

Emerging Dimensions of Business, Economics, Media and Financial Services in the 21st Century

Edited by

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PREFACE

In an era of rapid technological advancements, shifting global landscapes, and evolving consumer behaviours, the 21st century has brought about unprecedented challenges and opportunities for businesses, economies, media, and financial services. The pace of change is relentless, and staying ahead of the curve requires a deep understanding of the emerging dimensions that are reshaping these fields.

This edited book aims to provide a comprehensive and nuanced exploration of the latest trends, innovations, and disruptions that are transforming the world of business, economics, media, and financial services. Bringing together the expertise of renowned scholars and practitioners, this volume offers a unique perspective on the complex interplay between technological, economic, social, and regulatory factors that are driving change in these sectors.

The chapters in this book are organized around several key themes, including the impact of digitalization on business models, the rise of sustainable finance and socially responsible investing, the evolving role of media in shaping public discourse, and the challenges and opportunities presented by emerging technologies such as artificial intelligence and blockchain.

Through a combination of theoretical insights, empirical analysis, and practical case studies, this book provides a rich and multifaceted exploration of the emerging dimensions of business, economics, media, and financial services in the 21st century. We hope that it will serve as a valuable resource for scholars, policymakers, and practitioners seeking to navigate the complexities of this rapidly changing landscape and capitalize on the opportunities that it presents.

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Impact of Emolument on the Work Satisfaction: A Case of Tea Plantation Workers in West Bengal

Indranil Ganguly*

Abstract

The tea industry contributes substantially to the Indian economy as it is one of the leading export products and is instrumental in employment generation for unskilled, semi-skilled and skilled workers engaged in plucking tea leaves from the bushes, processing tea leaves in the factory and serving the in the industry. Unskilled and semi-skilled workers who are in high demand, due to the absence of skill have to depend more upon the earnings from the services they render to cater to the consumption demand of their families. So, earning from the tea sector has a pertinent place for such workers. On the other hand, since the tea industry relies upon the collection of tea leaves and their processing which is done by workers, efficiency and efficacy of the performance of workers is very important for which, their satisfaction is essential. The workers who are not skilled, do not expect non-financial incentives as a priority and to meet their basic needs, their preference is financial incentives. The present research aims to inspect the impact of emoluments on workers' job satisfaction in the context of Darjeeling. The study tries to seek the answers to the research problem the perspectives of examining the satisfaction level of tea plantation workers with their work and

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the impact of pay/emolument on their satisfaction with their job. To empirically examine the research problem, Solvin's (1960) sample size formula is used on 400 workers taken through a simple random sampling technique. In this regard, permanent workers are considered for taking the sample. Structured Scale – 1) Warr, Cock and Wall (1979) 'Job Satisfaction Survey' scale and 2) Pay Satisfaction Questionnaire developed by Heneman III, H.G. and Schwab, D.P. (1985) were used to collect principal data. Descriptive statistics and regression analysis statistical tests were used to analyze the primary data. The result of the study found that tea plantation workers are satisfied. Regression analysis revealed that when pay increases, job satisfaction increases. So, pay has an impact on job satisfaction.

Keywords: *Tea Plantation Workers, Pay/Wages and Job Satisfaction.*

Introduction:

In the North of West Bengal, there are organised and unorganised sectors. Un-organized sector is termed as small tea sector. Un-organised is not covered by the Plantation Labour Act, 1951. Organised sectors' factory workers and plantation workers are covered by the Plantation Labour Act, 1951. Labour in the organised tea estates resides in labour colonies inside the tea garden area. On the other side, small tea growers are hired temporarily. Temporary workers are appointed for farm jobs on a daily wage (Rs.150 per day) basis.

Darjeeling tea leaf is famous for its flavour and delightful golden colour. It is called 'Champagne' due to its colour. Dr. Campbell, Superintendent of Darjeeling, started a tea plantation in Darjeeling in 1840. At present, 87 tea estates are in Darjeeling. The area looks like an irregular triangle. Darjeeling is bordered by Nepal and Bhutan. Loamy soil is full of nitrogen which helps in the plantation growth of tea plants. Tea plantation in the region is characterized by the production of tea throughout the year.

History of the Tea Industry:

Tea is found almost 5000 years ago. Since 2700 BCE, tea has been available in China as per the record written in Britannica. In 2732 B.C. King Shen Nung discovered tea leaves. King Shen Nung called it "ch'a". "Ch'a" is a Chinese word which means 'to Check or investigate'. The history of tea is explained in the book

“All About Tea”, written by William Harrison Ukers in 1935. Yenissei, a Japanese Buddhist Monk realized the importance of tea to improve meditation. So, he took the first seed of tea to plant it in Japan. Japanese called him the ‘Father of tea in Japan’. By the route of the Portuguese, tea entered in whole of Europe. In 1606, the first shipment of tea was shipped from China to Holland. First-time tea was made available in England in 1650 which was also published on 23 September 1658 in the new book, *Mercurius Politicus* –‘Tea in England in 1650’ (The news published in London newspaper, September 1658). The East India Company started importing tea to Britain in 1664. The first tea shop for ladies was opened in 1717 by Thomas Twining. In 1824, tea trees with thicker leaves were revealed in Assam by Robert Bruce and Maniram Dewan. In 1837, the first English tea garden was established at Chabua in Upper Assam. Scottish gentleman, Robert Bruce started tea formation in Tezpur, Assam in the early 19th century. Maniram Dewan established the 1st tea garden in Assam and started a plantation for the first time in Assam and tea was exported to England in 1938.

Concept of Wages or Pay in Context to the Tea Industry:

The cash received as remuneration for the daily performance of the tea plantation by workers is called a wage. Collective bargaining was chosen as a tool to determine the wages for tea plantation workers instead of setting fixed wages as per the Minimum Wages Act 1948. A tea plantation worker plucks daily around 20 to 25 kg of tea leaves. The tea plantation workers receive wages based on their performance. The tea plantation workers get additional remuneration as an overtime benefit when they pluck more quantity of tea leaves in a day. Tea plantation workers receive nearly Rs. 200 per day wage. “Wage” is the allowances or earnings from the employer against work performance which is calculated based on the last day’s performance. It is a financial reward paid by an employer to the employees in exchange for the job done. It is calculated either hourly daily or monthly basis.

Concept of Job Satisfaction:

Job satisfaction states a positive feeling of an individual about the job. It is not self-satisfaction or self-contentment. It is a feeling of workers regarding their work. It is influenced by different factors

and is associated with achievement. The term 'Job satisfaction' was taken into the limelight by Hoppock (1935). Hoppock (1935) stated that it is "any combination of psychological, physiological and environmental circumstances that cause a person truthfully to say that he is satisfied with his job. Workers' job satisfaction means - workers are satisfied with the work itself, wages, recognition and relationship with supervisors and co-workers etc. Psychological thinking of an individual's feeling is his pleasure with the job itself, but it is defined in different ways. There are two vital dimensions to job satisfaction; Individual feeling towards one's job and Individual feeling regarding - how well an individual's expectations are met from his or her job. The words 'job attitude' and 'job satisfaction' are quite similar. However, attitude states the tendency to respond while satisfaction relates to the performance factors.

Conflict of Interest:

Darjeeling Tea Plantation Skilled Workers received Rs. 250 per day as a wage. Whereas, Industrial workers received Rs. 399.70 per day as of 31.12.2023 and Agriculture Skilled Employees' received Wage on an average of Rs. 500. Therefore, the tea workers moved towards the industry or other agriculture sectors. Presently it is a challenge for tea sectors to retain their workers.

Table 0.1: Agriculture Employees' Wage, w.e.f. 01.04.2024

Category of worker	Rates of wages including V.D.A. Area wise per day (in Rupees)		
	'A'	'B'	'C'
Unskilled	497	454	449
Semi-Skilled / Unskilled Supervisory	542	499	459
Skilled/ Clerical	589	542	498
Highly Skilled	652	607	542

Source: Chief Labour Commissioner (Central) <https://clc.gov.in/clc/node/745>

Reviews of Literature:

The literature reviews are divided into three parts, i.e. Pay/Wage, Job Satisfaction and Pay and Job Satisfaction.

Pay/Wages:

Chakraborti, et.al. (2022) while investigating the socio-economic conditions of tea estate workers in the Jalpaiguri district, observed that tea plantation workers in West Bengal are receiving one-third of the minimum wages. Based upon the results analyzed by applying ANOVA, the scholars found that there is a great disparity in monthly wages earned and the nature of the job. However, the majority of the workers receive monthly wages between Rs. 3000 to Rs. 6000 and the majority are seasonal workers.

Rafeeqe and Sumathy (2021) find that due to low-level skills, illiteracy and ignorance, the majority of the women workers in the unorganized segments are getting low wages. They argued that due to excess women labour, they are facing exploitation. As per their findings by using the Friedman Rank Test and Chi-Square test, the mean score of wages is low and 'away from play of stay'.

Rahman (2020) states that the tea estate workers of Sylhet region are very unhappy due to the low wages paid to them. The author believes that there is a disparity in wages being paid to the tea estate workers. It has been recommended that the discrimination in wages should be replaced.

Sarkar and Reji (2019) noticed that tea plantation workers and their families have to starve and die due to a lack of food in the Northeast region of India. The study reveals that tea estate workers are unable to buy sufficient food due to low wages. While comparing the wage structure of workers engaged in tea plantation work in North and South India, the study finds that North Indian tea workers are receiving comparatively low wages due to low increments in wages and lack of coordination between the management in state and union government.

Job Satisfaction:

Santhosh (2019) examined the effects of Job dis-satisfaction like non-interest in doing work, stress, irregular offs and leaves from work, low loyalty to the boss, and negative attitude towards the company in the tea Industry in the Idukki District, Kerala, India. The research implies that job dissatisfaction is allied with low productivity.

Priyadarshan (2019) studied the causes of dissatisfaction of labourers, like lockouts and strikes. The study also investigates the facilities offered to the workers to achieve job satisfaction levels. The author finds that about the level of satisfaction, workers are segregated. Thus, it has been recommended that the management of the tea industries must take managerial initiatives to incentivize and motivate workers to satisfy them.

Kouranage Perera (2018) examined the relationship between work satisfaction and work productivity of tea plantation employees' in Sri Lanka. The result exhibited that work satisfaction had positively significant impact on productivity.

Jaganathan and Palanichamy (2017) investigated the satisfaction levels and problems faced by the small tea growers' in the Nilgiris District of Tamil Nadu. The study asserts that marketing facilities, availability of tea plants, profits of the tea plants, availability of loan facilities, price of tea and activities of the tea board are the criteria for determining the satisfaction level of the workers in tea estates. On the other hand, the study emphasizes upon lack of cooperation, unavailability of loans and lack of transportation facilities as the factors that emerged in the form of problems being faced by the tea garden workers for which it has been recommended that the management of the tea gardens must be efficient and must pay attention to facilitate and deal with such problems of the workers.

Banerjee, (2015) has stated the different ways to achieve job satisfaction and reduce burnout of tea garden executives. Emotional tiredness, depersonalization and mental tiredness have been stated as the measuring components of Burnout. The study advocates that biographic variables are weak in determining the relationship with job satisfaction which needs to be improved.

Pay and Job Satisfaction:

Raza and Khan (2019) developed a conceptual model between pay and job satisfaction based on secondary data sources. The study finds that pay has a positive impact on job satisfaction.

Malik et al. (2012) investigated the impact of pay and promotion on recognized private and public sector university educators' job

satisfaction in Punjab, Pakistan. According to them, pay is highly stuck on work satisfaction but it had less impact on promotion.

Judge et al. (2010) examined the association among pay level with work satisfaction and pay satisfaction through meta-analysis. Based upon the results of Meta-analysis the authors find that pay level has positively correlated with job satisfaction and pay satisfaction.

While examining the relationship between factors of job satisfaction (Pay, recognition, promotion, supportive management, job involvement, organizational commitment, work effort and self-expression) and determining the overall job satisfaction of three commercial banks (Standard Chartered Bank, United Bank of Pakistan and Allied Bank Limited) executives from Islamabad and Rawalpindi in Pakistan, Hanif and Kamal (2009), analyzed that pay is a major factor of job satisfaction. However, other factors (promotion, recognition, job involvement and commitment) are also important. The study concludes that satisfied employees are approachable and responsible which creates interest to attract customers. Whereas, dissatisfied employees create customer dissatisfaction.

Chaudhry et al. (2011) compared public-sector and private-sector employees' salary satisfaction in addition to the relationship between salary and job satisfaction of public-sector and private-sector employees as per job involvement, work inspiration, employee performance and motivation. By applying the Z test and regression analysis they analyzed that public sector employees have more salary satisfaction compared to private sector employees and there is a positive relationship between salary satisfaction and job satisfaction among the public as well as private sector employees.

Research Gap and Purpose of the Study:

Based upon the foregoing selective research reviewed on pay with wages, job satisfaction and the relationship of job satisfaction with pay, it is revealed that wages of the workers have been stated by scholars as low with low levels of wage increments and there exists a lack of coordination between management of state and union government. Job discrimination causes a low level of productivity among the workers. Due to job dissatisfaction, there are chances

of lockout and strikes with the existence of a segregated workforce which needs to be motivated. The problems being faced by the management to satisfy and incentivize workers are related to marketing, profitability position and pricing of tea, board activities, lack of coordination, unavailability of loans, lacking transportation facilities and biographical variables of workers. Scholars have advocated that pay has a direct relationship with job satisfaction. However, the impact of pay on job satisfaction has not been justifiably examined so far.

So, the study investigates the job satisfaction level of tea plantation workers in the Darjeeling Tea Industry about the wages paid.

Research Methodology:

Objective:

The objectives of the present research are as under:

1. To identify the Job Satisfaction level of tea plantation workers in the Darjeeling tea Industry
2. To study the impact of pay/wages on job satisfaction of tea plantation workers in the Darjeeling Tea Industry.

Materials and Methods: To describe the given phenomenon the study used descriptive research design. Solvin's (1960) sample size formula is used to identify the sample size. This sample size formula is used because the population is known. A simple random sampling method is used to select 392 tea plantation workers from the Darjeeling Tea Industry. Darjeeling Tea Industry includes Darjeeling, Terai and Dooars. The employees of these areas are registered employees. Small tea growers are entrepreneurs. They are hiring employees for agricultural purposes who have also been taken for getting primary information. Data was collected through a structured scale developed by Warr, Cock and Wall in 1979 (job satisfaction survey). The pay Satisfaction Questionnaire developed by Heneman III, H.G. and Schwab, D.P. (1985) has also been used. The Likert scale has been used. The data collection instruments are divided into three parts, i.e., Part A Demographic factors, Part B asks questions regarding pay/wage satisfaction and Part C provides detailed information regarding job satisfaction. The data was collected during winter vacation, i.e., December to

February 2022. The study used some secondary data. Secondary data was collected through published journals, articles and books. Descriptive statistics and Linear regression analysis are used to analyze the data.

Results:

Demographic Profile of Respondents:

The demographic profile of the respondents is depicted as under:

Table 1: Gender-wise Classification					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	116	28.9	28.9	28.9
	Female	285	71.1	71.1	100.0
	Total	401	100.0	100.0	

The above table 1 shows that in the Darjeeling Tea Industry, the majority of the workers as women as non-probability convenience sampling indicated the majority of the respondents were women. There are 285 respondents' female tea plantation workers and 116 male workers.

Table 2: Educational Qualification-wise Classification					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No school	243	60.6	60.6	60.6
	upto class 8	113	28.2	28.2	88.8
	upto 12 /ITI / Diploma	45	11.2	11.2	100.0
	Total	401	100.0	100.0	

Educational qualification-wise, the great majority are illiterate and for those who are literate, their educational level is very low. As per the sample, in Darjeeling Tea Industry 243 tea plantation workers have no schooling experience. 113 tea plantation workers have schooling experience up to class 8. Only 45 employees have 12 /ITI / Diploma experience.

Objective 1: To examine the present Job Satisfaction level of tea plantation workers in Darjeeling tea Industry

Table 3: Job Satisfaction Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low Job Satisfaction	150	37.4	37.4	37.4
	Moderate Job Satisfaction	128	31.9	31.9	69.3
	High Job Satisfaction	123	30.7	30.7	100.0
	Total	401	100.0	100.0	

From the above table 3, it is clear that presently 150 tea plantation worker respondents have low job satisfaction levels. 128 tea plantation workers have moderate satisfaction levels and 123 tea plantation workers have high satisfaction levels.

Objective 2: To study the impact of pay/wages on the job satisfaction of tea plantation workers in the Darjeeling Tea Industry.

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.425a	.181	.179	3.86138

a. Predictors: (Constant), Pay

From the above table 4, it is found that the r (Correlation) value is .425. It means pay is moderately correlated with job satisfaction. The adjusted R square value is .179 which explains that the variance in job satisfaction is explicated by the pay.

Table 5: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1312.697	1	1312.697	88.040	.000b
	Residual	5949.203	399	14.910		
	Total	7261.900	400			

a. Dependent Variable: JS

b. Predictors: (Constant), Pay

The above table 5, analyses whether the forecaster variables of the study explain significant variance in the result variable (dependent variable). The statistically significant value is .000 which is less than 0.05 and it proves that there is a statistically significant change between pay and the dependent variable (Job Satisfaction). So, the proposed hypothesis is statistically proven.

Table 6: Coefficients

Model B		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		Std. Error	Beta			
1	(Constant)	66.482	1.459		45.565	.000
	Pay	2.403	.256	.425	9.383	.000

a. Dependent Variable: JS

The above coefficient table 6, reveals that the factors of the predictor variables show that individual factors of the predictor variables have a significant impact on job satisfaction because the value is lower than the significance level of 0.05. So, the significant value (Sig. value or p-value) for pay is 0.000 which is less than 0.05 ($\text{Sig} = 0.000 < 0.05$) therefore, shows that pay has a significant impact on job satisfaction. It means when pay is increased by one unit, job satisfaction is probable to increase by 2.403 units.

Conclusion of the Study

The study concludes that pay is a very important element to surviving life. But due to low pay tea plantation workers are struggling. It is also found from the literature that pay is an important factor in job satisfaction. Job satisfaction is a positive feeling of an individual regarding their job. The study investigates two things, i.e., 1. Job Satisfaction level of tea plantation workers in Darjeeling Tea Industry and 2. Impact of pay/wages on job satisfaction of tea plantation workers in Darjeeling Tea Industry. After conducting quantitative research the study found that tea plantation workers were satisfied. Emphasis needs to be placed upon their wages or pay and its induction for ensuring their level of job satisfaction which would ultimately influence the performance of the tea industry.

Research ethics was maintained properly during data collection.

The implication of the study:

The research would be a modest attempt of the researchers for the management of the tea industry to take necessary steps to motivate wage earners and to pay special attention to their job satisfaction dimension to improve productivity and profits. Further, it would be instrumental for the state and the union government to recapitulate the managerial initiatives in the interest of the growth of the tea industry which is useful for the nation's economy and exports. The researchers will also be able to get the necessary research inputs to go into depth on such a relevant research area. Apart from that, the study will have theoretical contributions as

- Agricultural and Manufacturing sectors will get a boost and be much more important in the Indian Economy.
- Workers are the heart of the organization. So, the satisfaction of workers is an essential issue. Darjeeling Tea Industry needs a good job satisfaction policy. Other organizations can also adopt the Darjeeling tea industry's job satisfaction policies.

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Exploring User Perceptions and Preferences for Innovative Financial Platforms: Risks, Engagement, and Key Features

Biraj Datta*, Sanjukta Saha** & Kaushik Das***

Abstract

This study investigates students' perceptions, preferences, and behaviors concerning innovative financial platforms, with a focus on understanding the risks, engagement drivers, and desired features among students in emerging markets. Portrayal on primary data from a survey of 119 college students in Nagaon, India, the research identifies fraud and scams, cybersecurity threats, and regulatory gaps as the most significant risks deterring adoption. Additionally, the findings highlight that mobile payment apps are the preferred financial tools, driven by their affordability, accessibility and user-friendly interfaces. Key features sought by users include security, ease of use, and low fees, underlining the importance of trust and cost-effectiveness in platform design. The study also reveals diverse patterns of information-seeking behavior, emphasizing the role of informal networks and self-directed learning

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in shaping user engagement. By addressing these insights, the research contributes to the development of fintech solutions tailored to user needs, promoting financial inclusion and enhancing trust in emerging markets.

Keywords: Innovative Financial products, cybersecurity threats, financial inclusion, Students preferences.

Introduction:

The rapid advancement of financial technology (fintech) has transformed the delivery and consumption of financial services, giving rise to a variety of innovative platforms designed to meet the growing needs of users. These platforms, which include digital investment tools, robo-advisors, and crowdfunding services, offer the assurance of enhanced convenience, accessibility, and personalized financial management. However, their adoption and success hinge on a nuanced understanding of user perceptions, preferences, and behaviors, as well as identifying concerns around risks, usability, and desired features. Previous research considered some critical factors influencing user engagement. For example, studies have emphasized that convenience, cost-effectiveness, and real-time analytics are key drivers of millennials' use of digital investment tools (Brown & Wilson, 2019). Similarly, transparency, low fees, and real-time portfolio tracking have been identified as the most desired features in robo-advisory platforms, underlining the importance of affordability and trust (Gupta & Tan, 2020).

Despite these advancements, major barriers to adoption persist, particularly in rural and underserved areas, where lack of digital literacy and inadequate infrastructure limit access to these technologies (Silva & Gomez, 2021). Trust dynamics further obscure user engagement, as research indicates that transparent communication and the availability of verified project information are crucial for fostering confidence in crowdfunding platforms (Lee & Park, 2018). These findings underscore the multifaceted nature of user expectations and the challenges faced by developers in creating platforms that are both effective and comprehensive.

Building on this foundation, the present study pursues to provide a wide-ranging exploration of user perceptions, preferences, and behaviors regarding innovative financial platforms. By examining the relationship between perceived risks, factors that drive user engagement, and the features users value most, this research

aims to suggestion actionable insights for the development of user-centric fintech solutions. Ultimately, the study seeks to bridge gaps in existing knowledge and contribute to the design of financial technologies that not only meet user needs but also address broader issues of accessibility, trust, and inclusivity.

Objective of the Study:

The present study is intended to understand user perceptions, preferences, and behaviors regarding innovative financial platforms, focusing on risks, engagement factors, and desired features.

The Subsequent sections of the study have been outlined as follows: Section 2 presents the literature review related to the topic. Section 3 describes the research methodology. Section 4 outlines the empirical results and discussions. Section 5 provides the conclusion.

Literature Review

Davis et al. (2021) accompanied a quantitative study to examine the various factors influencing the adoption of fintech platforms in evolving markets. To analyse user behaviour Technology Acceptance Model (TAM) was employed by considering 500 respondents. The study recognized trust, ease of use, and perceived usefulness as the most important predictors of fintech adoption. These findings highlight the significance of building user confidence and ensuring native platform designs to improve user engagement in emerging markets. To compare user preferences for mobile banking features, Chen and Lee (2019) used Multinomial regression analysis and find that Users generally preferred those platforms which offers personalization, real-time updates, and seamless user interfaces. Smith and Kapoor (2020) on their mixed-methods approach aimed to explore user perceptions of risks associated with blockchain-based financial services. The study applied both quantitative and qualitative methodologies and surveyed 300 blockchain users and 20 in-depth interviews. The key findings revealed that security vulnerabilities, such as hacking and data breaches, and regulatory uncertainty were the primary threats perceived by users and also underscores the critical need for superior security measures and stronger

regulatory frameworks to build user trust in blockchain-based platforms. A cross-sectional study was conducted by Kumar et al. (2022) to measure the role of financial literacy in engagement with fintech. By applying Structural equation modeling (SEM) the findings demonstrated that higher levels of financial literacy significantly enriched user engagement and trust in fintech platforms. This study also highlights the importance of promoting financial education that it will increase user confidence and active participation in innovative financial services. A quantitative study conducted by Rahman et al. (2020) to examine the impact of regulatory awareness on fintech adoption, regression analysis is adopted for achieving the objective. The findings direct that regulatory clarity plays a crucial role in nurturing trust, which, in turn, boosts adoption rates. This effect is particularly distinct among risk-averse users, who depend on transparent and well-communicated regulations to alleviate perceived risks. The study by Johnson and Clark (2018) provides valuable understandings into the adoption of peer-to-peer (P2P) lending platforms, highlighting a user-centric perspective. Conducted as a qualitative study, the research utilized grounded theory analysis to explore the motivations of 30 P2P lending users. The findings highlight three primary drivers for participation in these platforms. Firstly, users are attracted by the potential for higher returns. Secondly, the study discloses the appeal of community engagement, where users feel a sense of connection and participation in a collaborative financial ecosystem. Finally, dissatisfaction with conventional banking services, including lack of personalization and perceived inefficiencies, drives individuals toward P2P platforms as an alternative. Ahmed and Zhang (2021) conducted a systematic review of 50 peer-reviewed articles to observe cybersecurity risks associated with digital financial platforms. Their synthesis highlights that identity theft, data breaches and phishing are the most ubiquitous risks threatening the security of these platforms. The study underlines the critical need for strong cybersecurity measures and user awareness to minimize these threats and ensure the safe adoption of digital financial technologies. Brown and Wilson's (2019) quantitative study explores the factors influencing millennials' engagement with digital investment platforms. Employing cluster analysis, the authors identified three key drivers: convenience, cost-effectiveness, and access to

real-time analytics. Their findings reveal the importance of user-friendly interfaces, affordable investment options, and advanced technological features in attracting millennials to these tools. Through conjoint analysis of responses from 400 users Gupta and Tan's (2020) quantitative study examines user preferences for features in robo-advisory platforms for wealth management., the study found that the most desired features are transparency, low fees, and real-time portfolio tracking. These findings underscore the importance of building trust, affordability, and user engagement through real-time data, offering valuable guidance for designing user-centric robo-advisory services. Lee and Park's (2018) qualitative study investigates the role of trust in the success of crowdfunding platforms. Through 50 interviews with platform users and thematic analysis, the research highlights that clear communication and verified project information are critical for fostering trust. These findings emphasize the importance of credibility and openness in enhancing user confidence and engagement within crowdfunding ecosystems. Silva and Gomez's (2021) mixed-methods study inspects the challenges hindering the adoption of fintech platforms in rural areas. Portrayal on survey data from 300 respondents and insights from 15 focus groups, the study identifies lack of digital literacy and inadequate infrastructure as the chief barriers. These findings highlight the need for targeted interventions, such as digital education programs and improved technological access, to bridge the gap in fintech adoption within underserved rural communities.

Research Methodology:

This study implements a descriptive research design to explore user perceptions, preferences, and behaviors regarding innovative financial platforms, with a focus on risks, desired features and engagement factors. The scope of the study is limited to students enrolled in government degree colleges in Nagaon town, which contains a total population of approximately 4,500 students. A sample size of 119 students has been selected to ensure the study's findings are representative. Samples are collected using a simple random sampling technique. This approach helps minimize bias and confirms each respondents have an equal chance of being included in the sample.

Data for the study was collected using both primary and secondary sources. Primary data were gathered directly from students through a well-designed questionnaire distributed via Google Forms. The questionnaire is structured to produce quantitative data, ensuring the responses can be systematically analyzed. Secondary data were obtained from relevant journals, reports, and other credible sources to provide context and support for the primary data findings.

To analysing the collected data, the study utilized tables and visual diagrams, including pie charts and bar graphs, to present the findings clearly and effectively. Descriptive statistical methods were employed to summarize and interpret the data, providing insights into the trends, preferences, and risk perceptions of the target group. This approach ensures a comprehensive understanding of the subject while maintaining a systematic and transparent research process.

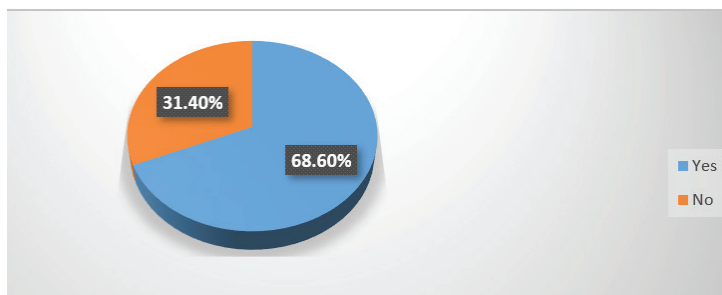
Results and Discussions:

Table 1: Whether the students are aware of risks associated with innovative financial platforms or not.

Responses	Frequency	Percentage
Yes	97	81.5 %
No	22	18.5 %

Source: Compiled by authors

Figure 1. Whether the students are aware of risks associated with innovative financial platforms or not.



Source: Authors own work

The study reveals a high level of awareness among students regarding the risks associated with innovative financial platforms. Out of the 119 respondents, 81.5% (97 students) indicated that they are aware of the risks, while 18.5% (22 students) reported a lack of awareness. This indicates that the majority of students recognize the possible challenges and uncertainties linked to the use of such platforms. However, the existence of minority who are unaware highlights the need for targeted educational initiatives to enhance financial literacy and risk awareness among students.

Table 2. Types of risk which are significant.

Types of risk	Frequency	Percentage
Cybersecurity threats	43	38.4 %
Fraud and scams	81	72.3 %
Volatility of returns	30	26.8 %
Lack of regulation	25	22.3 %
Others	5	4.2 %

Source: Compiled by authors

Figure 2. Types of risk which are significant.



Source: Authors own work

The study identifies fraud and scams as the most significant risk associated with innovative financial platforms, reported by 72.3% of respondents. Cybersecurity threats follow, with 38.4%

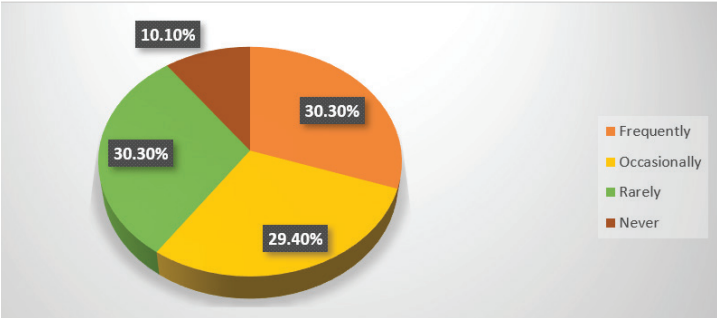
of students expressing concern. Other notable risks include the volatility of returns (26.8%) and lack of regulation (22.3%). A small percentage (4.2%) highlighted other type of risks. These findings indicate that students primarily noticed that fraud and cybersecurity issues as the most pressing concerns, emphasizing the need for robust security measures and regulatory oversight to enhance trust and safety on these platforms.

Table 3. How often students seek information about innovative financial products (e.g., through articles, videos, or workshops).

	Frequency	Percentage
Frequently	36	30.3 %
Occasionally	35	29.4 %
Rarely	36	30.3 %
Never	12	10.1 %

Source: Compiled by authors

Figure 3. How often students seek information about innovative financial products (e.g., through articles, videos, or workshops).



Source: Authors own work

The study reveals diverse patterns in how often students seek information about innovative financial products. A significant proportion of students actively engage with such content, with 30.3% reporting frequent searches and another 29.4% seeking information occasionally. However, an equal percentage (30.3%) indicate they rarely explore such resources, and 10.1% never do so. These findings suggest a mixed level of interest and engagement among students, highlighting the need for accessible and

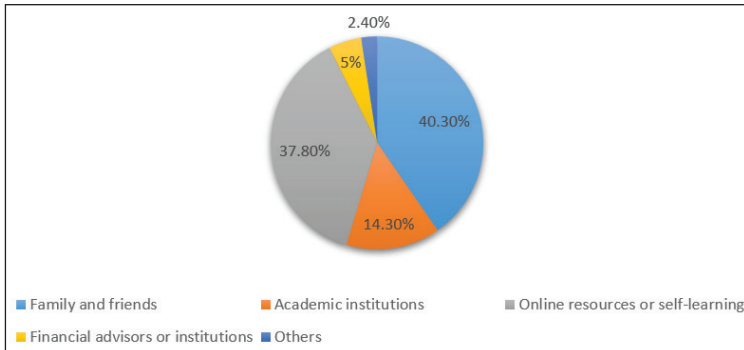
appealing educational resources to encourage more consistent information-seeking behavior and enhance their understanding of innovative financial products.

Table 4. Factors which influences Students' knowledge or use of these platforms the most.

	Frequency	Percentage
Family and friends	48	40.3 %
Academic institutions	17	14.3 %
Online resources or self-learning	45	37.8 %
Financial advisors or institutions	6	5 %
Others	3	2.4 %

Source: Compiled by authors

Figure 4. Factors which influences Students' knowledge or use of these platforms the most.



Source: Authors own work

The study highlights the key influences on students' knowledge and use of innovative financial platforms. Family and friends appear as the most significant influence, cited by 40.3% of respondents, followed closely by online resources or self-learning, which influence 37.8% of students. Academic institutions play a smaller role, impacting 14.3% of respondents, while financial advisors or institutions account for only 5%. A minimal 2.4% attribute their knowledge to other sources. These findings

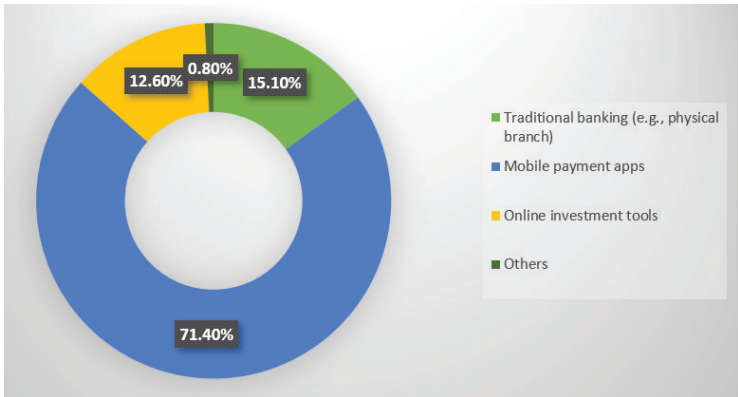
emphasize the crucial role of informal networks and self-directed learning in shaping students’ familiarity and engagement with these platforms.

Table 5. Type of financial platform students prefer the most.

Financial platforms	Frequency	Percentage
Traditional banking (e.g., physical branch)	18	15.1 %
Mobile payment apps	85	71.4 %
Online investment tools	15	12.6 %
Others	1	0.8 %

Source: Compiled by authors

Figure 5. Type of financial platform students prefer the most.



Source: Authors own work

The study reveals that mobile payment apps are the most preferred financial platforms among students, with 71.4% favoring them. Traditional banking, such as physical branch visits, is favored by 15.1% of respondents, while 12.6% opt for online investment tools. A minimal 0.8% shown a preference for other platforms. These findings suggest that convenience, accessibility, and the user-friendly nature of mobile payment apps resound strongly with students, making them the foremost choice. In contrast, traditional banking and investment tools play a relatively smaller

role, indicating a shift in preference toward digital and mobile-first financial solutions among the younger generation.

Table 6. Features a student look for in a financial platform.

Types of risk	Frequency	Percentage
Ease of use	65	54.6 %
Security and reliability	81	68.1 %
Low fees	53	44.5 %
Wide range of services	44	37 %
Others	6	5 %

Source: Compiled by authors

Figure 6. Features a student look for in a financial platform.



Source: Authors own work

The study identifies security and reliability as the most required-after feature in a financial platform, with 68.1% of students prioritizing it. Ease of use follows closely, valued by 54.6% of respondents, highlighting the importance of user-friendly interfaces. Low fees are a significant consideration for 44.5% of students, while 37% prefer platforms offering a wide range of services. A small percentage (5%) emphasized other features. These findings indicate that students prioritize safety and simplicity when selecting financial platforms, alongside cost-effectiveness and diverse functionalities, underscoring the need for platforms to balance robust security measures with accessibility and affordability.

Conclusion:

The study provides comprehensive insights into the perceptions, preferences, and behaviors of students regarding innovative financial platforms, offering valuable inferences for both developers and policymakers. The findings disclose that while a majority of students are aware of the risks associated with these platforms, fraud and scams (72.3%) and cybersecurity threats (38.4%) are identified as the most significant deterrents, highlighting the urgent need for robust security measures and clear regulatory frameworks to address these concerns. Despite these risks, mobile payment apps are the most preferred platforms, with 71.4% of respondents favoring them over traditional banking and online investment tools due to their accessibility, affordability, and user-friendly interfaces. The study also underlines the critical role of security and reliability as the most desired features, prioritized by 68.1% of students, followed by ease of use (54.6%) and low fees (44.5%), emphasizing the importance of trust, simplicity, and cost-effectiveness in platform design. Furthermore, the research highlights the influence of informal networks, with family, friends (40.3%), and online resources (37.8%) playing a pivotal role in shaping students' knowledge and use of these platforms, while formal institutions, such as academic programs and financial advisors, exert relatively less influence. A mixed pattern of information-seeking behavior is also obvious, as only 30.3% of students frequently explore resources on financial products, indicating a need for engaging and accessible educational initiatives to enhance financial literacy and informed decision-making. Collectively, these findings highlight the need for fintech solutions to prioritize security, affordability, and ease of use, while also addressing gaps in financial education and infrastructure to promote trust and inclusivity, particularly in emerging markets. By aligning platform features with user preferences and addressing key barriers, stakeholders can create more accessible, reliable, and user-centric financial ecosystems that empower young users and foster financial inclusion.

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The Impact of Microfinance on Rural Household Income

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Abstract

This study investigates the impact of microfinance on rural household income in five selected villages of Cachar district, Assam: Lalang Part-IV, Ujan Tarapur, Pailapool, Fulertal, and Kashipur. Employing a descriptive research design, the study uses both primary and secondary data. A sample of 150 microfinance beneficiaries was selected using purposive and convenience sampling methods. They were surveyed with structured questionnaires and interviews. Respondents were selected based on the criterion that they had availed themselves of microfinance loans at least six months prior to the study period, which spanned from August to December 2024. Socio-economic data reveal that most beneficiaries are female, aged 26–35 years, married, and engaged in agriculture. Using descriptive statistics and paired samples t-tests, the analysis demonstrates a significant increase in household monthly income post-loan, from an average of Rs. 5,144 to Rs. 8,408 (p-value < 0.001). These findings highlight the potential of microfinance as a catalyst for sustainable rural economic growth.

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Keywords: *Microfinance, socio-economic impact, income levels, Cachar district, Assam, India*

1. Introduction

Microfinance has emerged as a pivotal tool for fostering economic development and alleviating poverty in rural areas across the globe. By providing small-scale financial services, such as loans, savings, and insurance, to individuals who lack access to traditional banking systems, microfinance institutions (MFIs) have empowered millions to break free from the vicious cycle of poverty (Yunus, 2007). In the context of rural economies, where agriculture and small-scale enterprises are the backbone of livelihoods, access to credit and financial services plays a crucial role in enhancing household income and improving socio-economic conditions (Morduch, 1999).

India, with its vast rural population and diverse economic landscape, has embraced microfinance as an essential mechanism for financial inclusion. The government, along with non-governmental organizations (NGOs) and self-help groups (SHGs), has facilitated the growth of microfinance initiatives to address the credit needs of marginalized communities (NABARD, 2022). Despite its potential, the impact of microfinance on rural households' economic outcomes remains a subject of debate, with scholars emphasizing the need for localized studies to understand its implications better (Khandker, 2005).

This study delves into the impact of microfinance on rural household income in the Cachar district of Assam, a region characterized by its agrarian economy and socio-economic challenges. The district, like many rural areas in India, grapples with limited access to formal financial services, which hampers the growth of small-scale enterprises and agricultural productivity (Das, 2018). By examining the role of microfinance in this specific region, the study aims to provide valuable insights into its effectiveness in improving household income and driving rural development.

The research is structured to assess not only the economic benefits but also the socio-economic transformations triggered by access to microfinance. Through the analysis of primary data collected from 150 respondents across five villages, the study

highlights the demographic, occupational, and educational profiles of beneficiaries and evaluates the extent to which microfinance has influenced their income levels. By focusing on a specific geographical area, the research aims to contribute to the broader discourse on financial inclusion and rural development, offering evidence-based recommendations for policymakers and stakeholders to enhance the reach and impact of microfinance programs.

1.2 Objectives of the Study

The present study has the following objectives:

- i. To identify the socio-economic status of the beneficiaries of microfinance.
- ii. To study the impact of microfinance on the income level of the beneficiaries of microfinance.

1.3 Research Questions

1. What is the socio-economic status of the beneficiaries of microfinance in select villages of the Cachar district, Assam?
2. What is the impact of microfinance on the income level of the beneficiaries of microfinance in select villages of the Cachar district, Assam?

2. Literature Review

Theoretical Perspectives on Microfinance and Economic Development

The theoretical foundation of microfinance is grounded in development economics and theories of financial inclusion. According to the financial intermediation theory, microfinance institutions (MFIs) serve as intermediaries between savers and borrowers, facilitating the flow of funds to underserved populations (Robinson, 2001). The poverty alleviation theory posits that microfinance helps reduce poverty by providing the poor with access to capital, thereby enabling them to engage in productive economic activities (Yunus, 1999). Furthermore, the empowerment theory suggests that microfinance empowers marginalized groups, particularly women, by providing them with financial resources and decision-making power, which in

turn leads to improved social and economic outcomes (Mayoux, 2001).

Global Studies on the Socio-Economic Impact of Microfinance

Empirical research on the socio-economic impact of microfinance globally has yielded mixed results. Some studies have found significant positive effects on income, consumption, and poverty reduction. For instance, a study by Khandker (2005) in Bangladesh reported that microfinance participants experienced higher household incomes and reduced poverty levels. Similarly, Banerjee et al. (2015) found that microfinance interventions led to increased business investments and income in several countries. However, other studies have highlighted the limitations and challenges of microfinance, such as high-interest rates and over-indebtedness, which can undermine its potential benefits (Bateman & Chang, 2012).

Indian Context: Case Studies and Statistical Analyses

In India, the impact of microfinance has been extensively studied through various case studies and statistical analyses. Swain and Varghese (2011) examined the effects of microfinance on women's empowerment and economic well-being in rural India, finding that access to microfinance significantly improved women's autonomy and household income. Another study by Seibel and Almeyda (2002) highlighted the role of microfinance in promoting entrepreneurship and economic development in urban slums. Additionally, statistical analyses have shown that microfinance has contributed to financial inclusion and poverty reduction across different states in India (Sinha, 2005).

Specific Studies from the North-East India Region

Research on microfinance in North-East India, including Assam, has provided insights into the region's unique socio-economic dynamics. Sarma (2015) conducted a study on the impact of microfinance on income and poverty alleviation in Assam, finding that microfinance programs led to significant improvements in household income and living standards. Another study by Das (2016) explored the challenges and opportunities of microfinance in the North-East, emphasizing the need for tailored financial products and services to meet the specific needs of the region's

diverse population. Kumar and De (2018) investigated the role of self-help groups (SHGs) in enhancing financial inclusion and social cohesion in rural Assam, highlighting the positive impact of microfinance on community development.

Research Gaps

Despite the extensive research on microfinance, several gaps remain, particularly in the context of Cachar district, Assam. Existing studies often focus on the broader impacts of microfinance in various regions, but there is limited research specifically addressing the socio-economic outcomes and income changes among beneficiaries in Cachar. While some studies have highlighted the general benefits of microfinance, they often lack detailed analysis on how these financial services affect local cultural, economic, and social dynamics unique to Cachar (Kumar & De, 2018; Sarma, 2015). Moreover, there is a need for longitudinal studies that track the long-term impacts of microfinance on household income and poverty alleviation in this region.

3. Research Methodology

This study employs a descriptive research design, utilizing both primary and secondary data sources. Secondary data are gathered from various books, journals, research articles, reports, and theses. Primary data are collected using structured questionnaires and interview methods directly from the microfinance services beneficiaries who are residing in the villages of Lalang Part-IV, UjanTarapur, Pailapool, Fulertal, and Kashipur in Cachar district, Assam. A purposive and convenience sampling method is used to select a sample size of 150 respondents, with 30 respondents chosen from each of the five selected villages. Respondents were chosen based on the criterion that they had availed of microfinance loans at least six months prior and had utilized the loan. To assess the impact of microfinance on the income levels of the beneficiaries, the study compares their income before availing of the loan and at least six months after receiving the loan. Primary data collection occurred between August 1, 2024, and December 31, 2024. The collected data are analyzed and interpreted using tables, graphs, and descriptive statistical tools such as mean, percentage, and paired samples t-tests.

4. Data Analysis

4.1 Socio – economic profile of the respondents

Age Distribution

The age distribution of the beneficiaries is shown in Table 1. It is observed that the majority of the respondents belong to the age group of 26 to 35 years which is 38.67 % of the total respondents. 34.67 % of the respondents are in the age group of 36 to 45 years and 17.33 % of the respondents are in the age group of above 46 years. Fewer respondents are below 25 years (9.33%). It can be inferred that the majority of the Microfinance beneficiaries of the select villages are under the age group of 26 to 35 years.

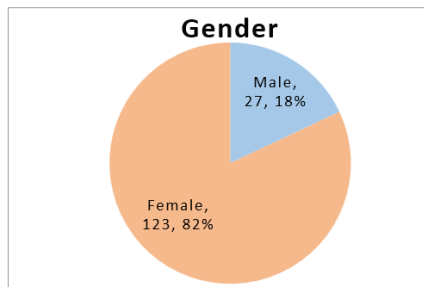
Table 1: Age Distribution of the respondents

Age Group	Frequency	Percentage
Below 25 years	14	9.33
26 – 35 years	58	38.67
36 – 45 years	52	34.67
Above 46 years	26	17.33
Total	150	100

Source: Primary data

Gender

Figure 1 represents the gender distribution of the respondents. It shows that most of the respondents are female which represents 82 % of the total respondents and 18% of the respondents are male. It can be inferred that the majority of the Microfinance beneficiaries of the select villages are Female.



Source: Primary data

Educational Status

Table 2 represents the educational status of the respondents. It is observed that most of the respondents have studied up to High School (32 %) followed by Primary level (26 %) and Higher Secondary school (20 %). Fewer respondents are illiterate (18.67 %). It can be interpreted that the majority of the microfinance beneficiaries of the select villages have studied up to the High School level of education.

Table 2: Educational status of the respondents

Education Status	Frequency	Percentage (%)
Illiterate	28	18.67
Primary Level	39	26
High School	48	32
Higher Secondary School	30	20
Graduate	5	3.33
Total	150	100

Source: Primary data

Marital Status

Table 3 represents the marital status of the respondents. It is observed that most of the respondents are Married (74.67 %) and 36 % of the respondents are Unmarried (24 %). Fewer respondents are widows/divorced (2 %). It can be interpreted that the majority of the microfinance beneficiaries of the select villages are married.

Table 3: Marital Status of the respondents

Marital Status	Frequency	Percentage (%)
Married	112	74.67
Un-married	36	24
Widow / Divorce	2	1.33
Total	150	100

Source: Primary data

Family Size

Table 4 represents the number of family members of the respondent. It shows that most of the respondents (45.33 %) have “3 – 5” members in their family. 42.67 % of the respondents have “6 – 9” members; 8 % of the respondents have more than or equal to 10 members; and 4 % of the respondents have only 2 members in their family. It can be interpreted that the majority of the microfinance beneficiaries of the select villages have a family size of “3 to 5” members.

Table 4: No. of Family Member

Member	Frequency	Percentage
2	6	4
3-5	68	45.33
6-9	64	42.67
10 and Above	12	8
Total	150	100

Source: Primary data

House Ownership Status

Table 5 represents the house ownership status of the respondents. It shows that most of the respondents are living in their own house (88.67 %) and 9.33 % of the respondents are living in their relative’s house. Fewer of the respondents are living in rented houses. It can be inferred that the majority of the microfinance beneficiaries of the select villages have their own house.

Table 5: House ownership status of the respondents

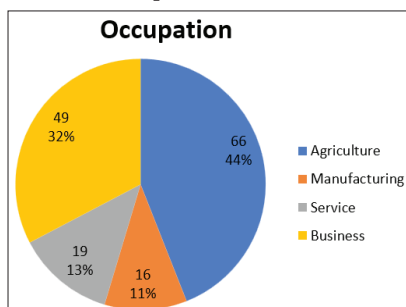
Status	Frequency	Percentage
Owned	133	88.67
Rented	3	2
Relative’s house	14	9.33
Total	150	100

Source: Primary data

Occupation

Figure 2 represents the occupations or activities of the respondents. It shows that most of the respondents are engaged in agricultural activity (44 %), which is followed by the activities of Business (32.66 %), Service (12.67 %) and Manufacturing (10.67 %). It can be inferred that the majority of the microfinance beneficiaries of the select villages are engaged in Agricultural activity.

Figure 2: Occupation of the respondents



Source: Primary data

Household Monthly Income

Table 6 represents the household monthly income of the respondents. It shows that most of the respondent's household monthly income is Rs. (7,001 to 10,000) i.e. 43.33 % of the total respondents. 30.67 % of the respondents' household monthly income is Rs. (4,001- 7,000); 17.33 % of the respondents' household monthly income is Above Rs. 10,000; and fewer (8.67 %) of the respondents' household monthly income is less than Rs. 4,0000. It can be interpreted that the majority of the microfinance beneficiaries of the select villages earned a monthly household income of Rs. (7,001 to 10,000).

Table 6: Household Monthly Income of the respondents

Income Group	Frequency	Percentage
Less than 4,000	13	8.67
4,001 – 7,000	46	30.67
7,001 – 10,000	65	43.33
Above 10,000	26	17.33
Total	150	100

Source: Primary data

Impact of Microfinance on income level of the beneficiaries

To study the impact of microfinance on the income level of the beneficiaries, we compare the household monthly income of the beneficiaries before availing microfinance loan and after availing microfinance loan (at least 6 months after receiving the loan). Table 7 represents the Descriptive statistics result of Household monthly income before & after microfinance.

Table 7: Descriptive Statistics						
	N	Range	Minimum	Maximum	Mean	Std. Deviation
M o n t h l y Income Before Microfinance	150	10500	1500	12000	5144.00	3140.245
M o n t h l y Income After Microfinance	150	13000	3000	16000	8408.00	4183.934
Valid N (list wise)	150					

Source: Primary data computed using IBM SPSS Statistics 27.0

Table 8 represents the paired sample t-test results of monthly household income before and after availing microfinance loan. It is observed that the resulting p-value is 0.001 which is less than 0.05. Therefore, we can interpret that there is a significant difference in household monthly income level before and after availing of microfinance.

Table 8: Paired Samples T-Test results

	Paired Differences			t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean			
M o n t h l y Income Before Microfinance - Monthly Income After Microfinance	-3264.000	1717.980	140.272	-23.270	149	.001

Source: Primary data computed using IBM SPSS Statistics 27.0

Summary of the findings & Conclusion

The main aim of the present study is to know the impact of microfinance on the income level of the beneficiaries and to identify the socio-economic status of the beneficiaries. The study is conducted based on five selected villages of Cachar district, Assam. To understand the income of the beneficiaries, we considered their household monthly income level. To identify the impact of microfinance on the income level of the beneficiaries, we compared household monthly income before taking a microfinance loan and at least 6 months after taking a microfinance loan. The comparison or analysis is conducted using paired samples t-test in IBM SPSS software (version 27.0).

The present study found that the majority of the beneficiaries are under the age group of 26 to 35 years and most of them are female. The majority of the beneficiaries have studied up to the High School level of education. Majority of the beneficiaries are married and they have a family size of 3 to 5 members, staying in their own house. Most of them are engaged in agricultural activities and their household monthly income is between Rs. 7,001 to Rs. 10,000. The study also found that there is a significant difference in household monthly income levels before and after taking a microfinance loan. Therefore, it can be concluded that there is a positive impact of microfinance on the income level of the beneficiaries.

The study has several limitations. It is geographically confined to the Cachar district of Assam, which limits the generalizability of the findings to other regions. The sample size of 150 respondents, selected through purposive and convenience sampling, may introduce selection bias and might not fully capture the diversity of experiences among all microfinance beneficiaries. Data collection relies on self-reported information, which can be subject to recall bias and inaccuracies. The study measures the impact over a short term (at least six months after loan receipt), potentially overlooking long-term effects. It focuses primarily on income levels and socio-economic status, excluding other relevant factors such as quality of life, health, and education. External influences like economic fluctuations and policy changes are not accounted for, and the data collection period might miss seasonal income variations, particularly in an agrarian setting.

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Geometric Brownian Motion and Its Application in the Forecasting of Bharat Heavy Electricals Limited Trends

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Abstract

This study evaluates the effectiveness of Geometric Brownian Motion (GBM) in predicting the stock market behavior of Bharat Heavy Electricals Limited (BHEL), specifically focusing on forecasting the open and close stock prices over a forthcoming ten-day period. Using historical share price data from July 14, 2023 to March 31, 2024, the GBM model is applied to predict stock price movements from April 1, 2024, to April 15, 2024. The results demonstrated high accuracy in the model's predictions, with discrepancies between forecasted and actual values generally narrow, highlighting specific instances of notable precision. Despite its effectiveness, the study identified limitations in predicting higher stock price values, suggesting a need for further model optimization to enhance accuracy at these data points. The findings emphasize the utility of advanced statistical models like GBM (Geometric Brownian Motion) in financial forecasting, aiding traders and investors in making informed decisions, with recommendations for future refinements to increase the model's applicability and precision across different market conditions.

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Keywords: *Stock market behavior; Forecasted values; Actual values; Financial forecasting; Investors.*

1. Introduction

The stock market provides a platform for buying and selling equity shares, where investors seek long-term growth and traders aim for short-term gains. Stock exchanges like BSE and NSE in India facilitate these trades through brokers offering online services. Key terms include “bull market” for rising prices and “bear market” for declines. Investors focus on profitable companies, as returns depend on careful selection and timing.

This study analyses stock market complexities, emphasizing structure, trading mechanisms, and strategies. It evaluates company performance, uses predictive models to forecast trends, examines derivatives, and employs tools like Geometric Brownian Motion to enhance decision-making and optimize profits.

2. Literature Review

The Markov chain model has been extensively utilized by scholars to analyse and forecast share price behaviour in the stock market due to its Markov properties, or short-term memory. Introduced by Russian mathematician Andrei Andreevic Markov (1856–1922), the Markov chain has long been applied in stock market analysis and prediction. Over the past decade, many studies have employed the Markov chain model to simulate stock market behaviour.

For instance, Aparna and Sarat (2015) evaluated the fluctuation of State Bank of India's (SBI) share price. Raheem and Ezepe (2016) measured and forecasted daily variations in share prices and return of the first-generation bank (NSM) on the Nigerian stock market using a different methodology. Bhusal (2017) analysed and forecasted the Nepal Stock Exchange Index (NEPSE) with the Markov chain model. Aparna and Kakaty (2017) predicted future potato prices using market data from June 4, 2014, to April 21, 2017, to forecast prices for the next fifteen days.

In the Indian stock market context, Padi et al. (2022) employed the Markov chain model for analysing and predicting stock market trends. They conducted an exploratory data analysis using real-

time data on daily closing prices of Nifty banks from the NSE. Their results indicated a high probability that Nifty Bank's closing price would rise if the bank was in a rising state. Singh et al. (2017) assessed a Markov chain model for forecasting Nifty 50's opening share price changes.

Dmouj (2006) described geometric Brownian motion, explaining it as a random walk and providing an analytical resolution based on this model. Omar and Jaffar (2014) also used the geometric Brownian motion model to predict closing stock prices for small businesses listed on the Malaysian stock exchange. Their study showed the model's accuracy in predicting short-term stock prices, specifically for a two-week period.

3. Data Set and Methodology

3.1 Data Set

Bharat Heavy Electricals Limited (BHEL), a leading Indian engineering and manufacturing PSU founded in 1964, plays a vital role in India's power sector by producing equipment for power generation like boilers, generators, and turbines. The Indian government's significant stake in BHEL underscores its strategic importance to the economy, particularly in infrastructure and energy.

Data collection for this analysis spans from July 14, 2023, to March 31, 2024—a period marked by notable events like the Chandrayaan-3 mission, highlighting BHEL's collaboration with ISRO and its impact on India's industrial and space technology advancements. Financial data from platforms like Yahoo Finance provides essential metrics, including daily closing prices and market capitalization, which are invaluable for financial research on BHEL.

3.2. Method and Design of Study

A stochastic process is a random process, that is, a change in the state of some system over time whose course depends on chance and for which the probability of a particular course is defined. It is basically a family of random variables, defined on a given probability space, indexed by the time variable t , where t varies over an index set T according to Thygesen (2023).

A variable is said to follow a stochastic process when its value changes in an unexpected way over time. A stochastic or random process is a family or collection of random variables that are indexed by a mathematical set so that each random variable in the process has a unique relationship with an element in the set. The values of each random variable in the family come from a set of numbers called the state space; this set is also called the index set or time set. It is this set that is utilized to represent the random variables. Stochastic processes are classified using the dependency relationships of the random variables, the state space, and the time parameter, together with the specification of the joint distribution function. The Markov chain is one specific type of random process among them. The Markov chain was initially introduced by Russian mathematician Andrei Andreevich Markov (1856–1922). The Markov chain is a distinct type of stochastic process in which the future value of the variable can only be inferred from its present value, not from its past data.

3.2.1 Brownian Motion

Brownian motion, also known as a Wiener process, is a mathematical model used to describe the random movement of particles suspended in a fluid. This phenomenon was first observed by botanist Robert Brown in 1827, who noticed that pollen grains in water moved in an erratic and unpredictable manner. The mathematical formulation of Brownian motion was later developed by Albert Einstein in 1905 and independently by Marian Smoluchowski, providing a theoretical foundation for understanding molecular motion by Einstein (1905)

Mathematically, Brownian motion is defined as a continuous-time stochastic process that satisfies the following properties defined by Karatzas and Shreve (1991)

1. $B(0) = 0$
2. The increments $B(t) - B(s)$ for $0 < s < t$ are normally distributed with mean 0 and variance $t - s$
3. The increments are independent.
4. $B(t)$ has continuous paths with probability 1.

Brownian motion is fundamental in various fields such as physics, finance, and mathematics. In physics, it describes the random movement of particles in a fluid. In finance, it is used to model stock prices and other financial instruments by Uhlebeck and Ornstein (1930)

3.2.1.1 Geometric Brownian Motion

An effective mathematical technique for forecasting asset values over time is the Geometric Brownian Motion approach. For BHEL, which has volatility, the Open and Close prices will be predicted using Geometric Brownian Motion in this study.

The financial market is a complicated system with many interrelated, nonlinear elements influencing it. Thus, it is crucial to know when and how to make judgments while trading this market (Naranjo et al., 2018). Derivative trading products are now attracting a lot of interest from traders and investors. This document is a financial contract that attempts to carry out a purchase or sale of commodities or assets between two or more parties (Gunarsa, 2019).

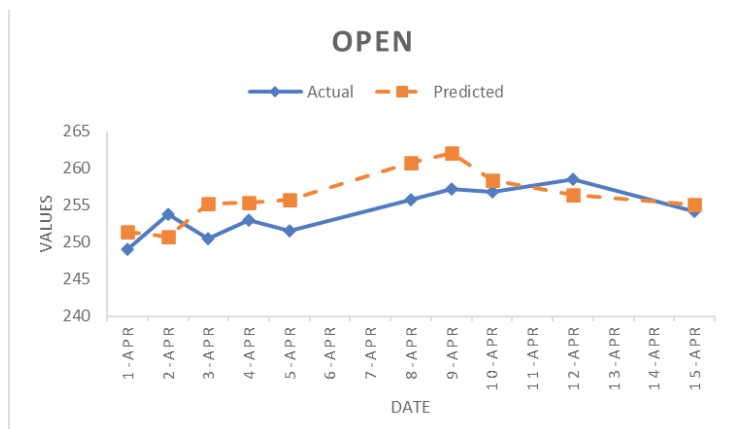
4. Results

The stock price of BHEL was gathered between July 14, 2023, and March 31, 2024. Geometric Brownian Motion is used to forecast the price for the next 10 days based on the past data of the stock price between these dates. The period of the 10 anticipated days is between April 1, 2024 – April 15, 2024.

4.1 Opening Stock Price

The opening stock price is the initial price at which a stock begins trading when the market opens for the day. Influenced by factors such as after-hours trading, news, and economic indicators, it reflects investor sentiment at the start of the trading session (Madura, 2020).

Figure1: Comparison of Actual and Predicted values of Opening Stock Price

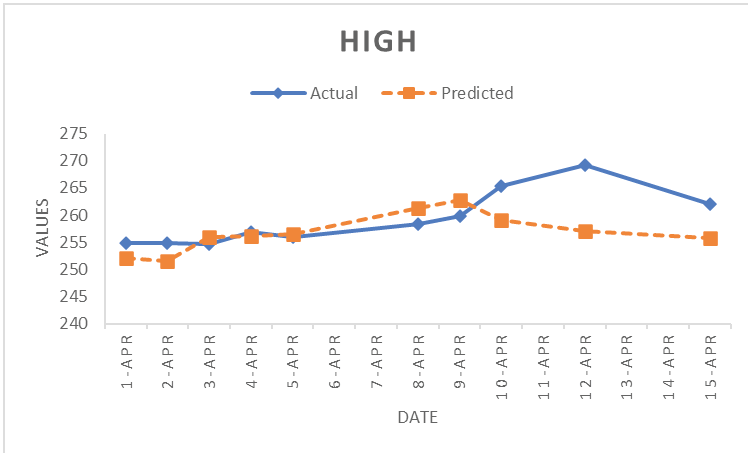


The forecasts closely align with actual stock prices on most days, underscoring their accuracy. Notably, predictions for April 10 and April 15 are especially precise, nearly mirroring the actual values. The typical deviation between forecasted and actual prices ranges between -3.5 and +3.5, demonstrating both accuracy and consistency. This level of precision suggests the robustness of the forecasting method, providing a strong foundation for informed decision-making with only minor adjustments needed for enhancement.

6.2 Highest Stock Price

The highest stock price is the maximum value a stock reaches during a specific trading period. This peak reflects heightened investor enthusiasm and favorable market conditions, often influenced by positive news or strong economic indicators. It represents the highest level of market confidence and demand for the stock during that time (Madura, 2020).

Figure 2: Comparison of Actual and Predicted values of Highest Stock Price pf the day

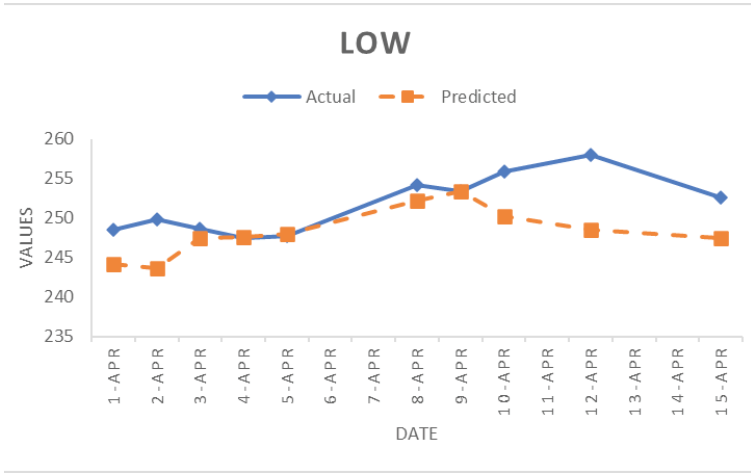


The forecasts in this dataset exhibit a strong level of accuracy, with many predicted values closely matching actual numbers. For instance, on days when the actual values were 256.9 and 255.9, the predicted values were 256.08 and 256.45, respectively. Discrepancies generally range from around -1.8 to +3.08, reflecting the model's accuracy. This consistent alignment between forecasts and actual figures highlights the model's ability to closely track real-world outcomes, underscoring its effectiveness as a forecasting tool.

6.3 Lowest Stock Price

The lowest stock price is the minimum value a stock hits within the same timeframe. This low indicates periods of market pessimism or adverse news, where investor sentiment is notably weak. It highlights the lowest level of demand and confidence in the stock during that time (Madura, 2020).

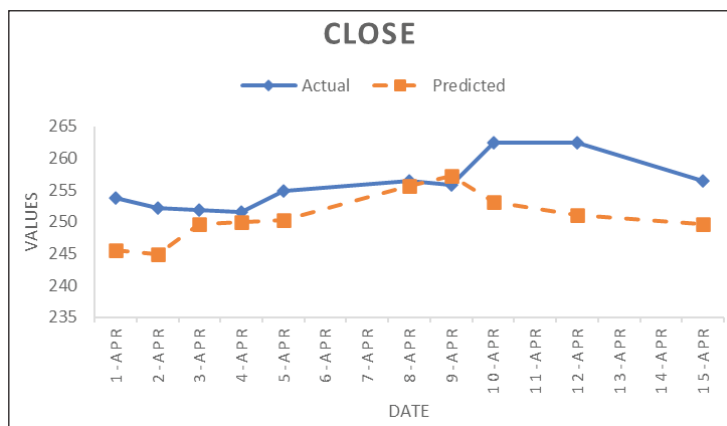
Figure 3: Comparison of Actual and Predicted values of Lowest Stock Price of the day



The forecasts demonstrate reliable predictive accuracy, often aligning closely with actual values. Notably, on days with actual values of 247.45 and 247.75, the predicted values of 247.67 and 247.99 showcase exceptional accuracy. Variations between projected and actual values remain tightly constrained, though larger discrepancies—up to 5 units—occur on days with higher actual values, such as 255.95 and 258. Despite these larger gaps, the forecasting method consistently tracks actual data well, affirming its robustness as a predictive tool.

4.2 Closing Stock Price

The closing stock price is the final price at which a stock trades during a regular trading session. It serves as a benchmark for performance and is influenced by the day’s trading activity, economic news, and investor sentiment (Madura, 2020).

Figure 2: Comparison of Actual and Predicted values of Closing Stock Price

The BHEL stock price forecasts show a commendable degree of accuracy, with projections closely matching actual values on several days. For instance, on days with actual prices of 256.45 and 255.75, the forecasts were 255.73 and 257.21, respectively, demonstrating the model's effectiveness in these cases. However, some notable discrepancies emerge at higher actual values, such as 262.5, where predicted values were lower (e.g., 253.18 and 251.11). This trend suggests that, while the model performs well within a certain range, adjustments may be needed to improve accuracy at higher data points.

5. Conclusion

The stock market, a critical component of the global economy, facilitates buying and selling of equity shares through brokers, with investors targeting long-term growth and traders focusing on short-term gains. In India, major exchanges like the BSE and NSE handle most trading activities. Understanding market dynamics, such as bull and bear trends, is essential for informed decision-making.

Profit maximization, strongly influenced by a company's performance, relies on strategic timing and selection of high-earning companies. Statistical models like Geometric Brownian Motion (GBM) are valuable in forecasting stock prices and trends,

offering insights for strategic trading. This study used GBM to forecast stock prices from July 14, 2023, to March 31, 2024, with results showing high accuracy, particularly for opening, high, and low prices within a range of -3.5 to +3.5 units. Although the model showed limitations at higher price points, refinement could enhance its accuracy, making it a robust tool for financial forecasting.

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Sanatan Economics: A Timeless Alternative to Capitalism and Socialism for Sustainable and Inclusive Prosperity

Biraj Dey* & Avijit Debnath**

Abstract

The economic strategies employed by the United States, Russia, and China, which focused on leveraging women as contributors to production during their reproductive years and enforcing the one-child policy, have resulted in detrimental long-term economic consequences. While China has removed the one-child policy, the effects will become apparent by 2030, when men will struggle to find marriageable women. The U.S. increasingly relies on immigrant labor to sustain production. These models have focused on material and machine-based factors of production, undermining the value of labor. In contrast, Sanatan Economics emphasizes the enduring role of human labor, family, and ethical principles for infinite prosperity. It integrates agriculture, cattle rearing, and dharmic cultural practices, creating a sustainable economic cycle through festivals, tourism, and community engagement. Reviving this ancient economic model, rooted in holistic and inclusive growth, offers a path to global economic stability, advocating a balance between humanity, nature, and spiritual well-being. The failure of conventional economic models calls for a return to the timeless wisdom of Sanatan Dharma.

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Keywords: *Sanatan Economics, Cultural Economics, Sustainable Development, Holistic Growth.*

Introduction

The economic strategies in the United States and Russia that leveraged women as contributors to production during their reproductive years were driven by policies aimed at boosting labor force participation and addressing demographic challenges such as aging populations. In the U.S., women's labor force participation rose significantly, from 33% in 1950 to nearly 60% by 2020, (U.S. Bureau of Labor Statistics, 2020) driven by policies like the Equal Pay Act and Title IX, though societal expectations often burdened women with balancing professional and reproductive roles. Despite short-term economic growth, the U.S. faced long-term sustainability challenges, including declining fertility rates and rising reliance on immigrant labor. Similarly, during the Soviet era, Russia incorporated women into the workforce, achieving over 50% female participation by the 1980s, but the focus on labor led to neglect of work-life balance and fertility issues. After the collapse of the Soviet Union, Russia faced demographic decline, implementing pro-natalist policies like the "Maternity Capital" program, yet fertility rates remained below replacement levels. Both countries experienced short-term economic benefits from female labor force participation but faced long-term economic instability, driven by low fertility rates, aging populations, and the growing need for immigration to sustain workforce numbers and China's one-child policy in past years have had detrimental effects on their long-term economic sustainability. In recent years, China has shifted away from its decades-long one-child policy, recognizing the demographic challenges it created, including an aging population, gender imbalances, and a shrinking labor force. The policy, which was implemented in 1979 to control population growth, led to significant social consequences, particularly a skewed sex ratio due to a cultural preference for male children. Despite the government's reversal of the one-child policy in 2015, transitioning to a two-child policy and later a three-child policy in an attempt to boost the fertility rate, the effects of these policies are slow to materialize. By 2030, the repercussions of this demographic imbalance will likely become starkly evident. Due to the decades of gender selection and cultural preferences, there will be a significant shortage of women in the marriage market. This demographic skew, combined with a low birth rate, means that many men will struggle to find women to marry, leading to an increasing number of "bare branches" men who remain

unmarried and are excluded from family structures. The gender imbalance, projected to be in the tens of millions, is expected to result in greater social instability, mental health challenges, and potential conflicts within the population.

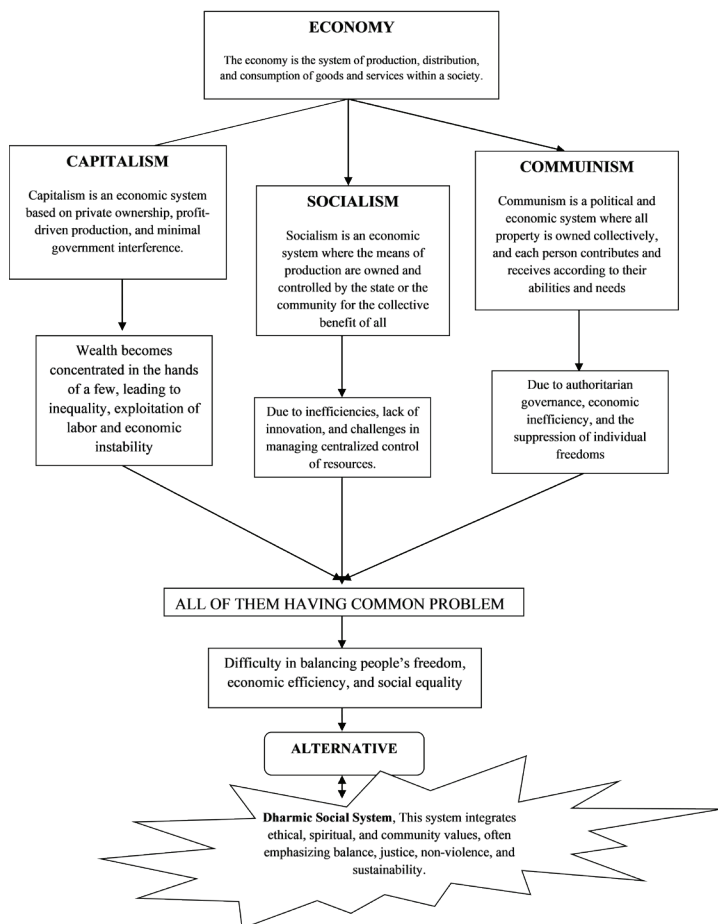
The trickle-down effects of the one-child policy are expected to intensify by 2030. With fewer young people entering the workforce and an aging population, China will face a shrinking labor force at a time when its economy increasingly requires a young, active working population to sustain growth. This demographic shift, along with the rising number of older individuals who will require healthcare and social support, places significant strain on China's economy. In response, the country may face challenges in sustaining economic productivity and maintaining its global economic standing. While the policy reversal may have long-term positive effects on fertility and gender balance, these changes will take decades to have a meaningful impact on the population structure, and the short-term consequences will likely persist until at least 2030 and beyond. Additionally, the economic models followed by many nations, including China, have predominantly focused on material and machine factors of production, where physical capital, technological advancements, and raw materials are prioritized over human capital and labor rights. In this context, labor was often treated as a mere input, reduced to a commodity whose value was defined largely by its cost-effectiveness rather than its intrinsic potential or contribution to innovation and societal well-being. This approach has been particularly evident in China's export-led growth strategy over the past few decades. China's rapid industrialization since the 1980s, driven by its integration into the global economy and its accession to the World Trade Organization (WTO) in 2001, has resulted in the country becoming the "world's factory." The focus on mass production and low-cost manufacturing allowed China to dominate global markets with cheap goods, especially in sectors such as textiles, electronics, and consumer products. This model was successful in generating significant short-term GDP growth, transforming China into the second-largest economy in the world by 2010. However, the reliance on export-led growth, combined with low labor costs, led to a situation where labor became undervalued. Workers, especially in manufacturing hubs like Guangdong and Zhejiang, were paid low wages while being pushed to work long hours under often poor conditions. This model primarily benefitted large corporations and governments by lowering production costs and ensuring China's competitiveness in global markets, particularly in Europe and North America. Labor, in this

equation, was viewed not as a driver of innovation or economic sustainability, but as a “cheap device” used to meet the demand of European and global markets for inexpensive goods. This strategy, while effective in the short term, has had long-term implications. Over the last decade, China has faced rising labor costs due to a shrinking working-age population, a result of the long-term consequences of its one-child policy. Moreover, the rapid pace of industrialization led to environmental degradation, worker exploitation, and a widening wealth gap, where the benefits of economic growth were concentrated in urban centers and large corporations, while many workers remained in poverty or precarious conditions. The export-led growth model also created an over-reliance on external markets, especially Europe. As European economies face stagnation or decline, demand for low-cost Chinese products began to slow. The shift toward automation and artificial intelligence in Europe and other regions further eroded the demand for cheap Chinese labor. While China has begun to shift towards more consumer-driven growth and technological innovation, the labor market still struggles with underemployment and the consequences of a production-based economy that undervalued human capital. Ultimately, the focus on material and machine-based factors of production, rather than a more balanced approach that equally values labor and innovation, has resulted in an economic model where the cost of human labor was minimized in favor of maximizing productivity and profitability for global markets. This approach may have worked in the short term, but as China enters a new phase of economic development, it will need to address these imbalances valuing labor more, ensuring fair wages and conditions, and shifting toward sustainable and innovative production methods that benefit both the economy and its people.

But it is Sanatan Economics offers a fundamentally different approach to economic systems by focusing on the long-term sustainability of human life, family, and community, rather than merely emphasizing material and machine-based factors of production. Rooted in the principles of Sanatan Dharma, this economic model views man (human labor, values, and wisdom) and money (resources, wealth, and their ethical management) as integral, infinite forces of production. Unlike modern economic systems that often prioritize short-term growth and consumption, Sanatan Economics emphasizes the cyclical nature of life, where resources, wealth, and labor flow in an enduring loop across generations, with each family acting as a unit of savings and wealth preservation. In this model, the concept of family is central not just as a social unit but also as an economic one, where resources

are passed down through generations, ensuring a sustainable transfer of wealth and knowledge. This perpetual cycle nurtures not only economic growth but also social stability and well-being, as families work together to maintain and enhance their collective resources, whether material or intellectual. The family unit, in this context, functions as both a generator and conserver of wealth, promoting intergenerational prosperity through savings, investments, and the transfer of knowledge.

Figure: Conceptual Framework



Sanatan Economics also emphasizes the interconnectedness of agriculture, cattle rearing, and Mandirs (temples) in creating a balanced and harmonious economy. Agriculture, the backbone of this system, is not merely seen as a means of production but as a holistic practice that respects the land, the environment, and the cycle of nature. Cattle rearing play a similarly essential role, not only for its direct economic benefits through milk, labor, and manure but also for its ecological significance, promoting sustainable farming practices and nurturing biodiversity. Mandirs, as spiritual centers, are also considered crucial in this economic model, not just for their religious and cultural importance but also for their role in fostering community engagement, creating a sense of collective responsibility, and supporting charitable activities. Through festivals and community gatherings, resources circulate within society, ensuring that wealth flows not just upwards but also reaches the grassroots level, contributing to the economic and spiritual well-being of all. From an economic perspective, Sanatan Economics offers immense benefits by promoting sustainability, equity, and long-term prosperity. Its focus on preserving natural resources, fostering community cooperation, and maintaining an ethical balance between material and spiritual pursuits creates a self-sustaining economic ecosystem. This system also addresses environmental concerns by aligning human economic activities with the rhythms of nature, ensuring that production does not come at the expense of ecological balance. The role of mandirs and festivals in this model further emphasizes the social and cultural dimensions of economic activity, where prosperity is not solely defined by material accumulation but by the collective well-being of society. In contrast to modern economic models that focus on short-term growth and external market dependencies, Sanatan Economics envisions an enduring cycle of wealth, labor, and spiritual fulfillment. By integrating the wisdom of ancient traditions with contemporary economic needs, it proposes a path towards a more sustainable, equitable, and harmonious world economy that can endure for infinity.

The cycle of money circulation in Sanatan Economics is deeply intertwined with the cultural, religious, and social fabric of society. Central to this cycle are the festivals, such as “Baro Mase Tero Puja,” tourism, and other cultural activities aligned with

dharmic traditions, which play a pivotal role in stimulating economic activity while preserving cultural identity. In India, these festivals are not just religious observances; they are also vital economic events that generate substantial flows of wealth across various sectors. The celebration of festivals like “Baro Mase Tero Puja” (the 13 festivals of the year) brings together communities, driving demand for goods and services, from food and clothing to decorations, transport, and hospitality. These festivals create a rhythmic pulse of economic activity, ensuring that wealth circulates within local economies and fosters a sense of collective prosperity. Moreover, tourism is significantly driven by cultural and religious practices. Temples, pilgrimages, and sacred festivals attract millions of visitors annually, both from within India and abroad. This tourism not only generates revenue for local businesses, hotels, and transportation providers but also strengthens the connection between cultural traditions and economic development. The economic benefits extend beyond immediate financial transactions, creating long-term cultural ties that support sustainable growth. Festivals also provide a platform for artisans, performers, and small businesses to thrive, as they cater to the increased demand during these celebratory times. The concept of self-governance, which was a hallmark of the ancient Bhartiya Upmahadip (Indian subcontinent), was inherently integrated into the cycles of cultural events. The policies of governance in ancient India were often shaped and implemented through cultural and religious frameworks. Local communities would come together during festivals, and through communal rituals and gatherings, the distribution of resources, wealth, and welfare was naturally facilitated. These events were not only occasions for spiritual engagement but also moments for the community to discuss, decide, and implement social and economic policies in a decentralized manner. The principles of dharma (righteousness) and seva (service) guided these policies, ensuring they were in harmony with nature and the well-being of society. The economic model based on cultural events provided a sustainable form of governance, where wealth was not only accumulated but also distributed equitably through the active participation of all members of society. The spiritual and economic aspects of life were not separate but deeply interconnected, fostering a society where prosperity and spiritual growth

were seen as inseparable. The seamless integration of cultural traditions and economic policies through events like festivals led to a system of self-governance that allowed the community to thrive collectively, passing down wealth, knowledge, and ethical values to future generations. This model of governance, rooted in dharmic traditions, offered a unique form of economic sustainability that was far more inclusive and resilient than many modern systems that focus solely on material growth.

This unique approach involved channeling resources directly to the lower strata of society in a celebratory manner, coinciding with the monthly occurrence of various festivals. This ensured a regular and festive infusion of funds, fostering community engagement and economic upliftment. Now, it is incumbent upon the people of India to guide the world back to the glorious path of ancient wisdom by rekindling passion for the Sanatan economic model. Drawing inspiration from the timeless principles of Sanatan Dharma, Indians must embrace a holistic approach that harmonizes economic activities with ethical and sustainable practices. Through a revival of traditional values and a commitment to inclusive growth, India can serve as a beacon for a global resurgence rooted in the enduring wisdom of its ancient heritage. This resurgence envisions not only economic prosperity but also a profound connection between humanity, nature, and spiritual well-being, echoing the timeless ideals of the Sanatan Economic Model. The Adam Smith and Karl-Marx of the world have clearly failed.

Conclusion

Sanatan Economics presents a holistic and timeless approach to economic systems, offering a profound alternative to both capitalism and socialism. Unlike these modern economic frameworks, which often focus on short-term growth and material accumulation, Sanatan Economics integrates the well-being of humanity, sustainability, and ethical values into the core of economic activity. By emphasizing the role of human labor, family structures, and the continuous cycle of wealth through generations, this model prioritizes long-term prosperity over mere financial gains. It recognizes the interconnectedness of

economic, spiritual, and environmental well-being, fostering a balance between material progress and ethical responsibility.

The key tenets of Sanatan Economics centered on the cyclical flow of wealth, community engagement, and the integration of cultural and spiritual practices offer a sustainable path for societies to thrive. Festivals, agriculture, cattle rearing, and temples play not just a cultural role but an economic one, ensuring that wealth circulates within local communities while fostering a deep connection between people, nature, and spirituality. This model inherently supports social equity, environmental sustainability, and the well-being of future generations, positioning itself as a more enduring and inclusive economic framework.

In contrast to the capitalist focus on individual wealth accumulation and the socialist emphasis on centralized control, Sanatan Economics presents a decentralized, community-oriented model that is in harmony with nature and the values of dharma (righteousness). Through the celebration of cultural traditions and the active participation of families, this approach ensures that prosperity is shared and distributed equitably, allowing for a self-sustaining cycle of growth. As the world grapples with the limitations of current economic systems, Sanatan Economics offers a profound opportunity to reconnect with ancient wisdom that values people over profit and sustainability over exploitation. By embracing this model, societies can foster economic systems that not only ensure material prosperity but also promote spiritual fulfillment, environmental stewardship, and social harmony. In the face of growing challenges such as environmental degradation, inequality, and societal fragmentation, the principles of Sanatan Economics stand as a beacon of hope showing that the path to true, lasting prosperity lies not in the accumulation of wealth but in the collective well-being of humanity, guided by timeless values and interconnectedness. Through the revival and adaptation of these principles, nations, and ultimately the world, can embark on a journey toward a more sustainable, harmonious, and prosperous future for all.

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Evaluating the Impact of ONGC's CSR on Socio-Economic Development in Assam: A Doctrinal Analysis

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Abstract

In India's fast-growing economy, which is centred on sustainable development, Corporate Social Responsibility (CSR) has emerged as a crucial instrument for fostering inclusive growth and equitable development. Oil and Natural Gas Corporation (ONGC), India's largest oil and gas producer, has started a number of CSR initiatives to help the community and address societal problems. This chapter provides a thorough examination of ONGC's CSR programs that support equitable development and inclusive growth in Assam. To assess the overall impact of CSR initiatives on several socioeconomic variables, the researcher has employed doctrinal research. The findings indicate that the company's corporate social responsibility (CSR) approach is in line with the Sustainable Development Goals (SDGs) and has helped achieve sustainable development goals in the regions where the organisation operates. As a result of these initiatives, marginalised groups have been more actively involved in social and economic development, improving access to healthcare, education, and sanitation. Additionally, they have

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more opportunities for a living. The need of community collaboration and involvement in ensuring the effectiveness and sustainability of CSR initiatives is also emphasised in the chapter.

Keywords: ONGC, Corporate Social Responsibility (CSR), Sustainable Development Goals (SDGs), Marginalised Communities, Equitable Development.

Introduction

The biggest state-owned oil production and exploration business in India is Oil and Natural Gas Corporation Limited (ONGC). It has been essential to India's energy security since its founding in 1956. With the inspiring guidance of Pandit Jawahar Lal Nehru, ONGC was established. When the Oil and Gas division of the Geological Survey of India was established in 1955, Pandit Nehru placed his trust in Shri Keshav Dev Malviya, who laid the groundwork for the ONGC. It was transformed into an Oil and Natural Gas Directorate a few months later. On August 14, 1956, the Directorate was transformed into a Commission and given the name Oil & Natural Gas Commission. "India had not only established its own resources for oil exploration and exploitation, but also established a well-functioning oil commission that employed numerous talented young individuals who had received training and were producing quality work," Pandit Jawaharlal Nehru, the country's first prime minister, stated to Lord Mountbatten in 1959 on ONGC. After becoming a corporation in 1994, the Oil and Natural Gas Commission was later named one of India's Navratnas in 1997. Later on, it was granted the Maharatna distinction in 2010. ONGC has accomplished a great deal in its 60 years of remarkable service to help India achieve its energy goals (ONGC -Our Growth Story - En - ongcindia.com, n.d.). The story of ONGC's journey over the years is one of unwavering belief, bravery, and dedication. ONGC's exceptional endeavours have successfully transformed previously unexplored regions into newly discovered hydrocarbon-rich regions. After starting off small, ONGC is now one of the world's leading exploration and production (E&P) businesses. As part of its liberalised economic policy, the Indian government took steps in July 1991 to partially disinvest its equity in Public Sector Undertakings (PSUs), deregulate and de-license key industries (particularly the petroleum sector), and other initiatives.

ONGC was reorganized in February 1994 under the Company's Act, 1956, as a result, becoming a limited company. Through competitive bidding, the government divested 2% of the shares of the Oil & Natural Gas Corporation Limited after its 1993 rebranding from the Oil & Natural Gas Commission. Then, by giving its workers shares, ONGC increased its ownership by an additional 2%. In March 1999, ONGC, the sole gas marketing business in India, and the downstream behemoth Indian Oil Corporation (IOC) reached an agreement to engage in cross-holding of each other's shares. This cleared the path for energy value chain participants to form lasting strategic agreements that would benefit their respective domestic and international businesses. ONGC ventured into the downstream industry in 2002–03, following the acquisition of MRPL from the A V Birla Group. A wholly owned subsidiary of ONGC, ONGC Videsh Ltd. (OVL), has also expanded into international markets. ONGC has made significant investments in Vietnam, Sakhalin, Columbia, Venezuela, Sudan, and other countries. Its first revenue from overseas hydrocarbon ventures was generated from its investment in Vietnam. To the tune of over 75% of India's total domestic production, Maharatna ONGC stands as the country's biggest crude oil and natural gas Company (ONGC - History - En - ongcindia.com, n.d.-b). More than just breaking records for deep-water drilling in the Krishna Godavari Basin and discovering uncharted energy territories, ONGC's energy quest has broader implications. Regardless of the worldwide drop in crude prices, it has aggressively and carefully reversed the production trend in offshore by making substantial investment decisions. In order to ensure a steady supply of energy, they are currently exploring plays further offshore. Our adventure has earned us a spot on Fortune's list of "World's Most Admired Companies."

Assam & Assam Arakan Basin

The Assam and Assam Arakan Basin E&P operations rely heavily on the work of the Basin Manager's office in Jorhat. As an integrated whole, the Basin Manager's Office (BMO) aids the Basin Manager in carrying out executive and administrative duties by giving practical assistance and disseminating information gathered from different sources, both internal and external. This, in turn, helps Basin with decision-making. Moreover, BMO plays a crucial role

in informing inter- and intra-basin authorities on E&P operations and the Basin's performance. Assisting the Basin Manager with technical, executive, and administrative matters is one of the main goals of the basin. Working within the context of ONGC's corporate goals and identifying and meeting statutory requirements are the primary functions of the Basin Manager. Make a contribution to the Basin's overall development. Consistent with the goals and policies of the company, keep and improve records, systems, and procedures. Keep official records up-to-date and accessible so that people can receive the information they need. Assist with the creation and delivery of associated documents, including reports, proposals, budgets, and the like. Establish and nurture connections with partners and stakeholders. Important decision-making materials were prepared.

Primary undertakings Surveillance of the daily operations within the Basin. Assisting the Basin Manager with data monitoring, analysis, and evaluation. Giving the Basin Manager timely technical and administrative feedback to help with day-to-day operations and decision-making. Evaluating proposals and files and making sure they are cleared and moved quickly based on their priority and value. Gathering and submitting the Annual Exploration Program. Preparation and submission of a Performance Contract (PC) between the Basin Manager and the Director (E), as well as reporting on the Basin's performance on a quarterly or semi-annual basis. Interaction between the Basin Manager and the Chief of Services to draft and submit SLAs. Create internal service level agreements and evaluate their effects. Performance of various sections is monitored through Service Level Agreements (SLAs) between the Basin Manager and L-II/L-III executives. Issuing memoranda of understanding (MoMs) and coordinating meetings, such as the Virtual Corporate Committee (VCC), the Progress Review Meeting (PRM), and other unplanned gatherings. Creating and submitting a wide range of reports (weekly, monthly, quarterly, semi-annually, annually, etc.) Cooperation across disciplines, both within and outside of the Basin, to ensure the free flow of data and information. Cooperation between various internal and external entities facilitates the efficient operation of Basin initiatives.

AAFB Exploratory Asset Silchar Basin

Tectonic evolution has occurred in two important phases in the shelf-slope-basinal system that is the Assam-Arakan Basin. The majority of the oil fields are located in the shelf portion of the basin, but the basinal portion offers moderate to substantial hydrocarbon potential. The Barail Group and the Kopili Formation are the main source rocks. The Tipam Sandstone, Barail Formation, and Lakadong Formation are among the principal reservoir rocks, which are sandstones of different ages. The Barail Coal-Shale Unit, the Girujan Clay, and the Kopili Formation are the main cap rocks. About 27% of the basin's estimated 3180 MMt of resource base has been transformed as in-place geological reserves (Assam-Arakan Basin, n.d.). Northeastern India is home to the AAFB Exploratory Asset Silchar Basin. The extent of this sedimentary basin is roughly 10,000 square kilometres. The Patkai Range borders the basin on the east, the Naga Hills on the south, the Himalayas on the north, and the Brahmaputra River on the west. In 1959, the first oil was discovered. Since then, the basin has seen the discovery of several oil and gas reserves. The Rudrasagar Field, Digboi Field, and Moran Field are the three most significant oil fields.

The potential for hydrocarbons in the AAFB Exploration Asset Silchar Basin is substantial. About 3 billion barrels of oil and gas are thought to be recoverable. Additionally, the basin is a good location for the development of unconventional resources like gas and shale oil. The Silchar Basin is a difficult and intricate exploration region. The basin's geology is complicated, and exploration carries a number of geological dangers. But there is also a lot of exploration potential in the basin. There is a lot of uncharted territory in the basin, and fresh discoveries could be made. India's energy security plan heavily relies upon the AAFB Basin. India's increasing energy needs will be met in part by the development of the hydrocarbon resources in the basin. In addition to being a difficult and complex exploration environment, it presents other exploration options. There is a lot of uncharted territory in the basin, and fresh discoveries could be made. India's energy security plan heavily relies on this Basin. India's increasing energy needs will be met in part by the development of the hydrocarbon resources in the basin.

Corporate Social Responsibility (CSR) and Sustainable Development

In the context of sustainable development, corporate social responsibility, or CSR, refers to a business's commitment to conducting its operations in a way that balances its financial goals with the welfare of the environment and society. This dedication goes beyond merely following the law; it incorporates sustainable practices into the foundation of a business's strategy to address the effects of its activities on the environment, society, and economy. Fundamentally, CSR is based on three principles: sustainability, which emphasises current needs without endangering the ability of future generations to meet their own; responsibility, which recognises a company's accountability to all stakeholders, including customers, suppliers, employees, communities, and the environment; and transparency and accountability, which demonstrates openness regarding their initiatives and their impact (Ashurov et al., 2024). CSR initiatives usually focus on three main areas: Economic Responsibility, which ensures the sustainability of the economy through ethical conduct, innovation, and sustainable growth; Social Responsibility, which supports community development, promotes fair labour practices, respects human rights, and fosters diversity and inclusion; and Environmental Responsibility, which focuses on minimising the ecological impact through optimal resource utilisation, pollution reduction, and conservation. There are several advantages to putting strong CSR initiatives into practice. Businesses frequently see an improvement in their reputation, which boosts consumer loyalty and creates a favourable brand image. Additionally, CSR promotes better stakeholder relations by fostering cooperation and trust. Additionally, a focus on sustainability can lead to increased innovation in processes, goods, and services. In the end, CSR helps create long-term value by reducing risks, increasing productivity, and building a sustainable company (Stobierski, 2021). Most importantly, CSR is essential to reaching the Sustainable Development Goals (SDGs) of the UN. By coordinating corporate social responsibility (CSR) efforts with the Sustainable Development Goals (SDGs), companies help address global issues such as poverty, inequality, climate change, and environmental degradation. Finally, a comprehensive corporate

strategy that acknowledges the interdependence of businesses with society and the environment is required for CSR in sustainable development. Businesses that include sustainability into their fundamental strategy not only build long-term value for themselves, but they also actively help ensure that everyone has a more sustainable future (SBN Software, 2024).

Making a Real Impact: ONGC's CSR Initiatives

A well-organised framework for ONGC's dedication to ethical business practices and constructive social and environmental effects is provided by its Corporate Social Responsibility (CSR) and Sustainability Policy. The policy's foundation is a vision of sustainable development that strikes a balance between social justice, environmental responsibility, and economic growth. Its goal is to continuously improve performance in these areas while involving stakeholders. The main goals of ONGC's strategy are to reduce its negative effects on the environment and enhance community well-being, especially in operational areas (CSR and Sustainability Policy, 2021). Key societal and environmental issues are addressed by ONGC's CSR programs, which concentrate on environmental sustainability (reducing operational impact, advancing green energy, and bolstering marine and coastal ecology) and community development (enhancing access to drinking water, healthcare, education, and nutrition, as well as upliftment of coastal communities). The organisation has a methodical approach to execution and governance. The selection, oversight, and implementation of projects are managed by the Board of Directors and a specialised CSR Committee. Specific initiatives, procedures, funding, and monitoring are covered in depth in annual action plans. Projects are carried out by registered agencies and comply with Schedule VII of the Companies Act of 2013. At least 2% of ONGC's average net income over the last three fiscal years are devoted to CSR initiatives. Unused money is either put into designated coffers or put towards upcoming projects. The Finance Director ensures openness and certifies the use of funds. Project surplus is put back into CSR initiatives. Field visits, beneficiary input, external assessments, real-time digital tracking, and required impact assessments for projects above 1 crore are all components of a strong monitoring and evaluation framework. In addition to producing yearly CSR and Sustainability Reports and

making disclosures as required by law, ONGC keeps thorough records of all its CSR activities. The business complies with the Companies Act of 2013 and its implementing regulations. A Build & Transfer process guarantees the sustainability of generated assets, administrative overheads are limited, and projects are carried out by registered organisations.

To sum up, ONGC's CSR & Sustainability Policy seeks to achieve long-term social, environmental, and economic impact while coordinating with the SDGs and national agendas. In order to achieve inclusive growth and a sustainable future, ONGC has made environmental stewardship, community welfare, and ethical business practices a priority by incorporating CSR into its fundamental strategy. Through the implementation of multiple programs aimed at uplifting communities and advancing sustainable development, the Oil and Natural Gas Corporation Limited (ONGC) has shown an immense dedication to Corporate Social Responsibility (CSR) in Assam. In order to meet urgent requirements and advance the region as a whole, ONGC's CSR programs in the state concentrate on a number of important sectors. In Assam, ONGC's CSR initiatives are centred on healthcare and education. The business has invested heavily in improving educational facilities, aiding educational institutions, giving scholarships to students from disadvantaged backgrounds, and financing skill-building initiatives. Additionally, ONGC has strengthened healthcare facilities in Assam, especially in rural regions where access to healthcare is frequently limited, by implementing free medical camps, better hospital infrastructure, and mobile health units. In keeping with the government's emphasis on these areas, ONGC has also taken an active position in the creation of Assamese aspirational districts. In order to guarantee sustained success in these areas, specific initiatives have been put into place to enhance livelihoods and basic services, with an emphasis on healthcare, education, and skill development.

Driving Sustainable Development and Empowering Communities

In FY 2021–2022, M/s Deloitte Touche Tohmatsu India LLP, an impartial agency, was hired to assess the social impact produced by 11 significant ONGC-implemented CSR projects.

These initiatives complied with the framework requirements set forth by the Development Assistance Committee (DAC) of the Organisation for Economic Cooperation and Development (OECD). Assam, Gujarat, Uttarakhand, Maharashtra, Jammu & Kashmir, Tamil Nadu, Himachal Pradesh, Goa, and Andhra Pradesh were among the beneficiaries of the projects evaluated, which were implemented in theme areas like healthcare, skill development, education, water, sanitation, hygiene, and the environment. Utilising a mixed methodology approach and selective sampling, the independent agency evaluated the impact on ONGC-supported beneficiaries in FY 2021–2022 (CSR Initiatives in India | ONGC Major CSR Projects by Oil & Gas Companies - En). To guarantee a thorough investigation, the sample was drawn using statistical sampling techniques. In accordance with the project execution model, the results-based framework was used to identify task-specific inputs, processes, outputs, and outcomes/impact. This was done after consulting with implementing partners and reviewing the material that was available. In order to gather both qualitative and quantitative data, purposeful sampling was employed, along with specially designed instruments like beneficiary encounters, document and report reviews, and key stakeholder interviews. Semi-structured sample surveys, in-depth key informant interviews, and targeted group discussions with stakeholders and beneficiaries were among the principal data collection techniques employed.

The Siu Ka Pha Multispecialty Hospital in Sivasagar (Phase I), Assam, was one of the significant CSR initiatives evaluated. For severely ill patients in Sivasagar and surrounding areas like Jorhat, Dibrugarh, and Golaghat, as well as even extending to Nagaland, Arunachal Pradesh, and Mizoram, the project has greatly increased access to multispecialty care, including therapy, diagnostics, and intensive care (CSR Annual Reports - En - Ongcindia.com, 2024). As of February 2024, the hospital had recorded 102,742 OPD registrations, 11,327 IPD admissions, 3,746 operations, and 25,772 dialysis procedures and has served a significant number of patients since the beginning of Phase I in April 2019. With over 5,800 dialysis patients treated in FY 2023, empanelment under Ayushman Bharat-PMJAY has greatly boosted the number of dialysis patients. Of these, 54% were PMJAY

recipients, 36% were ONGC patients, and 9% were cash patients. Service delivery has been further reinforced by the participation of visiting nephrologists and internal medicine specialists. With 97% of patients questioned expressing satisfaction with staff behaviour and service quality, the hospital's healthcare services are widely trusted due to their affordability and quality. Additionally, 66% of the patients requested a mix of treatment and curative medications, such as tests, diagnostics, and operations, and 67% of the patients were from rural and peri-urban areas. Financial accessibility for individuals in need has improved due to partnerships with eight private insurance providers, corporate empanelment, and connections to insurance programs like Ayushman Bharat-PMJAY and ESIC. The enhancement of community awareness campaigns has been another significant accomplishment. From 1,983 awareness sessions in 2022 to 4,019 sessions in 2023, there was a 130% increase in comparison to the prior year. Increased patient traffic has been brought about by partnerships with City Clinic and Sepon Clinic, where physicians regularly treat 10–20 patients per visit, 1-2 sessions per week, for primary care and diagnostic services.

ONGC was essential in helping the communities of Assam during the COVID-19 outbreak. The organisation provided those in need with sanitisation kits, food packs, and necessary medical supplies. Additionally, ONGC organised immunisation drives, gave PPE kits to frontline staff, and made sure that medical facilities around the area would continue to get support. To help Assam and the country combat the pandemic, ONGC made a donation to the PM CARES Fund in addition to its local initiatives. According to Reach India Trust's independent impact evaluation, the hospital has effectively addressed the problem of bed shortages while offering affordable care at 70% of the going rate. Since the hospital's founding, 35,850 people have been treated, including 7,369 dialysis patients. This has greatly improved access to healthcare in the area because dialysis was not previously offered in Sivasagar. In 2020, during the COVID-19 outbreak, 100 patients were treated in a 30-day emergency COVID ward (CSR Annual Reports - En - Ongcindia.com, 2022). Feedback from various patient categories showed that 76% of respondents thought medical facilities were good or excellent, 82% had very positive

experiences with doctor visits, and 90% thought overall treatment was good and inexpensive. With 96% of workers being local hires, employment creation has also been noteworthy, guaranteeing regional economic advantages.

As part of its CSR initiatives in Assam, ONGC also supports the Pradhan Mantri Ujjwala Yojana (PMUY), which gives BPL families access to cleaner cooking fuel. In collaboration with local healthcare organisations, the firm has set up mobile medical units to deliver vital healthcare services to senior citizens living in distant places. In order to promote improved cleanliness and health for kids, ONGC has been working to enhance sanitation in schools throughout Assam under the Swachh Vidyalaya Abhiyan. The organisation has introduced the ONGC Super-30 program in the sphere of education, which helps students become ready for competitive tests. Furthermore, the region's pupils now receive higher-quality education thanks to infrastructure development projects like the creation of RCC buildings for tribal villages, digital classrooms, and school libraries. In Assam, ONGC has also prioritised clean water and sanitation projects. The company has provided funding for the installation of drinking water facilities and communal restrooms at a number of public locations and schools. ONGC's dedication to fostering environmental sustainability in Assam is further demonstrated by the waste management initiatives and the installation of solar lighting (Hussain & Rajkonwar, 2019). Additionally, by giving ration packages and offering financial support for community welfare initiatives, ONGC has helped with disaster relief and efforts to eradicate poverty. Projects to provide jobs and enhance skills have also been put into place to empower young people in the area and increase their prospects for a living.

As part of its CSR efforts, ONGC's Shrikona Unit gave air conditioners to Satindra Mohan Dev Civil Hospital in Silchar in March 2024. The donation was made in partnership with the Rural Development and Social Service Organisation (RDSSO). Important people like Dr. Khaleda Sultan, Additional District Magistrate, and Bipul Gohai, Asset Manager of ONGC Shrikona, were present at the official transfer ceremony, which was held in the hospital's conference hall. ONGC's dedication to improving healthcare facilities in Silchar and creating a more comfortable

atmosphere for patients and medical personnel is demonstrated by the contribution (AC & Equipment Donated to Silchar SM Dev Civil Hospital by ONGC Cachar, 2024). By adding 65 additional ambulances to its fleet in Sivasagar, ONGC improved its emergency response capabilities in Assam in January 2025. These ambulances, which are leased for five years from the Assam State Transport Corporation (ASTC), have all the necessary equipment, including 2.2-litre oxygen tanks, autoloader stretchers, swivelling fans, and folding seats (PTI, 2025). They will be positioned strategically throughout all of ONGC's operational sites, such as production installations, workover rigs, and drilling sites. Additionally, the ONGC Hospital in Sivasagar and the dispensary in Nazira have been assigned two advanced life support ambulances that are equipped with vital life-saving devices, including ventilators and defibrillators. This program demonstrates ONGC's dedication to putting its stakeholders' and employees' safety and well-being first.

The way an economy develops is greatly influenced by corporate social responsibility. CSR and sustainability go hand in hand. CSR is an effort to make people happy by engaging in community-benefitting initiatives. Even though Assam has benefitted much, there is still much more that can be done to help it meet its sustainability goals (Dutta, 2020). In Assam, ONGC has also prioritised clean water and sanitation projects. The company has provided funding for the installation of drinking water facilities and communal restrooms at a number of public locations and schools. ONGC's dedication to environmental sustainability in Assam is further demonstrated by the waste management initiatives and the installation of solar lighting. Additionally, by giving ration packages and offering financial support for community welfare initiatives, ONGC has helped with disaster relief and efforts to eradicate poverty. Projects to provide jobs and enhance skills have also been put into place to empower young people in the area and increase their prospects for a living. ONGC's commitment to promoting sustainable development and raising the standard of living for local populations is demonstrated by these CSR initiatives in Assam.

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7

Public Sector Financial Reporting and the Union Budget

Malay Das* & Prashanta Sharma**

Abstract

Both transparency and accountability together with fiscal discipline receive strong support from the public sector financial reporting system. This chapter examines financial reporting in India the concepts along with regulatory structure and its integration to the Union Budget. The analysis explores four essential groups including the government institutions together with policymakers and citizens alongside investors. It emphasizes primary principles of transparency and accountability and good governance in these systems. The chapter examines how the Union Budget is arranged as well as how financial reporting monitors budget execution and it analyzes problems linked to data precision and political interference and transparency issues. Multiple digital innovations (PFMS, GST, DBT) and accrual-based accounting now exist with specialized budgeting approaches for gender and environmental sustainability and these developments receive research through global benchmark analysis. The last part of the research outlines future projections along with specific policy suggestions and outlines a direction for strengthening Indian public financial reporting systems. The fiscal management system of India will improve for effective governance

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alongside economic stability through the implementation of digital transformation together with institutional oversight and participatory budgeting.

Keywords: *Public Sector Financial Reporting, Union Budget, Fiscal Transparency, Accrual Accounting, Budgetary Reforms.*

Introduction

An economic framework needs transparent financial reporting of the public sector to achieve effective governance along with clear accountability for all operations. The Indian Union Budget functions as the vital foundation for public financial management through its presentation of governmental fiscal activities and economic plans for the following financial period. The extensive size of public funding requires proper financial reporting as an essential measure for building trust between the general public along with investors and government officials.

The public sector requires structured processes to document and arrange financial documents which originate from government activities. Public resources remain effective through financial reporting since it enables tracking the budget allocations along with revenue collection and expenditure patterns. Public financial reporting serves purposes beyond compliance because it builds trust among constituent groups as well as supports economic steady operation and facilitates better choices.

The public sector financial reporting in India exists within defined legal and regulatory systems. The fiscal discipline of India results from the combined effort of constitutional requirements along with the involvement of **Comptroller and Auditor General (CAG)**, **The Public Accounts Committee (PAC)** and the use of **Indian Government Accounting Standards (IGAS)** and other financial reporting standards. **The Ministry of Finance** collaborates with the **Reserve Bank of India (RBI)** and financial institutions to conduct financial oversight through which they ensure public funds remain dedicated to national objectives.

The public sector determines its fiscal status and implements macroeconomic plans through the Union Budget which outlines budgetary allocations along macroeconomic directions. The document illustrates all financial streams such as taxes and non-

tax revenue alongside its distinction between capital and revenue spending. Financial data precision in budget reports directly affects how the economy plans ahead as well as market trust levels and global credit rating systems.

The financial reporting structure in the public sector encounters various implementation challenges throughout India. The delivery of financial disclosures with delay and slow data updates from sources combines with political control and ineffective tracking of expenditure which blocks fiscal accountability. Making the change from manual cash accounting to accrual-based financial reporting systems provides the public sector new ways to enhance transparency but presents specific implementation difficulties.

The Indian government has implemented different reforms toward modernizing financial reporting systems because of the identified industry challenges. The implementation of digital systems including **Public Financial Management System (PFMS)**, **Goods and Services Tax (GST)** and **Direct Benefit Transfers (DBT)** enables better immediate financial monitoring activities. Additionally, the adoption of **Gender Budgeting**, **Green Budgeting**, and Outcome-Based Budgeting has enhanced fiscal planning and performance evaluation.

The chapter investigates public sector financial reporting enhancement possibilities through analyses of cases and international best practices alongside predictions about its future development in India. Emerging technology tools including **artificial intelligence**, **block-chain** and **big data analytics** systems will drive public sector financial reporting into an era of increased transparency as well as operational efficiency and data-based reporting. The development of improved financial reporting methods in the Union Budget stands crucial for reaching better fiscal management as well as sustaining economic development and strengthening governance.

Concept and Importance of Financial Sector Reporting

Definition of public sector financial reporting

The system of recording financial transactions in government entities through standardized classification methods constitutes public sector financial reporting. The established framework

offers public entities a method to present financial transaction data including revenues and expenditures together with assets and liabilities and fiscal policies for transparent public fund management.

Indian public sector financial reporting exists under constitutional mandates together with oversight from the **Comptroller and Auditor General (CAG)** and the **Public Accounts Committee (PAC)**. Furthermore, it follows reporting standards that include **Indian Government Accounting Standards (IGAS)**. Budget implementation monitoring along with fiscal performance assessment and responsible governance promotion are all key functions which this mechanism fulfills.

Role of financial reporting in the public sector:

- **Ensuring Fiscal Transparency and Accountability:** Financial transparency in addition to accountability reduces corruption along with mismanagement through the establishment of clear records covering government revenues and financial obligations.
- **Supporting Budget Formulation and Execution:** The foundation serves as a basis for creating the Union Budget to help the government distribute financial resources effectively and adhere to fiscal discipline.
- **Enhancing Public Trust and Citizen Engagement:** The tracking system enables citizens to follow public money allocation where they can take part actively in public governance processes.
- **Aiding Policymaking and Economic Planning:** Budget-related economic decisions become more accurate through the consistent availability of reliable data for determining taxation methods and establishing subsidies and social welfare schemes.
- **Strengthening Investor Confidence:** Financial stability produced by improved investor confidence supports both domestic and international market investments through credit rating impact and foreign capital influx.

- **Ensuring Regulatory Compliance:** The system helps maintain fiscal discipline by following all legal frameworks as well as auditing standards and financial regulations.
- **Improving Public Sector Efficiency:** The implementation of these strategies aids the government to increase both public sector operational efficiency and financial resource management.

Key Stakeholders in Public Sector Financial Reporting

- **Government:** National government supports fiscal discipline by delivering efficient resource allocation while keeping public finance management transparent.
- **Policymakers:** Budget allocation decisions as well as economic reforms, public welfare programs and taxation guidelines depend on financial reports according to policymakers.
- **Citizens:** Citizens should both check how authorities use public money and force officials to answer for budget actions along with taking part in discussions about policy decisions to optimize public funding utilization.
- **Investors:** Financial institutions evaluate both the stability and credit conditions and economic indicators of organizations because they need this data to make strategic investment choices.

Principles of Transparency, Accountability and Good Governance

Transparency

Through open financial reporting in the public sector all financial material becomes readily available while maintaining both precision and timeliness. Public budgets together with financing details must receive thorough disclosure through simple and transparent communication. The unrestricted availability of financial data allows all stakeholders including citizens alongside investors and policy groups to observe government allocations while evaluating national economic outcomes which create trust among the populace.

Accountability

Public officials along with their institutions must accept responsibility for determining both financial decisions and organizational actions. A strict adherence to financial laws separates ethical governance and auditing standards and forms the core of this principle. The financial accountability of authorities depends on the **Comptroller and Auditor General (CAG)** together with **Public Accounts Committee (PAC)** and independent audits for budget implementation and financial integrity.

Good Governance

Financial reporting under good governance practices requires authorities to handle public funds efficiently through careful management, untainted financial operations and immediate attention to needs. The proper utilization of financial resources functions to distribute funds with equality as well as strategic planning for economic expansion together with social welfare creation and sustainable growth. The implementation of digital financial systems along with global best practice methods together with performance metrics in budgeting helps improve governance through reduced corruption and better operational effectiveness.

Legal and Regulatory Framework Governing Public Sector Financial Reporting in India

The public sector financial information in India falls under a comprehensive set of legal and regulatory directives which establish transparent financial standards. Indian Government's financial statements undergo their preparation, audit and presentation process through guidelines from constitutional provisions and formulated by statutory bodies and financial reporting standards.

Constitutional Provisions Related to Financial Reporting

Public sector financial reporting follows the principles established by the Indian Constitution. Key provisions include:

Article 112 – Annual Financial Statement (Union Budget):

The government must prepare and deliver a yearly statement

regarding projected revenue and expenses during the Union Budget presentation.

Article 266 – Consolidated Fund and Public Account of India: Article 266 demands that in India's Consolidated Fund combined with Public Account, proper accounts should be maintained for all government receipts and outflows.

Article 280 – Finance Commission: The Finance Commission defined in Article 280 gives both the Union and State governments equal access to fair financial distribution.

Article 148-151 – Role of the Comptroller and Auditor General (CAG): Article 148-151 explains that the **Comptroller and Auditor General (CAG)** has the power to audit public financial matters before providing reports to Parliament.

Role of the Comptroller and Auditor General (CAG) and Public Accounts Committee (PAC)

Comptroller and Auditor General (CAG): The government institution defending public finances conducts financial audits of Union and State government money receipts and spending. The organization fulfills financial regulation standards and monitors public spending to find improper financial activities. The organization submits financial audit findings to both State Legislatures and Parliament so they can keep the public properly informed.

Public Accounts Committee (PAC): The Accounts Committee conducts thorough examination of the reports submitted by CAG to confirm public expenses comply with budgeted amounts. It holds government departments accountable for financial mismanagement, inefficiencies, and irregularities. The institution makes recommendations which enhance budgetary control functions. The institutions improve both financial governance and the parliamentary oversight of public funds.

Financial Reporting Standards (IGAS, IFRS Compliance)

Indian Government Accounting Standards (IGAS):

The **Government Accounting Standards Advisory Board** through its issuance of standards establishes financial reporting

requirements which promote consistent and trustworthy government financial documents. The standard-setting regime contains three prominent examples namely **IGAS 1 (Guarantees given by Government)**, **IGAS 2 (Accounting for Grants-in-Aid)** and **IGAS 3 (Loans and Advances by Government)**.

International Financial Reporting Standards (IFRS) Compliance:

Indian public sector uses cash-based accounting in most cases for financial reporting but has started a process to adopt international best practice accrual-based accounting methods. **Indian Accounting Standards (Ind-AS)** compliance following IFRS guidelines receives encouragement from authorities for all state-owned enterprises and financial institutions.

Role of the Ministry of Finance and RBI in Financial Oversight

Ministry of Finance:

The Ministry of Finance creates and delivers the Union Budget that balances fiscal responsibility with resource maximization. Public debt together with fiscal deficit and macroeconomic policies are tracked by the ministry through monitoring activities to preserve economic stability. The ministry establishes rules regarding financial regulation in addition to tax policies and spending limits for all government departments.

Reserve Bank of India (RBI):

The institution regulates government debt levels and public debt operations as well as monetary policy framework. The institution ensures financial security through managing inflation together with interest rates and foreign currency exchange rates. Financial operations and government transactions become clear and transparent due to the oversight systems of this institution.

The Union Budget and Its Role in Public Sector Financial Reporting

The Indian government presents its financial statement annually during the Budget as a complete picture of revenues and spending actions while detailing policy choices for an upcoming year. The public sector financial reporting depends heavily on this important

tool which enables transparency together with accountability and economic planning. The monitoring function of financial reporting allows stakeholders together with policymakers to track budget implementations and measure government spending efficiency through performance evaluation and implementation assessment.

Structure of the Indian Union Budget

The Union Budget contains various important sections which give complete coverage of government financial operations.

Revenue Budget:

Revenue Receipts: Tax revenue from Income Tax, GST and Customs Duty forms part of Revenue Receipts together with non-tax income from PSUs and interest payments.

Revenue Expenditure: Revenue Expenditure includes the government spending needed for employee compensation along with subsidy payments, pension allocations and welfare plan funding since these activities do not result in permanent asset generation.

Capital Budget:

Capital Receipts: Includes borrowings, disinvestments, and loan recoveries.

Capital Expenditure: Involves infrastructure projects, defense procurement, and other asset-creating investments.

Fiscal Deficit: The governmental borrowing requirement emerges from the difference between all government spending and revenue collection. The financial reporting system uses this indicator as a main tool to measure fiscal sustainability levels.

Public Account of India: The public financial statements cover transactions in which government operates as a trustee including Provident Fund together with small savings and reserve funds.

Recording and Reporting of Budgetary Allocations

The government tracks its spending through detailed financial tracking programs which confirm that budgeted funds match official policies. Key processes include:

Classification of Expenditure: All expenditures fall into capital investment sections which are planned expenditures whereas the recurring operational costs fall under non-planned categories.

Ministry-wise and Sectoral Allocations: Each budget allocation flows to education together with healthcare, defense, infrastructure, agriculture and social welfare services where individual reporting takes place for every sector.

Tracking of Expenditure Through Accounting Systems: Government financial transactions exist in cash-based accounting systems although accrual-based accounting methods are gradually adopted to boost financial transparency. The **Controller General of Accounts (CGA)** together with Ministry of Finance maintains expenditure tracking while preparing official financial statements.

Mid-Year and Annual Reports: The evaluation process of budget utilization happens through mid-year expenditure reviews. The **Finance Accounts** together with **Appropriation Accounts** make up annual financial statements which confirm adherence to budgetary requirements.

Role of Financial Reporting in Tracking Budget Performance

Financial reporting enables organizations to measure how well their budgeted funds become operational for policy fulfillment.

Tracking Revenue and Expenditure Trends: Financial reports help determine whether earned revenue meets projection targets and addresses the alignment of budgeted spending.

Monitoring Fiscal Deficit and Debt Sustainability: Financial reports show how both government debt levels relate to financial sustainability along with conformity to fiscal responsibility requirements.

Assessing the Impact of Budgetary Policies: Reports examine budget allocation impacts on national economic growth together with inflation rates and both employment levels and the reduction of poverty numbers.

Auditing and Compliance Monitoring: Through its auditing process, the CAG verifies that public funds get used effectively and by lawful means. Parliamentary committees such as PAC

combined with **Finance Committee** and **Estimates Committee** have authority to conduct financial report review as a part of their oversight duties.

Challenges in Public Sector Financial Reporting

The financial reporting system of the Indian public sector confronts various obstacles which affect the fidelity and clarity as well as operational effectiveness of financial information. The implementation of constitutional guarantees along with regulatory bodies has not solved the problems that stem from unreliable data, unclear budgets and ambiguous accounting standards while being impacted by political pressures.

Issues with Financial Data Accuracy and Timeliness

Delayed Reporting: The prolonged time required for government financial statement reporting and audit release reduces the usefulness of these reports during live decision-making processes.

Data Inconsistencies: Financial projections experience misalignment because of the discrepancies that exist between budget estimates, revised estimates and actual expenditures.

Manual and Fragmented Data Systems: The public sector depends on old-fashioned record-keeping systems that produce inefficiencies together with errors and misreporting.

Lack of standardized reporting across states: Various accounting methods implemented by states prevent the national-level analysis of financial data because of differing reporting practices.

Lack of Transparency in Budget Allocations and Expenditures

Opaque Fund Utilisation: The public cannot properly track spent funds due to insufficient disclosure details found mainly in defense sectors together with subsidies and welfare programs.

Off-Budget Borrowings: Certain governmental funds originate from off-budget sources such as public sector undertakings and special-purpose vehicles that do not appear as reported financial activity.

Inadequate Public Access to Financial Data: The public has limited access to financial data due to budget documents being

published with confusing technical formats and complex professional terminologies.

Challenges in Implementing Accrual-Based Accounting vs. Cash-Based Reporting

Current System (Cash-Based Accounting): Indian government applies cash-based accounting primarily because they document transactions only through actual cash payments and cash receipts. Due to its limitations, this system cannot track pending liabilities together with long-term financial obligations.

Accrual-Based Accounting (Proposed Reform): It measures the financial position of the government by recording payments and receipts upon their occurrence thus offering precise insights into budgetary funds along with non-standard financial commitments and fixed assets assessments.

Implementation Challenges:

- The implementation of this system demands extensive development programs for public servants alongside equipment and curriculum modification for administration staff.
- Public entities need to allocate additional funds for shifting from cash-based methods to accrual-based accounting techniques.
- Departments that worked with traditional accounting systems reacted with opposition.

Political Influences and Fiscal Accountability Gaps

Populist Spending without Fiscal Discipline: The pursuit of popularity through politics results in numerous unplanned funding benefits for subsidy programs and waiver of loans together with social support programs that prove unsustainable.

Election-Year Budget Manipulations: During election years governments attempt to better the budget picture through revenue overestimation or shifting costs away from current periods.

Weak Enforcement of Fiscal Responsibility Laws: There exists weak implementation of financial governance laws through the

Fiscal Responsibility and Budget Management (FRBM) Act because economic shocks lead to deviations from the stated fiscal discipline framework.

Limited Independence of Oversight Institutions: Oversight institutions maintain limited autonomy in financial oversight because their suggested changes lack mandatory implementation authority thus limiting their ability to influence government policies.

Recent Reforms and Innovations in Public Sector Financial Reporting

India has pursued substantial reforms together with innovative changes to boost public sector financial reporting transparency as well as efficiency and accountability in recent times. Indian financial management system has undertaken modernization steps through digital implementation of specialized budget systems as well as transition phases for accrual accounting standards to match advanced international practices.

Digital Initiatives and Automation in Financial Reporting

Through technological advancements and automation systems, the Indian government enhanced its financial reporting capabilities and cut down public fraud and simplified public finance administration. Key digital initiatives include:

Public Financial Management System (PFMS): The system serves as a single online solution to track real-time data about government spending along with funding transfers and collecting income. Through this platform government departments and states receive immediate access to complete allocation and dispersal data from different schemes.

Goods and Services Tax (GST) System: A single digital tax system through GST eliminates various indirect taxes and establishes better tax records while improving projection accuracy. Remote invoice processing through automation joins with e-way billing systems to increase tax compliance which results in better tax clearance transparency.

Direct Benefit Transfer (DBT) Mechanism: A direct benefit transfer mechanism provides leakage-free and efficient subsidy

and welfare benefits delivery to beneficiaries through their bank accounts. Public finance accountability increases together with the improvement of expenditure tracking and reduction of corruption.

Introduction of Gender Budgeting, Green Budgeting, and Outcome-Based Budgeting

India established particular budgeting systems to distribute resources that support environmental sustainability as well as social fairness through financial decisions which target societal needs.

Gender Budgeting: This process tracks public fund allocation to support women-centric empowerment and welfare goals. States together with ministries include gender-focused spending tracking components as part of their budgetary process.

Green Budgeting: The approach supports sustainable environmental policies while funding initiatives in clean energy, pollution control as well as climate adaptation measures. The system enables public identification of financing used for environmental conservation programs and green initiatives.

Outcome-Based Budgeting (OBB): This system looks at government spending effects rather than performing allocation tracking exercises solely. The method enables tracking of specific measurable results from budgetary allocations thus creating more efficient public expenditure and better accountability.

Adoption of Accrual Accounting in Select Government Agencies

Several public entities within India use accrual accounting along with state governments and government institutions to enhance financial transparency. The Ministry of Railways together with the **Urban Local Bodies (ULBs)** and defense sector have started using accrual-based financial reporting systems that demonstrate a true financial situation.

Benefits of Accrual Accounting:

- Accrual accounting reveals an entire overview of government property, debts and everlasting financial obligations.

- Public debt decisions along with pension liabilities and infrastructure investments get improved through this enhancement.

Case Studies and Best Practices in Public Sector Financial Reporting

Financial reporting within public sector institutions serves as the foundation for transparency along with mandatory accountability and money management. India applied multiple successful financial reporting methods with reforms which need further improvement according to international standards. This part examines financial transparency practices in India through successful case studies and provides international perspectives as well as an overview of worldwide best approaches to citizenship engagement.

Analysis of Successful Public Sector Financial Reporting Models in India

Multiple advanced financial reporting frameworks within India operate to enhance transparency in addition to enhancing accuracy and accountability throughout public finance operations.

Case Study 1: Public Financial Management System (PFMS) – Enhancing Real-Time Financial Tracking

Through the **Public Financial Management System (PFMS)**, Indian authorities developed real-time financial tracking for improved monitoring. Under the **Public Financial Management System** all government financial receipts, expenditures and fund transfers occur instantaneously through its IT infrastructure. Through its successful adoption in multiple ministries, the system increased budget efficiency and decreased funding losses while better monitoring took place. Through **PFMS** implementation for **MGNREGS**, fund transfer authorities can monitor payments which results in rapid wage distribution to beneficiaries.

Case Study 2: Rajasthan's Social Accountability Law – Strengthening Budget Transparency

Rajasthan strengthened budget transparency through its implementation of the Social Accountability Law in the state. The

Rajasthan government established the Social Accountability Law to require budgetary transparency through public disclosures combined with citizen involvement and grievance system management. Through this model, citizens have gained better oversight of government spending between infrastructure development programs and welfare programs.

Case Study 3: Kerala's Gender Budgeting Model

The state of Kerala started gender budgeting through its implementation of a gender-oriented budget monitoring system across the state's financial plan. The allocations receive classification through their effects on women's empowerment which further enhances gender-sensitive financial planning systems.

International Comparisons: How India's Financial Reporting compares to the UK, USA, and Australia

India has made significant progress in public financial reporting, but global best practices from **developed economies** offer key lessons:

Aspect	India	UK	USA	Australia
Accounting System	Cash-based accounting (gradual shift to accrual in select agencies)	Accrual-based accounting for all public sector finances	Modified accrual-based accounting with long-term projections	Accrual-based accounting with transparent fiscal policies
Budget Transparency	Improved with digital tools (PFMS, DBT, GST)	High transparency with open data policies	Detailed Congressional Budget Office (CBO) reports	Annual budget statements with citizen-friendly formats
Citizen Engagement	Limited to social audits in some states	Strong citizen engagement through online consultations	Town halls, public hearings on budget allocations	Comprehensive public finance reports in user-friendly language
Audit & Oversight	CAG audits but recommendations not binding	Independent UK National Audit Office (NAO)	Government Accountability Office (GAO) with legislative authority	Auditor-General's oversight with strong compliance mechanisms

Key Learnings for India:

- The move to accrual-based accounting methods will produce better financial transparency while improving sustainability of the public finances.
- The implementation of enhanced financial reporting engagement systems between citizens will build public trust in addition to increasing accountability.
- The audit institution known as CAG requires expanded powers equivalent to those exercised by GAO in the USA.

Best Practices in Budgetary Transparency and Citizen Engagement

Nations throughout the world have executed modern strategies to develop financial transparency and public citizen participation levels.

Best Practice 1: Open Budget Index (OBI) – Global Benchmark for Budget Transparency

The governments of New Zealand together with Sweden and Norway have earned their position as top performers in budget transparency because they offer unrestricted access to financial documentation. The OBI shows India holds a mid-range position while enhanced budget-time exposure and increased citizen interactions would boost its rating.

Best Practice 2: Participatory Budgeting in Brazil – Engaging Citizens in Financial Decisions

Brazil gives its citizens the power to choose how budget funds are distributed through local government decision-making votes. Such a model lets taxpayers monitor budget distribution to ensure all resources function effectively. India made a positive move towards social accountability through the implementation of the **Rajasthan Social Accountability Model**.

Best Practice 3: Australia's Plain-Language Budget Reports – Making Public Finance Understandable

The Australian government leads through its practice of creating easy-to-understand financial reports called Plain-Language Budget Reports. The budget fact sheets published by Australia

use easy-to-understand language to present financial reports so that all citizens can comprehend them. Budget summaries presented in simplified language would help India raise public understanding of financial matters among its citizens.

Future Trends in Public Sector Financial Reporting

- **AI and Big Data in Financial Analytics:** The government will boost its financial operations by applying artificial intelligence (AI) and big data systems to do real-time monitoring for fraud detection and budget prediction.
- **Full Transition to Accrual-Based Accounting:** Public sector institutions throughout India will enhance their adoption of accrual accounting standards which will improve their international financial transparency levels.
- **Block-chain for Financial Transactions:** Block-chain integration will enable tamper-resistant financial reporting with complete transparency and real-time information delivery.
- **Greater Citizen Engagement through Digital Platforms:** By expanding mobile applications and open data portals to distribute financial information openly to the public institutions will achieve greater transparency along with better accountability.

Policy Recommendations:

- **Enhance Fiscal Transparency through Open Data Initiatives:** Users should be able to access budget documents together with government expenditure reports and financial audit findings through efficient digital interfaces.
- **Strengthen Institutional Oversight and Independent Audits:** Public financial regulations must be enforced more strictly by **Comptroller and Auditor General (CAG)**.
- **Promote Accrual-Based Accounting across Public Sector Entities:** The implementation of accrual accounting should use an organized timeline beginning with essential government departments and ministries to establish its operation.

- **Increase Public Participation in Budget Processes:** A mechanism of participatory budgeting should be introduced both at local government and state governmental levels to enable citizens to take part in financial policy development.
- **Adopt International Best Practices for Budget Reporting:** Enhancing investor confidence and fiscal discipline requires public entities to use worldwide financial reporting benchmarks (IFRS, IPSAS) for their financial standards.

Conclusion

Public sector financial reporting in India progresses through fast changes because of digital transformation and modern policy implementations and international financial standards adoption. Financial transparency along with digital governance and budgetary reforms are improving yet accuracy of data and political interference together with accounting constraints have persisted. In order to establish an accountable public financial management system the key elements are institutional oversight strengthening as well as technological advancements and increased public involvement. India can create an advanced and sustainable financial reporting system for the future through futuristic policies which use technology to drive financial reform.

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Investment Opportunities and Risks in the Indian Stock Market: A Comprehensive Analysis of Trends, Challenges, and Future Prospects

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Abstract

The Indian stock market, one of the largest and most dynamic markets in the world, offers numerous investment opportunities for both domestic and international investors. However, the volatility, regulatory changes, and external factors pose significant risks to investors. This paper explores the investment opportunities available in the Indian stock market, evaluates the associated risks, and provides insights into the current trends and future prospects. The aim is to provide a comprehensive understanding of the factors influencing investment decisions, the role of regulatory frameworks, and the potential growth of the market in the coming years.

Keywords: Challenges, Indian stock market, Investment opportunities, Prospects, Risks, Trends.

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1. Introduction

A strong capital market is vital for a country's growth, as it supports both short- and long-term financing for businesses and projects. The capital market helps direct funds into different sectors, fostering economic development. Effective access to funds, well-organized participants, and entrepreneurial spirit are key to growing a strong market, which in turn supports business expansion and economic prosperity (Schiantarelli, 1996).

The stock market is a major indicator of a country's economic health, helping companies raise capital and boosting industrial growth. Governments create policies to encourage wealth creation and ensure that earnings are used productively (Blanchard & Perotti, 2002). By maintaining a stable market, they protect investors and foster investment confidence (Abel, 1983).

When companies need capital, they issue securities in the primary market to raise funds. Afterward, these securities can be traded in the secondary market, providing liquidity and helping determine fair market values, which supports efficient resource allocation (Schiantarelli, 1996).

1.1 Stock market in India

The history of the stock market in India began in the late 18th century, with significant development following the Companies Act of 1850, which introduced limited liability for companies and sparked investor interest (Mukherjee, 2007). The stock market became more regulated over time, particularly with the formation of the Securities and Exchange Board of India (SEBI), ensuring market transparency.

The Bombay Stock Exchange (BSE), established in 1875, became the oldest stock exchange in Asia. The National Stock Exchange (NSE), founded in 1992, is now the largest and most advanced exchange in India (Mukherjee, 2007). The Securities Contracts (Regulation) Act, 1956, strengthened regulation, requiring government recognition for stock exchanges. By 2005, 23 exchanges were recognized, enhancing market stability and boosting investor confidence (Mukherjee, 2007).

1.2 Structure of the Indian Stock Market

The Indian stock market consists of two major exchanges: the **BSE** and the **NSE**. The BSE is the oldest and has played a pivotal role in India's financial history, while the NSE is the largest and most technologically advanced exchange in the country. The market is highly regulated by the **Securities and Exchange Board of India (SEBI)**, which ensures that stock trading is conducted in a fair, transparent, and orderly manner. SEBI plays a crucial role in protecting the interests of investors, promoting the development of the securities market, and regulating market intermediaries

1.3 Investment Opportunities in the Indian Stock Market

India's stock market offers a wide range of investment options for both retail and institutional investors. The primary securities traded on the Indian stock exchanges are equities, bonds, and derivatives.

- **Equities:** Investing in shares of publicly listed companies is one of the most popular investment options in India. Investors can purchase stocks in sectors such as information technology, finance, healthcare, and consumer goods. The stock market offers opportunities for both long-term capital appreciation and short-term trading gains.
- **Bonds:** Government bonds, corporate bonds, and municipal bonds are other popular investment vehicles. Bonds tend to be less volatile than equities and are typically preferred by conservative investors seeking fixed returns.
- **Mutual Funds:** With the growing participation of retail investors, mutual funds have become a popular investment avenue. These funds pool money from various investors to invest in a diversified portfolio of stocks, bonds, and other securities.
- **Derivatives:** The NSE offers a platform for trading in derivative instruments like futures and options. These financial products are widely used for hedging and speculating purposes, providing opportunities for sophisticated investors.

1.4 Government and SEBI Regulations

The Indian government and SEBI have implemented a series of measures to ensure the stability and integrity of the stock market. The **Securities Contracts (Regulation) Act, 1956** provides a legal framework for regulating securities transactions. SEBI, the primary regulatory body, enforces strict guidelines to prevent market manipulation, insider trading, and other unethical practices.

One of SEBI's most significant initiatives was the introduction of **electronic trading** in the early 2000s, which has led to increased transparency and faster transactions. SEBI also mandates companies to disclose their financial results regularly, ensuring that investors have access to accurate and timely information.

Furthermore, the government has introduced several tax incentives to promote investments in the stock market. For example, long-term capital gains tax on stocks held for more than one year is exempt up to a certain threshold. These measures aim to increase the participation of individual investors in the capital market.

1.5 Trends in the Indian Stock Market

The Indian stock market has witnessed significant growth in recent years, driven by several key trends. One of the most prominent trends is the increasing **digitalization** of the financial markets. The rise of **online trading platforms** and **financial technology (FinTech)** innovations has made it easier for both retail and institutional investors to access the market, broadening the investor base. Moreover, **foreign institutional investment (FII)** inflows have been a major contributor to the market's growth, as India continues to attract global attention due to its economic potential and promising market dynamics (Sundaram, 2019).

Additionally, sectors such as **technology**, **pharmaceuticals**, **renewable energy**, and **consumer goods** are experiencing notable growth. The Indian government's initiatives like **Startup India**, **Make in India**, and **Digital India** have fuelled the development of these sectors, making them attractive to investors seeking high returns. The surge in **e-commerce** and **healthcare**, especially during the COVID-19 pandemic, further highlights the shift

in focus toward technology-driven growth in India (Basu & Raghunathan, 2020).

1. Technological Advancements

One of the key trends in the Indian stock market is the increasing role of technology. The National Stock Exchange (NSE) and Bombay Stock Exchange (BSE) have adopted electronic trading platforms, making trading more accessible and transparent. This shift has lowered transaction costs and improved market efficiency, contributing to the rise in investor participation (SEBI, 2018).

2. Increased Retail Investor Participation

Over the past decade, there has been a marked increase in retail investor participation in India's stock market, driven by the growth of digital platforms, financial literacy programs, and government initiatives. Retail investors are now more inclined to invest in mutual funds, stocks, and bonds, with the younger generation leading the charge toward equity investments (Vohra & Bhardwaj, 2015).

3. Foreign Institutional Investments (FII)

Foreign institutional investors continue to play a major role in the Indian stock market. India's increasing integration with the global economy, along with favourable policies for foreign investors, has led to an influx of foreign capital. The Foreign Direct Investment (FDI) reforms and liberalization of the investment environment have further opened up opportunities for global investors (Basu & Raghunathan, 2020).

1.6 Challenges in the Indian Stock Market:

Despite these trends, the Indian stock market faces several challenges. **Market volatility** is one of the most significant risks, with sharp fluctuations in stock prices driven by both domestic and global factors. **Global economic conditions**, such as oil price changes or economic downturns, significantly impact investor sentiment, contributing to heightened market fluctuations (Gupta, 2019).

Another challenge is **regulatory uncertainty**. The Indian stock market is often affected by changes in taxation policies, corporate governance issues, and the enforcement of financial regulations. The **frequent changes** in the **Goods and Services Tax (GST)** and **capital gains tax** can create confusion and risks for investors. Additionally, market manipulation and corporate scandals raise concerns about the integrity and transparency of the stock market (Sundaram, 2019).

1.7 Risk and Challenges of Stock Market Investment in India

While the Indian stock market offers lucrative investment opportunities, it is not without risks. Some of the primary risks include:

1. **Market Volatility:** The stock market is highly susceptible to fluctuations caused by domestic and global factors, including economic indicators, government policies, and geopolitical events. This volatility can result in significant losses, especially for short-term traders.
2. **Liquidity Risk:** Although the Indian stock market is relatively liquid, some stocks, especially those of smaller companies, may not have enough trading volume, which could make it difficult for investors to enter or exit positions.
3. **Regulatory Risk:** The regulatory environment, while generally supportive of investors, can sometimes change unpredictably. Regulatory changes in tax laws, foreign investment policies, or trading practices can impact stock market performance.
4. **Fraud and Mismanagement:** Despite SEBI's regulatory oversight, fraud, insider trading, and corporate mismanagement continue to pose risks for investors. Investors need to conduct thorough research before investing in a particular stock or security.

1.8 Future Prospects of the Indian Stock Market:

Looking ahead, the future of the Indian stock market appears promising. Continued technological advancements are expected to play a pivotal role in enhancing market efficiency and accessibility. The rise of **artificial intelligence (AI)**, **blockchain**

technology, and **algorithmic trading** will likely improve transparency and liquidity, making the market more attractive to investors (Basu & Raghunathan, 2020).

Additionally, as India continues to push for **economic reforms**, there is strong potential for the **capital market to grow** and attract more long-term investments. The **growth of retail investors**, bolstered by **financial literacy programs** and government policies supporting **financial inclusion**, will likely expand the market's reach. With a growing middle class and increased consumer demand, sectors such as **e-commerce**, **technology**, and **renewable energy** are expected to drive the market forward, contributing to economic growth and stability (Gupta, 2019).

In conclusion, while the Indian stock market faces challenges such as volatility and regulatory uncertainty, the overall outlook remains positive. The trends of increasing digitalization, rising investor participation, and government support are shaping the future of the market, positioning it as a key player in the global economy.

1.9 Impact of Stock Market Investment on the Indian Economy

The stock market plays a critical role in the Indian economy by providing companies with access to capital, which is essential for their growth and expansion. It helps businesses raise funds through **Initial Public Offerings (IPOs)**, enabling them to invest in infrastructure, research and development, and human capital. Furthermore, the stock market serves as a barometer of economic performance, reflecting investor sentiment and expectations about the future direction of the economy.

Stock market investment also contributes to the development of other financial markets in India. As companies list their shares and raise capital through the market, it encourages the growth of mutual funds, bonds, and other investment vehicles, making the financial ecosystem more diversified and robust.

1. Literature Review:

Palamalai & Prakasam, 2015, "This study explores the relationship between stock market development and economic growth in India, using cointegration and causality tests from June 1991 to

June 2013. The findings reveal a long-run equilibrium relationship between stock market indicators, such as market capitalization and turnover ratio, and economic growth. Specifically, there is bidirectional causality between market capitalization and economic growth, while unidirectional causality runs from turnover ratio to economic growth in both the short and long term. These results suggest that stock market development positively influences economic growth in India. Based on these findings, the study recommends that regulators enhance the size, depth, and liquidity of the Indian stock market through effective policy frameworks and relaxing listing requirements to encourage more market participants, thus fostering competition and improving the quality of securities investments, which will further stimulate economic growth in India

(Aggarwal, 2023) “A Study of Evaluating Investment Opportunities in Indian Stock Market” in this paper the researcher revealed that both fundamental and technical analysis were important for new traders in the Indian stock market. Fundamental analysis required understanding financial details of a company, while technical analysis was easier for smaller traders. The five key ratios helped investors decide if they should buy a stock, as they showed the company’s financial health. Though many ratios existed, these five had the most impact. Technical analysis was simpler and worked well for intraday trading. Traders had to be careful and avoid risking too much. The stock market could bring quick profits but also big losses. To build a good portfolio, it was best to invest in different types of stocks—large-cap stocks for less risk, mid-cap stocks for better returns, and small-cap stocks for higher risk.

(Morck, Shleifer & Vishny, 1990) “The Stock Market, Is the Market a Sideshow?” this paper explored whether the stock market influences investment. It found that while stock price changes are linked to investment changes, the effect is small. Stock prices don’t provide much new information to managers about their companies, and they don’t explain most investment decisions. The stock market isn’t a major factor in how companies allocate capital. At a broader level, stock prices can signal good economic times, but this effect can be misleading. Stock prices don’t lead to more financing for companies, and they don’t predict future

economic activity well. The stock market isn't a strong predictor of the future or a big driver of overall investment. However, in the IPO market, stock prices and investor sentiment do play a role in the timing of new offerings, which needs further research.

(Kapparashetty, 2019) "Challenges and Opportunities of Indian Stock Market" in this paper the researcher revealed that A stock exchange was a platform for trading financial instruments, regulated by SEBI. Companies listed their shares in the primary market through an IPO, where investors bid for stocks. After listing, shares were traded in the secondary market by buyers and sellers. Stock brokers acted as intermediaries between investors and the exchange. When an investor placed an order, the broker matched it with a sell order at the exchange. Once the price was agreed upon, the trade was confirmed, and ownership was transferred in the settlement process.

(Kumar & Agarwal,2023). In this paper the researcher revealed that Global uncertainty has led some investors to turn to safe assets like gold and government bonds, with hopes that recent bank failures might cause the Federal Reserve to pause interest rate hikes. Bitcoin hit a high of Rs. 27,000, and Brent crude oil dropped 2.3%. The stock market, where securities are traded, has grown in importance, with online markets attracting more investors. Intraday trading is seen as a good way to earn money. Stock market cycles show longer and more volatile bull phases, but volatility has decreased in recent years. Despite setbacks from Covid-19, the stock market rebounded strongly along with the nation's economic recovery.

2. Significance of the study:

The study is important as it provides critical insights into both the **investment opportunities and risks** within the Indian stock market, helping investors and policymakers navigate a dynamic and evolving landscape. By examining emerging sectors, financial instruments, and the impact of global economic conditions, the study equips investors with the knowledge to make informed decisions while highlighting the challenges of market volatility and regulatory uncertainties. It also emphasizes the need for a well-regulated environment and better risk management strategies, fostering responsible investing and contributing to the

growth of India's financial markets. Ultimately, the study plays a vital role in promoting financial literacy, encouraging sustainable investments, and supporting India's economic development through a more stable and transparent stock market.

3. Objectives of the study:

1. To study the growth, development, and key changes in the structure of the Indian stock market.
2. To evaluate the investment opportunities and risks in the Indian stock market.

4. Methodology

This paper adopts a qualitative and analytical approach to explore the investment opportunities, risks, trends, and future prospects in the Indian stock market. The methodology primarily relies on secondary data collected from credible sources, including academic journals, government reports, stock exchange data (from NSE and BSE), and reports from regulatory bodies like SEBI. Academic articles and research papers provide insights into market trends, investment opportunities, and risks, while reports from Indian financial institutions and market analysts help assess current market conditions. Government publications, such as those from the Ministry of Finance and RBI, offer valuable information on economic policies, taxation, and market regulations, which directly influence stock market dynamics. Data from the NSE and BSE is used to analyse market performance, sectoral growth, and trading volumes, while SEBI reports offer insights into regulatory frameworks and investor protection measures. Additional data from financial databases like Bloomberg and Reuters supplement the analysis by providing a global perspective. The data will be analysed through descriptive and comparative analysis, identifying trends, assessing risks, and evaluating potential investment opportunities.

5. Limitation:

Limitation of the study is given below:

Data Availability: Secondary data may be incomplete or outdated, potentially limiting the scope of analysis.

Data Bias: Some data sources, such as corporate annual reports or media articles, may present a biased view based on the publisher's perspective.

Generalization: Secondary data might not always capture regional or sector-specific variations, which may affect generalizations made in the analysis.

6. Findings:

The findings for the objective "To study the growth, development, and key changes in the structure of the Indian stock market,":

1. **Historical Growth:** The Indian stock market originated in the late 18th century, with the establishment of the first stock exchange in Bombay. However, significant growth began after the passage of the **Companies Act of 1850**, which introduced limited liability and encouraged greater investor participation (Mukherjee, 2007), (Securities and Exchange Board of India [SEBI], 2018). The establishment of the **Bombay Stock Exchange (BSE)** in 1875 marked a key development in India's financial infrastructure, making it the oldest stock exchange in Asia.
2. **Regulatory Developments:** The **Securities and Exchange Board of India (SEBI)**, established in 1988, has played a crucial role in regulating and overseeing the Indian stock market. It introduced electronic trading systems in the 1990s, making trading more transparent and reducing manipulation. The **Securities Contracts (Regulation) Act, 1956** also provided a legal framework to regulate stock market operations, contributing to market stability (Mukherjee, 2007).
3. **Technological Advancements:** The launch of the **National Stock Exchange (NSE)** in 1992 brought significant technological innovations to India's financial markets. The NSE became the largest and most technologically advanced exchange in India, promoting efficient trading practices. Its electronic platform also helped in reducing transaction costs and increasing market accessibility. (SEBI 2018)
4. **Investor Participation:** Over the years, investor participation in the Indian stock market has expanded considerably. By the early 2000s, the market began to see increased interest

from both retail and institutional investors. The number of investors has surged, with India now having over 20 million investors.

5. **Market Growth and Global Positioning:** The Indian stock market is now one of the largest in the world. As of recent reports, the **Bombay Stock Exchange (BSE)** and **National Stock Exchange (NSE)** have become key players in global financial markets, with the latter being one of the top exchanges in the world by transaction volume (Mukherjee, 2007).

The findings with available references for the topic “To evaluate the investment opportunities and risks in the Indian stock market”:

1. Investment Opportunities:

Equities and Sectors: The Indian stock market offers extensive investment opportunities across several growing sectors like information technology, pharmaceuticals, energy, and consumer goods. Companies like Tata Consultancy Services (TCS), Infosys, and Reliance Industries have demonstrated strong long-term growth potential, offering significant returns to equity investors (Sundaram, 2019). The Indian market is increasingly recognized for its innovation in tech and digital infrastructure, making it an attractive proposition for long-term equity investors.

Mutual Funds and Bonds: India’s financial market also provides a diverse range of mutual fund options that cater to risk-tolerant and conservative investors alike. Exchange-Traded Funds (ETFs) and Index Funds have gained popularity due to their diversification and low management fees. Additionally, the bond market offers fixed-income opportunities, with government bonds providing relatively safer investment options compared to stocks (Gupta, 2019).

Government Incentives and Tax Schemes: Government-driven initiatives like Equity-Linked Savings Schemes (ELSS), which offer tax exemptions under Section 80C of the Income Tax Act, make the Indian stock market more appealing for retail investors looking to save taxes while investing. These schemes allow investors to earn

returns and benefit from tax deductions simultaneously (Basu & Raghunathan, 2020).

2. Risks:

Market Volatility: The Indian stock market is often volatile, with stock prices fluctuating due to a combination of domestic and international factors. Events such as political changes, government policies, or global economic crises can trigger sharp fluctuations. For example, the COVID-19 pandemic caused a steep decline in market prices in early 2020, showcasing the market's sensitivity to both external and internal shocks (Sundaram, 2019).

Liquidity Risk: While the larger, more established companies listed on the NSE and BSE tend to offer sufficient liquidity, smaller or less liquid stocks pose risks. This means that investors may find it difficult to buy or sell large quantities of stock without affecting the price, particularly in smaller companies or those in niche sectors (Gupta, 2019).

Regulatory Risks: Despite robust regulations by the Securities and Exchange Board of India (SEBI), changes in policies related to taxation, foreign investment, or financial disclosures can create uncertainty in the market. For instance, any changes in capital gains tax rates or foreign direct investment (FDI) policies can directly affect stock market dynamics (Basu & Raghunathan, 2020).

Currency and Global Risks: Being a part of the global economy, India's stock market is impacted by foreign exchange fluctuations and changes in global trade. The depreciation of the Indian rupee, for example, may affect companies with significant exposure to foreign markets, leading to increased operational costs and reduced profitability (Sundaram, 2019).

7. Conclusion

The Indian stock market presents a broad range of investment opportunities for both domestic and international investors. The market has shown tremendous growth, driven by technological advancements, sectoral growth, and government incentives. However, like all markets, it comes with its own set of risks, including volatility, liquidity issues, and regulatory

uncertainties. Investors must evaluate these factors and develop strategies to manage risks effectively while capitalizing on growth opportunities. The continued development of market infrastructure and policies that promote transparency and ease of investment are expected to bolster the stock market's future growth, making it an even more attractive option for investors in the coming years.

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Celluloid India: Cinema as a Mirror to Society

Tamasa Ghosh*

Abstract

Cinema plays a dual role in its relationship with society. On one hand, it reflects the societal norms, values, and realities, acting as a mirror to society. On the other hand, it is also influenced and shaped by the exact societal norms, creating a dynamic interplay between the two. It is a fascinating blend of art and technology, that influences our values, echoes our socio-cultural beliefs, and impacts the way we perceive the world. Cinema is beyond entertainment; it informs, reflects values, opens doors for new ideas, and often impacts our belief system. It creates an emotional connection with audiences and has the power to break stereotypes and propel social change. With the advent of technology, there has been a paradigm shift in the film-viewing experience. Watching films was once a community experience but with the rise in streaming platforms like Netflix and Amazon Prime, ZEE5, SonyLiv, Hotstar to name a few, it has become a more personal experience. The transition of film viewing from 35mm and 70mm reels in theatres with the public, to television, VHS, VCR, and DVD players at home with family and presently to on-demand curated experience on OTT platforms has been remarkable. The medium has evolved with time and technology and so

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have the tastes and preferences of audiences. In this chapter, we will study the journey the films over the years their role in society, and their impact on the lives of their audience.

Keywords: #cinema, #society, #socialchange, #audience #paradigmshift #theatre #OTT.

Introduction

The relationship between cinema and society is a long-standing one, dating back to the early days of filmmaking. At the outset films were perceived as a novelty, with short films showcasing everyday life, comedic skits, and historic events. Those films showcased the societal values and norms of that era. With the passage of time the quality of cinema evolved, filmmakers started focussing on varied and complex socio-economic issues like poverty, crime, and social and economic inequality. The emergence of new wave film movement and counterculture cinema marked a significant shift in the relationship between cinema and society. Some path-breaking storytelling and techniques adopted in films like Vittorio De Sica's *Bicycle Thieves* and Jean-Luc Godard's *Breathless* paved the way for worldwide film movements. Films like *Pather Panchali*, *Aparajito* and *Apur Sangsar* (Apu Trilogy) directed by the renowned director Satyajit Ray presented the social realities and inequalities of that time whereas films like *Devi* and *Nayak* explores the complexities of identity and challenged mainstream values set by the Indian society at that time. Filmmakers like Mrinal Sen, Ritwik Ghatak gifted the world some cult-classics like *Bhuvan Shome*, *Interview*, *Meghe Dhaka Tara* and *Subornorekha* which remained relevant beyond time and space.

The journey of cinema: From global to local

The journey of cinema from the global stage to the Indian context has been a fascinating one. From the early days of cinema, when Indian filmmakers were influenced by global cinematic trends, to the rise of Indian cinema as a distinct entity, the journey has been marked by a gradual shift from globalization to localization. As Indian cinema evolved, it began to reflect the country's diverse cultures, languages, and experiences, giving rise to vibrant regional film industries like Bollywood, Tamil, Telugu, and Malayalam. The global era of cinema can be traced back to the late

nineteenth to early twentieth century with the Lumière brothers' *Cinématographe* released in 1895. Hollywood dominated global cinema, producing films that appealed to a broader audience. With time there have been interesting international collaborations resulting in co-productions among filmmakers across borders. Notable films like *Rashomon*, a Japan-India co-production, directed by Akira Kurosawa in 1950 to The *Lunchbox*, an India-France-Germany co-production, directed by Ritesh Batra in 2013 have enthralled the audiences with their engaging and relatable storytelling.

The mid-twentieth century witnessed a rise of film movements at the national level, with the likes of critically acclaimed directors Jean-Luc Godard, François Truffaut, Satyajit Ray, Ritwik Ghatak, Mrinal Sen to name a few, films became an effective tool of mass communication creating works that reflected local cultures and concerns and issues that concerned the majority of the population and thus striking a chord with the audience immediately. The New Wave filmmakers made a profound impact on the cinematic landscape, revolutionizing the art of storytelling and filmmaking. By rejecting traditional narrative structures and embracing innovative techniques, they infused cinema with a fresh sense of realism, experimentation, and creative freedom. Regional film industries also flourished over time, with Bollywood (India), Nollywood (Nigeria), and Hong Kong cinema becoming significant players. Governments also recognized the potency of cinema as a tool for disseminating information, shaping public opinion, and influencing minds, and soon began to use it as a tool of propaganda by extending financial support to the local film industries through subsidies, and film commissions. In India, The National Film Development Corporation of India (NFDC) is a central government agency established in 1975 to promote and support the development of Indian cinema, *Manthan* (1976), *Bhumika* (1977), *Mirch Masala* (1987), *Salaam Bombay!* (1988), are some of the notable films produced by NFDC. The 1970s and 1980s witnessed a significant shift in Indian cinema, with the emergence of masala films as a dominant force minting money at the box office. This change was fundamentally driven by the success of films like *Sholay* (1975) and *Amar Akbar Anthony* (1977), which amalgamated action, comedy, and drama to create a

new kind of cinematic experience. Multi-genre storytelling backed by over-the-top performances and larger-than-life characters, melodramatic acting, and dramatic plot twists were the main attributes of these films. Elaborate musical sequences that often drive the plot forward. Films like *Roti, Kapda aur Makaan* (1974), and *Mr. India* (1987) also presented social commentary.

Cinema in India underwent major transformations over the decades. In the 1990s, Bollywood films were heavily influenced by Hollywood, with many incorporating Western-style action sequences and romantic comedies. Films like *Dilwale Dulhania Le Jayenge* (1995), *Dil To Pagal Hai* (1997), and *Kuch Kuch Hota Hai* (1998) dominated the decade, showcasing romantic relationships and family values. Shah Rukh Khan became a phenomenon of this era. Action films like *Ghayal* (1990), *Khiladi* (1992), and *Karan Arjun* (1995) featured high-octane action sequences, often inspired by Hollywood films. Nonetheless, this period also saw the rise of regional cinema, with industries like Tamil, Telugu, and Malayalam gaining prominence. Tamil films namely *Nayakan* (1987) and *Thalapathi* (1991) resonated with the audiences immensely. Films like *Geetanjali* (1989) and *Shiva* (1990) created a stir in the Telegu film industry in the late 1980s and early 1990s. Around the same the Bengali film fraternity saw the entry and rise of the celebrated director Rituporno Ghosh, his film *Unishe April* (1994) is regarded as a landmark film in Bengali cinema, celebrated for its nuanced exploration of complex relationships, themes, and emotions. Post-2000s, Indian cinema experienced a resurgence, with filmmakers like Ram Gopal Verma, Anurag Kashyap and Dibakar Banerjee pushing the boundaries of storytelling and cinematic style. Films like *Satya* (1999), *Love, Sex aur Dhokha* (2010), and *Gangs of Wasseyypur* (2012) revolutionized Indian cinema with its gritty realism, dark themes, and innovative storytelling. The advent of OTT platforms like Netflix, Amazon Prime, ZEE5, SonyLiv and Hotstar in recent times has further transformed the industry, enabling creators to produce innovative, niche content and reach global audiences. Today, Indian cinema is a vibrant, diverse ecosystem, with filmmakers continually experimenting with new themes, genres, and formats. As the internet continues to make content instantly accessible, this journey promises to be fulfilling for both audiences

and creators alike. From the audience's perspective, having a vast array of content at their fingertips offers unparalleled convenience and choice. Meanwhile, from the creator's standpoint, the digital landscape presents endless opportunities to craft, share, and connect with audiences through innovative, engaging, and captivating content.

Portrayal of Women in Cinema

The depiction of women in cinema has undergone substantial transformations since its inception. In India, initially male actors used to portray female characters since acting as a profession was not accepted as a noble profession for women in the Indian society. Due to societal taboos and limited female participation women refrained from working in films in any capacity. Actresses like Devika Rani, Leena Chitnis, Nargis, Madhubala and Meena Kumari gained popularity; by mostly acting in stereotypical roles like mothers, wives, and courtesans. These roles of the female characters were often written in a conventional way, subservient to male protagonists. But eventually those characters became household names and the giving stardom to the actresses thus paving the way for future generations. While director Mehboob Khan in his landmark film *Mother India* (1957) presented the protagonist Radha played by Nargis as a strong character, a true feminist to some extent, but the portrayal of the character was also bound by stereotypes like self-sacrificing, submissive, and obedient wife, reinforcing patriarchal norms. Another cult-classic of that era *Pakeezah* (1972) directed by Kamal Amrohi, although known for its stunning visuals, memorable music, and poignant storytelling but the film's representation of women is complex and multifaceted, reflecting the societal norms and values of the time. Sahibjaan played by Meena Kumari was a courtesan who embodies the contradictions of her profession. She was represented as a strong-willed and independent woman who is also vulnerable and trapped in her circumstances. At the same time Satyajit Ray gave us female protagonists like Arati played by Sumitra Mukhopadhyay in *Mahanagar* (1963) an ordinary homemaker turned into an extraordinary working professional when life threw challenges at her. Women in renowned director Mrinal Sen's films *36 Chowringhee Lane* (1981) and *Khandhar* (1984) are represented as far more strong and independent defying some of

the societal norms. These women were not insensitive, they were flawed, and the depiction was in-sync with their reality. Actresses Smita Patil and Shabana Azmi were instrumental in championing parallel cinema, a genre that tackled socially relevant issues and captivated audiences nationwide. Through their powerful performances, they helped bring attention to pressing concerns, leaving a lasting impact on Indian cinema and resonating with millions of viewers. In 2005, director Nagesh Kukunoor likely pioneered the first Hindi film centred on female friendship with *Dor*. The film also focused on empowerment, and social justice, the film creates an impact for its thought-provoking storyline, and social relevance. Despite their vastly different outlooks on life and the tragic circumstances that bring them together, Meera and Zeenat form an extraordinary bond, weaving a spell of cinematic magic that transcends their disparate worlds. For decades, Hindi cinema has relegated actresses to ornamental roles, reducing them to mere props or trophies that embellish the frame without contributing substance to the narrative. Many female characters have been crafted with minimal depth, serving only to enhance the visual appeal of the film rather than driving the story forward. This shift was not confined to Hindi cinema alone, but also permeated regional cinema, where traditionally, male actors had dominated the spotlight, leaving female characters to play secondary roles with a few exceptions in parallel films. The 1970s and 1980s were dominated by masculinity-fuelled action films, where heroes emerged as chivalrous saviours. This trend continued into the 1990s and early 2000s, where romantic comedies and love stories perpetuated the notion of machismo, often portraying men as the dominant force in relationships and reinforcing the idea of male power and control. The 1980s and 1990s also ushered in the rise of iconic female superstars in Indian cinema, who left an indelible mark on the industry and paved the way for future generations of actresses. Films like *Chandni* (1989) and *Tezaab* (1988) stood out as female-centric classics, shedding light on the stories and struggles of women. Against this backdrop, Sridevi and Madhuri Dixit ascended to iconic status, embodying beauty, elegance, and youthful energy. Their mesmerizing performances captivated audiences, inspiring a generation of women and cementing their legacies as two of Indian cinema's most beloved actresses. Traditional Hindi masala films have predominantly

perpetuated stereotypical portrayals of women, often relegating them to narrow, conventional roles that reinforce societal clichés rather than showcasing nuanced, multidimensional characters. In 2000, the film *Astitva*, featuring Tabu, sparked controversy with its fearless and unflinching portrayal of femininity and female desire, shattering societal norms and challenging traditional notions of womanhood and motherhood.

Representation of marginalized community in Cinema

Indian cinema has a long and complex history of representing marginalized communities. The representation of these communities in both mainstream and parallel cinema has been a focus of many discussions. Indian cinema has perpetuated stereotypical, one-dimensional portrayals and reinforced social hierarchies, marginalizing vulnerable groups. But, over the past decade, a notable shift has occurred, marked by a growing sensitivity towards these sections of the society. This increased understanding has led to more nuanced and inclusive representations, signalling a positive transformation in the industry's approach to depicting diverse communities. The representation of marginalized groups in Indian films has undergone significant changes over the years, reflecting shifting societal attitudes and the evolving film industry. During the early years (1930s-1960s), women were often portrayed as submissive, obedient, and domesticated. Films like *Achhut Kanya* (1936) and *Mother India* (1957) reinforced patriarchal norms. Through the 1970s and 1980s women-centric films like *Aandhi* (1975), *Arth* (1982), and *Damul* (1984) emerged, showcasing strong female characters and exploring themes like feminism and social justice. In the recent times, Indian cinema has seen a surge in women-led films, such as *The Dirty Picture* (2011), *Pink* (2016), and *Thappad* (2020), which tackle issues like sexism, oppression, harassment, and domestic violence.

Although in the early years to the recent past Indian cinema often used transgender characters as comedic relief or villains, perpetuating negative stereotypes their depiction and representation have evolved with time, some of the path-breaking films from this genre are *My Brother... Nikhil* (2005) and *I Am* (2010) marking a shift towards more sensitive and nuanced

portrayals of transgender individuals. Films like *Aligarh* (2016) and *Ek Ladki Ko Dekha Toh Aisa Laga* (2019) have continued to promote understanding and acceptance of transgender individuals. Over the last few decades, Indian cinema has made significant progress in representing marginalized groups over the years. Nevertheless, there is still a need for more nuanced and inclusive storytelling to promote empathy, understanding, and social change.

Impact of Cinema in our Everyday Lives

The impact of cinema on our everyday lives is profound, influencing our culture, socio-economic dynamics, gender representation, and day-to-day activities in complex ways. Cinema reflects and shapes our cultural identity, providing a window into our history, traditions, and values. It influences our socio-economic dynamics, often highlighting social issues, sparking conversations, and driving change. Cinema also plays a significant role in shaping gender representation, challenging stereotypes, and promoting equality. Through representation, cinema has the power to break down barriers, challenge patriarchal norms, and inspire feminist movements. Cinema impacts our day-to-day activities, from the music we listen to, the fashion we follow, to the way we express ourselves. Movie quotes, dialogues, and characters often become an integral part of our pop culture lexicon, referencing them in our daily conversations. Cinema also influences our relationships, with on-screen romances and friendships often shaping our expectations and perceptions of love and relationships. Cinema has become an integral part of our entertainment, leisure, and socializing activities, providing a shared experience that brings people together.

Celluloid Activism: The agent for social change

Celluloid activism refers to the use of cinema as a tool for social change. Indian cinema has a rich history of using films as a medium to raise awareness about social issues and inspire change. For instance, films like *Mother India* (1957) and *Do Bigha Zamin* (1953) highlighted the struggles of rural India and the plight of farmers, sparking conversations about land reform and social justice. More recent films like *Mrs.* (2025) and *Pink* (2016) have tackled issues like gender roles and consent, respectively, helping

to break down stigmas and challenge societal norms. Some of the other notable examples include *My Name Is Khan* (2010), which explored themes of identity, community, and acceptance. Through celluloid activism, Indian cinema has consistently demonstrated its power to inspire, educate, and mobilize audiences towards creating a more just and equitable society. Hindi cinema has consistently demonstrated a sympathetic stance towards student activism, showcasing its significance and impact through various films. Notable examples include *Yuva* (2004), *Rang De Basanti* (2006), *Gulaal* (2009), *Aarakshan* (2011), and *Raanjhanaa* (2013), which highlight the passion, idealism, and struggles of student activists, underscoring the importance of their role in shaping society and driving change.

New Directions in Cinema and Society

The relationship between cinema and society is complex and multifaceted. As we have explored in this chapter, cinema has the power to shape our perceptions, challenge our assumptions, and inspire social change. The evolving landscape of cinema, with the rise of new technologies, platforms, and voices, offers exciting new directions for the study of cinema and society. The impact of cinema is so profound that governments have leveraged it as a strategic tool for political communication, often using it to disseminate their ideology and propaganda. This phenomenon is evident in Indian cinema, where films like *Roja* (1992) and *The Legend of Bhagat Singh* (2002) have been used to promote nationalistic sentiments and patriotic fervour. Similarly, films like *Swades* (2004) and *Toilet: Ek Prem Katha* (2017) have been aligned with government initiatives, such as rural development and sanitation, respectively, highlighting the significant role of cinema in shaping public opinion and promoting government agendas. In the Indian context, films like *Idiots* (2009) questioned the conventional education system, encouraging students to think creatively and pursue their passions and in *Padman* (2018) a powerful social message was conveyed in the context of Indian society, highlighting the importance of menstrual hygiene management, breaking taboos and stigmas surrounding menstruation, and promoting women's empowerment and dignity. These films have demonstrated the power of cinema to challenge social norms and promote social

change. More recent films like *Newton* (2017) and *Article 15* (2019) have highlighted the ongoing struggles of marginalized communities in India, sparking important conversations about social justice and equality.

The advent of Internet has given rise to the streaming platforms like Netflix and Amazon Prime in India has also enabled new voices and perspectives to reach a wider audience. Web series like *Sacred Games*, *Pataal Lok*, *Black Warrant* and *Made in Heaven* have pushed the boundaries of Indian storytelling, tackling complex social issues like corruption, patriarchy, and identity. As we move forward into a new era of cinematic innovation and experimentation, it is more important than ever to consider the social, cultural, and political contexts in which Indian films are made, consumed, and interpreted. It is essential that we acknowledge and appreciate the significant impact of cinema on society, while also encouraging filmmakers to adopt a more responsible and thoughtful approach when tackling sensitive topics. Given its immense influence, cinema has the potential to raise awareness, spark meaningful conversations, and drive positive social change, making it a crucial tool for promoting social justice, equality, and progress.

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Sustaining Journalism in the Digital Age: The Rise of Subscription Models in Indian Digital News Media

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Abstract

This chapter examines the rise of subscription model as an alternative and sustainable revenue strategy for Indian digital news media. With tech giants such as Google and Facebook dominating digital advertising, online news outlets face mounting financial challenges and are increasingly turning to subscription-based revenue frameworks. The chapter highlights how traditional news platforms such as The Hindu, The Times of India, and on the other hand digital native platforms like Scroll and The Ken are experimenting with various approaches—including hard paywall, freemium model, and pay-per-use model—to generate a steady revenue stream for the media outlets. By shifting the focus from click-driven metrics to content quality, subscription models incentivize the production of high-quality, trustworthy journalism and infotainment content. Nonetheless, the transition is not without hurdles; deeply ingrained habits of free news consumption, price sensitivity among Indian consumers, and a cultural reluctance to pay for digital content vis-a-vis traditional modes of subscription pose significant challenges. The chapter also touches upon technological advancements

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in digital payments and personalized content curation, which support the model enumerated in the chapter. By analyzing current trends, consumer behavior, and case studies, the chapter assesses the potential of subscription model to secure the long-term sustainability of journalism and infotainment in India's rapidly evolving digital landscape.

Keywords: Media economy, Subscription model, Digital news media, Revenue model, Digital advertising, Freemium model, Pay-per-use model.

Introduction

In today's digital age, news is just a tap away—but behind every clickable headline is a media house struggling to stay afloat. As disrupted by the tech giants, digital advertising revenue is drying up for Indian news platforms. So, they are struggling to survive and are increasingly exploring alternative revenue models to keep the presses running (KPMG, 2020). The rapid expansion of the internet and widespread adoption of smartphones in India has transformed how Indians consume news. As of 2023, India boasts approximately 821 million internet users, with 65% of them accessing news online (Internet and Mobile Association of India, 2023). News is no longer confined to newspaper or TV news bulletins. Audiences now want and consume news updates in real-time, delivered directly to their smartphone or computer screens. This shift has presented both opportunities and challenges for news organizations, with the most pressing challenge being financial sustainability.

Traditionally, Indian news media thrived on advertisement-driven revenue model. The formula is simple: publish content, attract readers, and sell their attention to advertisers. However, in the age of internet, the model has been challenged significantly. Global tech giants like Google and Facebook now dominate the digital advertising space, leaving only a small slice of the revenue pie for traditional media outlets. As these tech platforms absorb the lion's share of ad revenue through programmatic and hyper-targeted advertising, digital news organizations across the globe are forced to rethink their business strategies (Chyi & Ng, 2020; Kohli-Khandekar, 2025; KPMG, 2020). The result is a growing interest in the subscription model, where revenue is generated directly from audiences rather than advertisers. (Simon & Graves,

2019) Indian digital news publishers are no exception in this scenario (Aneez et al., 2019; KPMG, 2020).

The merits of the subscription model extend well beyond just the financial stability for media organizations, offering advantages for audiences also. By directly supporting journalism through subscriptions, audiences can contribute to the creation of high-quality, trustworthy content. Thus, subscription model offers a promising alternative to ad-based revenue, allowing media organizations to prioritize content over metrics. When revenue depends on subscriptions, the focus shifts from generating clicks to creating meaningful content that audiences are willing to pay for. This is particularly crucial in a market often flooded with clickbait and sensational content. A robust subscription base not only offers financial stability but also supports quality journalism by reducing sole reliance on external advertisers (Borchgrevink-Brækhus & Moe, 2023; Dutta, 2023).

However, implementing a subscription model in a country like India is not without challenges. For years, Indian audiences have enjoyed free access to online news. Over time, this habit has become deeply ingrained. As a result, many are hesitant to pay for digital news, especially when free alternatives are just a search away. The willingness to pay is often influenced by factors such as the perceived quality of journalism, the exclusivity of content, and the trustworthiness of the media outlet. (Kantar India, & Google, 2023) Furthermore, India's diverse economic landscape, with a large segment of the population being highly price-sensitive, adds to the complexity of convincing audiences to subscribe. (Kübler et al., 2018).

Despite these challenges, there are encouraging signs. A growing number of digital news platforms in India, including The Hindu, The Times of India, NDTV, The Ken, and Scroll have adopted subscription models with varying degrees of success (Aneez et al., 2019; KPMG, 2020). These platforms have experimented with different models, from freemium and metered paywalls to membership-based approaches. Their experiences provide valuable insights into what works and what doesn't in the Indian market.

This chapter explores the rise of subscription models in Indian digital news media, analyzing current trends, challenges, and the sustainability of this approach. It digs deep into the evolution of revenue models in Indian media, and audience attitude towards the subscription model. Ultimately, the chapter aims to assess whether subscription models can offer a viable path toward sustaining journalism in the digital age in India.

The Evolution of Revenue Models in Indian News Media

Indian news media primarily relied on an advertisement-driven revenue model. While subscription fees contributed to revenue, advertising sales remained the primary source of income for both newspapers and television networks. This model thrived in a pre-digital era where media-outlets maintained control over their audience and advertisers had limited channels to reach the masses. High circulation numbers and television viewership translated directly into lucrative advertising deals, ensuring a steady flow of revenue for the news media outlets in India.

Hitherto, the digital revolution disrupted this well-established model. The internet opened up a new frontier for news distribution, where content became widely accessible and often free of cost via news portals and social media platforms (Aneez et al., 2019). Many traditional media organizations, eager to capitalize on digital reach, adopted a free-access model backed by digital advertising. Initially, this strategy seemed viable, with digital advertising.

However, the landscape soon shifted as tech giants like Google and Facebook redefined the advertising ecosystem. With advanced data analytics, hyper-targeted advertising solutions, and a huge number of user-base, these platforms became indispensable to advertisers looking for precision and scale in reaching their potential customers. Digital media outlets found themselves competing not just with each other but with global IT-enabled MNCs that could offer unparalleled audience insights and cost-effective ad placements. Consequently, the share of advertising revenue available to traditional media shrank, forcing news organizations to rethink their business models ((Chyi & Ng, 2020; Kohli-Khandekar, 2025).

This financial strain led to an increased focus on generating high web traffic, often giving quality the back seat. These strategies became commonplace, leading to a surge in sensationalism and clickbait content. This scenario perfectly aligns with the saying, “When the product is free, you are the product”, highlighting how advertising-driven models often prioritize user data monetization over content quality. While this approach brought short-term gains to the media outlets, it undermined long-term trust with audiences and did little to secure sustainable revenue (Khawar & Boukes, 2024).

The implementation of subscription models in Western markets makes Indian digital news media think of exploring similar strategies. This inclination towards subscription-based models marks a critical evolution in India’s news media. This reflects a broader global trend of transitioning from ad-reliant frameworks to reader-supported journalism.

The Subscription Model

Subscription model is a business framework wherein customers receive products or avail services on a recurring basis, with payments made at regular intervals (Rappa, 2004). Differing from one-time purchases, subscriptions offer companies a stable and predictable revenue stream, enabling long-term financial planning and reducing dependency on volatile sales cycles. This model is particularly advantageous for consumers, providing convenience and continuous access to services without the need for repeated transactions. Additionally, subscription pricing often proves more economical than purchasing individual products or services over time, enhancing its appeal in various industries (Gassmann et al., 2014).

Originating in the 17th century with German booksellers, the subscription model initially aimed to gauge demand for expensive multi-volume works such as encyclopedias and reference books. This approach quickly gained momentum in the newspaper and magazine industries, where it remains relevant even today. Over time, the model evolved beyond publishing, finding applications in diverse sectors, from software and digital media to consumer goods and internet services (Gassmann et al., 2014; Rappa, 2004).

Modern subscription models often combine free and premium options to attract a large number of audiences, especially in software and content businesses (Rappa, 2004). In the media and entertainment industry, where content is the product, there are few variations of the model. *Soft access* or *freemium model* offers some content for free while reserving premium content and features exclusively for paying subscribers. Free content is ad-enabled here while paid content is ad-free clean experience. This is usage-independent access model. *Metered paywall model* being a usage-dependent access model, allows limited free access to content before requiring a subscription. For example, a user can read 5 free news articles in a month and to read beyond this they need to pay or subscribe. *Hard access model* provides stricter access to content, with all content behind a paywall. *Pay-per-use* model requires users to make a small payment or 'micropayment' for each piece of paid content they consume. This approach benefits consumers by allowing them to pay only for content that interests them. On the other hand, pay-per-use model gives the content providers the advantage of lowering the entry barrier, attracting more potential users (Rußell et al., 2020).

The Growth of Subscription Models in India

The adoption of subscription models in digital news media has gained substantial momentum globally, with nearly 47% of digital news outlets in the United States and Europe implementing some form of paywall by 2019 (Simon & Graves, 2019). As advertising revenues declined due to competition from tech giants like Google and Facebook, news organizations increasingly turned to subscription models as a sustainable revenue strategy (Chyi & Ng, 2020; Newman, 2019).

In India, a similar trend is emerging as digital news publishers explore subscription-based revenue models to enhance financial stability. Established newspapers such as The Times of India, The Hindu, Indian Express, Hindustan Times, and Business Standard have introduced subscription fees for their digital editions or e-papers. The Hindu implements a complete hard paywall strategy, keeping the e-paper and all their website content behind paywall. Digital publications like Scroll and The Ken have adopted subscription-based approaches, reflecting a

broader shift towards reader-supported journalism. Many outlets are also experimenting with hybrid models. For example, NDTV and Times of India mobile apps offer subscription-based option, providing a mix of free and premium content (Aneez et al., 2019; KPMG, 2020). Publications such as The Wire, The Print, The Quint, and Newslaundry¹ use a freemium model, offering free access to general content while reserving premium features for paying subscribers. The Times of India also launched TOI+ for “exclusive stories, ePaper, market tools & other benefits”².

This growing adoption of subscription models in Indian digital news sector indicates an evolving media landscape, where news publishers are increasingly aligning with global trends to diversify revenue streams and reduce dependency on advertising. By adopting varied subscription strategies—from hard paywalls to freemium models—Indian media is gradually building a more sustainable financial model, mirroring the global shift towards audience-supported journalism.

The reason behind the shift towards subscription models in India’s digital news sector is the shrinking ad revenue. Google, Meta (Facebook’s parent company), and JioStar are the largest media and entertainment companies in India. Bennet, Colleman and company, The Times of India’s parent company comes only in fourth position. The Indian media ecosystem has evolved, with Google and Meta dominating the ad-driven and user-generated content segments. These tech giants reach nearly all of India’s 523 million online users through platforms like social media, short-form videos, search engines, and influencer content. Traditional media houses, which produce original series, films, music, and news, struggle to compete. Despite creating much of the content that powers these platforms, mainstream media sees limited financial gains. In 2023, Google and Meta captured over 95% of the Rs 64,500 crore spent on digital media in India, representing more than a quarter of the total media and entertainment market, highlighting the challenge for news organizations (and other

1 Information on these sites’ subscription models can be found on their respective websites: The Wire <https://support.thewire.in>, The Print <https://theprint.in/subscribe>, The Quint <https://www.thequint.com/plan-selection>, and Newslaundry <https://www.newslaundry.com/subscription>.

2 Information on this can be found on the website: <https://buy.indiatimes.com/TOI/plans>

media organizations) dependent on advertising revenue (Kohli-Khandekar, 2025).

India's digital payment revolution has also contributed significantly to the growth of subscription models. The advent of seamless online payment options, particularly through the Unified Payments Interface (UPI), has transformed purchasing digital subscriptions into a hassle-free experience. With just a few clicks, consumers can complete transactions securely and swiftly, reducing friction in the payment process. This ease of payment not only enhances the convenience for users but also supports businesses in building a stable and predictable revenue stream through subscriptions (PwC, 2020, 2023).

Indian Audience Willingness to Pay for Online News

While the subscription model in digital news media is gaining traction globally, concerns remain about the willingness of audiences to pay for online news. Research studies indicate that audiences are generally willing to pay for high-quality, exclusive content, particularly from legacy media outlets (Goyanes et al., 2018; Simon & Graves, 2019). In Indian context, by 2023, only one in seven Indian online news consumers expressed a willingness to pay for news, with quality journalism, fact-checking, and exclusive information being key motivators for those who do (Kantar India & Google, 2023).

Research on Indian audience attitudes towards paying for online news remains limited. Tewari (2015) suggested a general reluctance to pay for digital content, a finding supported by the Kantar India and Google (2023) report, which showed that only 15% of Indian online news consumers are willing to subscribe. The Indian Digital News Report (Aneez et al., 2019) highlighted some potential, with 39% of English-speaking respondents indicating they were 'somewhat likely' to pay and 9% 'very likely' to pay. However, this sample represents only a small subset of India's diverse media landscape, leaving gaps in understanding the broader

Challenges to the Sustainability of Subscription Model in India

The primary challenge to the sustainability of subscription models in India, as well as globally, is the audience's reluctance to pay

for online news. Globally, while some studies indicate a growing willingness among consumers to pay for high-quality, exclusive content, there are still many obstacles. Many users still expect free access to online news, find payment processes inconvenient, or perceive online news as inferior to traditional print media (Borchgrevink-Brækhus & Moe, 2023; Chyi & Ng, 2020).

In India, these challenges are particularly acute. As previously noted, only a small fraction of Indian online news consumers are willing to pay for digital news content. The price sensitivity of the Indian market, coupled with the nation's status as a lower-middle-income economy (Metreau et al., 2024), intensifies the challenge. Studies highlight that India's consumers often prefer free content and are influenced by pricing strategies, as seen in the entertainment subscription market (Anand, 2020; Kübler et al., 2018). For the same reason, OTT giants like Netflix introduced an ad-supported, lower-cost subscription plan in India to better cater to the Indian market (Livemint, 2024).

World Bank ranks India as a lower-middle-income economy (Metreau et al., 2024). That means Indians have lower purchasing power. This further compound the challenge for adoption of subscription model, specifically in digital news scenario. Consequently, it is difficult for consumers to justify spending on digital news subscriptions, especially when free alternatives are readily available.

Moreover, cultural habits also play a role in this reluctance to pay. Many Indians have become accustomed to free news access, both online and through traditional media. This ingrained expectation makes it difficult for news organizations to convince consumers to transition to paid models. The vast availability of free news through social media, aggregator apps, and search engines adds another layer of complexity (Aneez et al., 2019; Khatri, 2021).

The Future of Subscription Model in Indian Digital News Landscape

The future of subscription models in India's digital news sector is cautiously optimistic. There are numerous challenges for digital news publishers to overcome to make this new revenue model sustainable. But certainly, there is potential. The Indian Digital News Report (Aneez et al., 2019) points to the potential growth

of the subscription model only if the publishers deliver diverse and high-quality content. The Google-Kantar India report (2023) also supports this. The report says that quality, exclusive content could be key to increase of subscription model in Indian digital news.

Studies have indicated that subscription models offer a promising revenue stream for digital-native media. However, the success of this approach hinges not only on business strategy but also on understanding audience behavior, particularly the willingness to pay for digital news. While many organizations have adopted paywalls, signaling a shift in the industry, the broader readiness of Indian audiences to embrace paid models remains unclear (Khan and Haneef, 2023; Mudgal and Rana, 2022).

To ensure sustainability, Indian media organizations need to navigate through multiple challenges. It is not just about delivering exclusive content, but also about building consumer trust, simplifying subscription buying processes, and demonstrating the distinct value of paid journalism over free alternatives. Moreover, leveraging data analytics to offer personalized content could enhance engagement, encouraging long-term subscriber loyalty. For instance, The Times of India demonstrated how leveraging data-driven personalized content strategies can boost subscription revenue, showing significant growth by enhancing user engagement and retention (Economic Times, 2022).

The path forward for subscription models in India will require a thoughtful blend of quality journalism, understanding audience attitude, right pricing, and effective audience engagement strategies. If media organizations can address these challenges, they may not only secure financial stability but also contribute to the broader evolution of audience-supported journalism in India's dynamic digital landscape.

Conclusions

The rise of subscription models in India's digital news sector reflects a global shift towards sustainable revenue strategies amidst declining advertising revenues. While challenges remain, including audience reluctance to pay, price sensitivity, and strong competition from free content, the potential for growth is undeniable. By delivering high-quality, exclusive

content, and personalized experiences, media organizations can build consumer trust and drive subscriptions. The adoption stories of Indian platforms like The Times of India, The Hindu, and Newslaundry demonstrate that subscription models can offer a viable path to financial stability. Ultimately, the key to sustainability lies in adapting global best practices, understanding local audience behavior, and innovating continuously to meet evolving consumer expectations in India's digital landscape.

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Problems Associated with the Performance of Rural Credit: A Case Study of South Tripura and Gomati District of Tripura

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Abstract

Agriculture functions as the principal sustenance source for most Indian residents after sixty years of aggressive industrialization. The agriculture sector and its allied industries remain the prime force that generates income for India so agriculture functions as the fundamental support behind the country. The recent Indian agriculture field experienced significant development through green revolution despite its restricted application to specific agricultural regions and production types. The lack of credit facility remains a major issue among the many limitations and problems present in Indian agriculture. The rural population especially those belonging to weaker sections cannot achieve better living conditions due to limited access to credit facilities. The organized segment of cooperative banks and non-banking financial companies along with regional rural banks and commercial banks

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should create proper procedures and processes to address rural credit accessibility issues. Credit interventions in rural areas serve as a crucial agricultural component and constitute an efficient mechanism for economic development throughout rural territories. Rural credit acts as a means for millions of rural Indians to sustain their livelihood because they lack alternative sources of income.

Keywords: Agriculture, Rural Credit, Economic Development, Livelihood Sustainability, Financial Accessibility.

Introduction

Indian people depend mainly on farming activities as their primary source of income although the country pursued rigorous industrialization during the past six decades. Agriculture together with its related fields produces the highest contribution to India's national income thus it functions as the core element supporting our country. During the recent decades India's agricultural development through green revolution successfully expanded into restricted crop sectors and confined geographical domains. The primary agricultural sector faces several limitations in India while credit facility shortages stand as a fundamental problem among them. Rural population particularly the weaker section fails to grow and prosper because they lack access to credit facilities. Continuous agricultural development depends heavily on adequate credit resources. The rural development process gets faster because of the important role that credit plays as a catalyst. The credit sector in India provides uninterrupted service to excluded populations to help them improve their living conditions and economic status. The rural credit system in India operates through two separate segments which are the unorganized money lender, trader and input supplier segment and the organized segment of cooperative banks and regional rural banks alongside commercial banks and non-banking financial companies. The paper follows this scenario to develop eight sections. Present serves as the first section followed by a review of literature as the second segment. The third segment of this paper presents details about research objectives together with methodology and statistical tracking tools. The fourth and fifth sections thoroughly explain both economical and social standing of surveyed households and credit access conditions for

low-income groups within the rural area. Section six deals with finding while section seven brings discussion about the findings. The eighth section contains the closing remark.

Review of Literature

Various researchers continue to investigate how rural credit affects agricultural productivity together with rural development but they identify multiple ongoing obstacles to its most valuable performance. According to Brandt and Otzen (2007) faulty credit delivery processes alongside ineffective intervention strategies restrict the effectiveness of rural credit programs in poverty-oriented agriculture and rural development.

Nath and Das (2017a) conducted research on rural credit performance in South Tripura District to identify obstacles including insufficient funding amounts, complex procedures alongside delayed credit disbursement that restricts agricultural production and generates lower income. The accessibility of rural credit for weaker sections remains limited according to Nath and Das (2017b) because institutions face problems with poor efficiency and high collateral restrictions. Mishra (2005) examined the relationship between rural financing institutions and farm income along with productivity in Orissa yet discovered that although farms perform better with credit yet bureaucratic matters and fund misuse together with poor financial literacy cause the system to operate sub optimally.

Nath (2016) evaluates the fisheries sector in North East India by identifying inadequate microfinance opportunities together with excessive interest rates as major barriers for small-scale fishers to utilize credit benefits. Nath and his colleagues report in their 2013 study about microfinance possibilities in Arunachal Pradesh fishery while revealing that operational issues and insufficient awareness obstruct credit penetration. Nath and Nochi (2014) together with Nochi and Nath (2014) evaluated North Eastern India microfinance while identifying structural and regulatory barriers that impede MFIs from achieving financial inclusion success. According to their research findings better policies should be established to solve credit accessibility problems.

Ray (2007) conducted research on the crop pattern patterns of West Bengal farmers based on their access to credit rights and

discovered that credit limitations limit their usage of better farming methods which creates inefficient agricultural outputs. The study by Sharma, Gupta and Bala (2007) explores hill farm credit in Himachal Pradesh to reveal that small farmers face barriers from expensive credit services combined with limited formal banking institutions and strict credit requirements. Shivamagi (2000) explains why rural banking requires reform because current policies do not solve the financial requirements of rural loan seekers. This research demonstrates that rural credit policies would work better when they offer adaptable conditions and reduced rates of interest along with streamlined lending procedures.

The reviewed research emphasizes how rural credit continues to face fundamental performance issues because of bureaucratic complications, excessive interest rates and mandatory asset guarantees and deficient financial capability. Equitable economic growth and effective rural credit utilization demand targeted policy reforms alongside enhanced financial mechanisms to tackle existing problems.

Objectives, Research Methodology and Statistical Tools

The present study is based on the two important objectives i.e., (1) to understand the socio-economic characteristics of the surveyed beneficiaries in the study area and (2) to understand the accessibility of rural credit in the study area among the weaker section of the society.

The present study is an empirical in nature based on primary data. The data was collected with the help of detailed questioners based on multi-stage sampling technique. In the first stage, South Tripura and Gomati district was selected by purposive sampling. In the second stage, four blocks namely Belonia, Bakafa & Rupaichari under South Tripura district and Tepania, Kakraban, Amarpur & Silachhari under Gomati district were selected by purposive sampling on the basis of extent of operation of rural credit pattern. In the third stage, five villages were selected from each block, villages with large number of scheduled tribe and scheduled cast population. Finally households were selected on the basis of composition of population in various villages. The total sample sizes selected was 250 households.

Tabular and graphical methods are used to present the field data. Percentages are used to illustrate the scenario regarding the socio-economic indicators and the performance of rural credit in the study area.

Socio-economic Status of Surveyed Households

This section deals with socio-economic characteristics of the surveyed households of the study area. Socio-economic characteristics like gender, category, age, educational level, family size, economic group were discussed.

The heads of the households surveyed were categorized on the basis of gender i.e. male and female.

Table 1: Gender-wise Distribution of surveyed Beneficiary

Gender	Percentage
Male	87
Female	13

Source: Primary Data.

Table 1 shows that the most of the surveyed households i.e., 87 percent were male and rest 13 percent were found to be female.

From the survey it was found that 33 percent respondents were from Schedule Tribe category, 38 percent were from Schedule Caste, Other Backward Class comprises of 22 percent of population and rest 7 percent were found to be General. So it was found that a majority i.e., 71 percent of the respondents were from weaker or marginalized section of the society. The details are given in Table 2.

Table 2: Category-wise Distribution of the Surveyed Beneficiary

Category	Percentage
Schedule Tribe	33
Schedule Cast	38
Other Backward Class	22
General	7

Source: Primary Data.

Beneficiary under the study area were grouped into five age group, i.e., (a) 30 years or less, (b) 31-40 years, (c) 41-50 years, (d) 51-60 years and (e) more than 60 years.

Table 3: Age-wise Distribution of the Surveyed Beneficiary

Age Group	Percentage
30 years or less	10
31-40 years	42
41-50 years	29
51-60 years	10
More than 60 years	9

Source: Primary Data.

Table 3 shows that 10 percent of the beneficiary belongs to very young age group i.e., 30 years or less. 42 percent of the beneficiary belonged to the young age group i.e., 31-40 years followed by 29 percent in matured age group i.e., 41-50 years. 10 percent belongs to 51-60 age group and only 9 percent of the beneficiary surveyed belongs to more than 60 years age group.

Education level of the surveyed beneficiary were analysed since it affects the knowledge level as well as exposure to the rules and regulations related to the credit market and banking institution etc. In order to examine the educational level of the beneficiary under the study area they are divided into four groups (a) illiterates, (b) primary, (c) Secondary and (d) higher secondary and above. It is clear that overall education level of the surveyed beneficiary is low. The number of illiterates were 11 percent. It was also observe that only 42 percent of the surveyed beneficiary were having educational level of higher secondary and above. The details are given in Table 4.

Table 4: Educational Level of the Surveyed Beneficiary

Educational Level	Percentage
Illitrates	11
Primary	19
Secondary	28
Higher Secondary and above	42

Source: Primary Data.

As agriculture was found to be the main source of livelihood in the study area, the family size was examined to have an idea about the supply of human labours. A comparatively large family is expected to take care of agriculture and allied activities through family labour. The beneficiary family was divided into three categories according to the number of family members, i.e., (a) small family (less than 5 members), (b) medium (5-8 members) and (c) large (more than 8 members). The details are given in following table.

Table 5: Family Size of Surveyed Beneficiary

Family Size	Percentage
Small (less than 5 members)	58
Medium (5-8 members)	30
Large (More than 8 members)	12

Source: Primary Data.

From Table 5, it was found that 58 percent of the surveyed households had small family, 30 percent had medium family and 12 percent has large family.

It was found that 58 percent of the surveyed household belongs to BPL (Below Poverty Line) category and rest 42 percent is from APL (Above Poverty Line) as given in Table 6. It shows that the economic condition of the surveyed area is not good.

Table 6: Distribution of Surveyed Beneficiary on Economic Group

Economic Group	Percentage
Below Poverty Line (BPL)	58
Above Poverty Line (APL)	42

Source: Primary Data.

Accessibility of Rural Credit in the Study Area among the Weaker Section of the Society

In this particular section an attempt is made to analyse the performance of rural credit in the study area. First the surveyed households were divided into two categories: (a) households having bank account and (b) households without account in any types of bank. It was found that 90 percent of the surveyed

households are having bank account and rest 10 percent doesn't have account in any bank, as shown in Table 7.

Table 7: Number of Surveyed Households with Bank Account

Bank Account Status	Percentage
Household with Bank Account	90
Household without Bank Account	10

Source: Primary Data.

It was interesting to observe that 65 percent of the surveyed households having bank account in the Nationalized Bank as shown in Table 8.

Table 8: Distribution of Surveyed Beneficiary as per Bank's Type

Types of Bank Account	Percentage
Nationalized Bank	65
Others	35

Source: Primary Data.

It shows that the outreach of the rural bank in the surveyed area is very limited, although the survey is done in the rural area of the State. It was further found that 30 percent of the surveyed households having account in Tripura Gramin Bank (rural bank), 20 percent in United Bank of India, 18 percent in the State Bank of India, 15 percent each in UCO Bank and Canara Bank. The details are given in Table 9.

Table 9: Distribution of Surveyed Beneficiary as per Bank's Name

Bank Name	Percentage
Tripura Gramin Bank	30
United Bank of India	20
State Bank of India	18
UCO Bank	15
Canara Bank	15
Others	2

Source: Primary Data.

It was found that 90 percent of the beneficiary have borrowed loan in last five years and rest 10 percent didn't borrow in last five years, as shown in the table below:

Table 10: Classification of surveyed Households on the basis of Loan

Status of Loan	Percentage
Borrowed Loan (in last 5 years)	90
Didn't Borrowed Loan (in last 5 years)	10

Source: Primary Data.

Table 11: Classification of Surveyed Households on the basis of Source of Loan

Source of Loan	Percentage
Bank	16
MFI	59
Co-operative	4
Money Lenders	13
Relatives	6
Others	2

Source: Primary Data.

If we classify the beneficiary on the basis of the source of loan or borrowing we found that majority (59 percent) of the surveyed household borrow from MFI (Micro Finance Institutions) followed by loans from various banks (16 percent). It was interesting to observe that a good number of surveyed borrow form village money lenders i.e., unorganized segment (13 percent). The details are given in Table 11.

Table 12: Classification of Surveyed Households on the Basis of Amount of Loan (In INR)

Amount of Loan	Percentage
Less than 50,000	75
50,000 – 1,00,000	18
More than 1,00,000	7

Source: Primary Data.

From Table 12 it was found that 75 percent of the surveyed households borrow an amount of less than INR 50,000, 18 percent of surveyed households taken loan between INR 50,000 - INR 1,00,000 and only 7 percent of surveyed households taken loan more than INR 1,00,000. So it is clear that most of the surveyed households were small borrower of loan i.e., less than INR 50,000.

It was also found that 23 percent of borrowing is for agriculture, 10 percent is for fishery related activity, 28 percent for personal task and 12 percent for animal husbandry. The detail is given in Table 13.

Table 13: Classification of Purpose of Borrowing

Purpose of Borrowing	Percentage
Agriculture	23
Animal Husbandary	12
Fishery	10
Personal	28
Others	27

Source: Primary Data.

Table 14: Classification on the Basis of Distance of Bank from Household

Distance of Bank	Percentage
Less than 5 km.	5
5-10 km.	75
More than 10 Km	20

Source: Primary Data.

From the survey it was found that there were only 5 percent households having banking services in the rage of less than 5 km. Majority of the surveyed household i.e., 75 percent having banking services in the rage of 5-10 km and rest 20 percent of respondents have to travel more than 10 km to avail the basic banking facility. The details are given in Table 14.

It was observed from the survey that 80 percent of the respondents have said that they faced problems in the official procedures for borrowing loan. The details are given in table (Table 15) below:

Table 15: Problems Faced by the Borrowers while getting Loan form Bank

Problem faced for getting the Loan	Percentage
Yes	80
No	20

Source: Primary Data.

Findings

Rural inhabitants in the study area base their activities on farm work along with manual labor together with modest businesses. The research outcomes demonstrate a cardinal socio-economic arrangement because male-led households make up 87% of the analyzed families yet female-led families represent only 13%. A study reveals that 71% of the social group members belong to disadvantaged categories including 38% Scheduled Castes, 33% Scheduled Tribes and 22% Other Backward Classes. A significant portion of surveyed respondents (42%) belong to the prime working age of 31-40 years and 29% reside between 41-50 years as the communities demonstrate their economic battle. The educational situation poses difficulties because 11% of the respondents were illiterate yet 42% had obtained higher secondary education or more but lacked sufficient understanding of financial systems.

The study region demonstrates family clusters consisting of less than five persons making up 58% of the total households because agriculture functions as the main economic activity. The economic standing of surveyed households shows distressing data since 58% of them fell into the Below Poverty Line category (BPL). The banking system reached a wide range of people since 90% of households maintained bank accounts despite facing financial difficulties. According to data only 65% of account holders received services from nationalized banks yet 30% used Tripura Gramin bank and another 20% relied on United Bank of India. The practice of borrowing proved prevalent among the loan respondents since 90% of them took loans in the last five years. People tend to borrow from Microfinance Institutions than traditional banks since Microfinance Institutions have better accessibility (59% versus 16%). Government efforts to improve formal loans have not prevented 13% of families from getting

funds from traditional village money lenders because they remain financially excluded. Most loans distributed by MFIs had modest values because 75% of borrowers received amounts below INR 50,000 which they used primarily for personal (28%) agricultural (23%) and animal husbandry (12%) needs.

The data revealed extensive challenges regarding rural banking services since 5% of households accessed banks at 5 km distance while 75% needed to travel 5-10 km and another 20% had to go beyond that range. Official banking procedures together with documentation requirements along with loan delays made the entire process challenging for 80% of borrowers due to extensive distances between establishment. Research results show that rural domestic operations face financial limitations while demonstrating needs for enhancements in credit opportunities and financial education to support marginalized social groups.

Discussion

The organised segment comprised of cooperative banks and regional rural banks and commercial banks and non-banking financial firms should create proper systems for solving rural loan access challenges. Banking and nonbanking institutions must make the establishment of rural branches their main organizational objective. Agriculture along with its related industries reinforce the economy yet require focus as the main beneficiary of loan facilities. Every village should receive proper financial literacy outreach programs at regular intervals.

Conclusion

Rural credit plays an essential role as agricultural input while serving as a development tool that benefits rural economic growth. Through this tool rural Indians obtain sustainable income because they lack other sources of money. The present study demonstrates that renovated banking services have failed to achieve substantial progress in providing rural agricultural groups with accessible credit. The agricultural market forces rural farmers to take credit from unorganized money lenders particularly the village money lenders through high-interest rates than commercial financial institutions. Organized financial institutions need to create adaptable products and services which will suit the various needs of rural households. Financial institutions need to develop

practical educational strategies that will overcome education-level obstacles faced by their potential borrowers. A further simplification process needs to be implemented for lending procedures.

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Effects of Climate Change on Orange Cultivation: A Case Study of Orange Cultivators of Jatinga Village, Dima Hasao

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Abstract

It has been a common expression of the dwellers of Jatinga that 'mother nature has always been kind to Jatinga', a village of Dima Hasao District of Assam, known for its favourable climate and thriving orange production. But the changing climatic condition including fluctuation of rainfall, wind pattern, and temperature, frequent occurrence of wind storms and landslides faded the glory and fame of the village and put forth a challenge to the cultivators. Through qualitative case studies, this study gathered insights from six orange cultivators in Jatinga to understand how orange production has evolved in the midst of increasing climate change. Respondents reported shortened fruiting periods, slow growth, and alterations in fruit size and shape, leading to an overall decline both in quantity and quality over a period of time. The economic strain caused by reduced productivity has also raise concerns about their food security. The study also highlights the need for community

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resilience in dealing with the issue suggesting three key strategies including fostering collective action, strengthening knowledge networks, and enhancing social ties. These approaches could help farmers adapt to changing conditions thereby sustaining their livelihoods

Keywords: Climate change, Orange, Jatinga, community resilience, livelihood.

Introduction

Climate change is an undeniable reality that is no longer uncertain 'but an unavoidable event that is damaging the planet at an alarming pace, an outcome of over 200 years of excessive greenhouse gas (GHG) emissions from fossil fuel combustion in energy generation, transport and industry, deforestation, and intensive agriculture' (Kais & Islam, 2016). The consequences are far reaching, posing significant risks to human societies through shifts in temperatures, precipitation patterns, sea-level rise, disruption in seasonal cycles, and increased occurrence of floods, cyclones, wildfires, and other natural disasters. This has a long-lasting impact on various sector of which agriculture is one. It has been estimated that for every degree Celsius rise in the global mean temperature, the global rice yield drops by an average of 3.7%, the global maize yield drops by 4.5%, the global wheat yield drops by 2.9%, and the global soybean yield drops by 3.1% (Zhao et al., 2017). Future projections suggest that by the year 2100, the global temperature may experience an increase ranging from 1.8 to 4.0°C, with a heightened likelihood of more significant increases occurring over terrestrial and arid areas. Furthermore, the anticipated rise in sea levels is expected to exacerbate the vulnerability of agricultural lands situated in coastal zones to flooding (Wheeler & Von Braun, 2013). In the Asian continent, it has been documented that the productivity of rice and wheat has experienced a reduction since the 1980s, approximately amounting to an 8% decrease for each incremental rise in temperature of 1°C (Bandara & Cai, 2014). It has been projected that the summer temperature in some parts of this region is likely to increase by '3°C–6°C at a scenario of 4°C global warming and by 2°C at a scenario of 2°C global warming by 2100' (Bandara & Cai, 2014). Such prediction indicates major crop productivity will decline in South Asian countries. This presents a considerable risk to a

region wherein more than 70% of the population (approximately 1.1 billion individuals) resides in rural localities predominantly engaged in agricultural activities and constitutes nearly 75% of the poor within the region. (Bandara & Cai, 2014).

In India, climate events like the droughts of 2002 and 2009 caused a big drop in food grain production. The extreme cold wave in the winter of 2002-2003 hurt fruit trees like mango, litchi, wheat, and mustard, as well as boro rice in Assam. And the sudden rise in temperature in March 2004 caused wheat crops to mature early, apples to flower early, and rapeseed and mustard plants to fail to make pods, and productivity losses of 10-25% in crops like onion, garlic, broccoli, carrot, radish, and turnip (Singh, 2016). Similarly, the 2012–2013 drought in nine villages in Maharashtra's Jalna district, as studied by Vedeld et al. (2014), also resulted in most farmers experiencing significant crop losses averaging around 50% to 60%. Zhao et al. (2017) estimated that an average of 3.8% of rice crops in India decline for each 1° increase in temperature. It has been predicted that variations in temperature, solar radiation, and precipitation will significantly impact agricultural productivity of both crops and livestock in India (Khan et al., 2009), with states such as Rajasthan, Gujarat, Maharashtra, Madhya Pradesh, Karnataka, and Uttar Pradesh being categorized as highly and extremely vulnerable from the years 2021 to 2050 (Rao et al., 2013).

In view of the climatic impact on agricultural production on a global, regional, and national scale, this study shifts its focus to the local scale, specifically Jatinga, a village historically known for its robust orange production. The objective is to understand how orange cultivation has evolved over a period of time in the face of increasing climate change. To achieve this, the study brings in case studies from six orange producers in the village, taking into account their perspective of climate change and its effects on orange production over the years. This localised approach provides valuable insights into the real-time challenges faced by farmers.

History of climate change in Jatinga Village (source: Jatinga centennial souvenir, 1905-2005, village council secretary)

Jatinga village is located in Dima Hasao district of Assam and was founded in 1905. It covers an area of 48 sq km and approximately

440 households and 2500 people. The main occupation of the village comes from jhum cultivation, with 90% of major production being oranges, pineapples, ginger, and culantro.

Jatinga village has long been recognized for its favourable climate, characterised by fog and light rainfall from August to October, followed by clear skies in November. The village soil is also found to be fertile, enriched with all the thirteen elements of plant nutrients, making it highly suitable for agriculture. Orange cultivation in the village began in 1914 as the village's second major economic crop after betel vine. It quickly flourished with remarkable yield, with a single tree producing an average of 2000 and 2500 oranges, and each family cultivating an average of 1000 trees. This success earned Jatinga widespread recognition for its orange production. By the 1930s the village had become so prosperous that the villagers even donated money to the Britishers during the war, as there was a good relation between them. In fact, it was regarded as the richest village in Asia during those days. They also contributed to the infrastructure development, particularly the market shed in Haflong town.

However, after 1947, the orchards were devastated by Dieback (locally known as KjutBainong), leaving only 10% of the orchard to survive. Farmers then relocated their plantations to a different land, which initially restored productivity and economic prosperity. In 1952, when the district council was formed, the people of Jatinga contributed a huge sum of money during its initial state of formation. In the 1970s and 80s, the villagers could supply all requirements to the fruit factory set up at the outskirts of the village. This indicates the prosperity of the village's orange production. Unfortunately, in 1990, the disease resurfaced, once again threatening orange cultivation, and the economic condition of the people was greatly affected as a result. In 2000, experienced farmers, in collaboration with the field officers of the agriculture department of the government, once again conducted a trial, and it brought promising results. In the year 2004-05, the Horticulture Technology Mission provided financial support for a 25-hectare expansion of orange plantations, making another effort to restore Jatinga's reputation as a thriving centre for orange farming.

Methodology

This study was guided by two key research questions: “What significance does orange production hold for the community?” and “In what way has climate change affected orange production in the village?” Six participants engaged with orange cultivation were selected purposively based on their long-standing relationship with orange farming, allowing for a detailed understanding of trends and changes over the years. Through detailed narratives and firsthand accounts, the study aimed to capture the complexity of the issue beyond statistical trends. By documenting the experiences of orange farmers and highlighting their voices, the study aspires to guide researchers, policymakers, and stakeholders in crafting effective, context-specific interventions to address the issue.

Results

Case 1. An orange cultivator with nearly 20 years of experience described the fruit as an integral part of the village’s identity, also serving as a primary source of income and playing a crucial role in household food security. Reflecting on production trends, the participant recalled a time when orange yields were consistently high, and fruit quality was remarkable and famous. However, in recent years, both have shown a marked decline. Regarding climate change, the participant expressed their opinion that there have been changes in the environment, specifically rising temperatures, unseasonal rain, and stronger wind patterns, along with an increase in extreme weather events such as storms and landslides. They even attributed the decrease in fruit production to these conditions. The participants also reported that fruiting periods had become shorter and growth had slowed, leading to a simultaneous decline in both yield and quality. The participant also perceived a significant decline in household income as a result of poor production in the current day. The respondent also reported a feeling of anxiety about the future of the village’s agricultural production and disappointment; however, they expressed a willingness to explore alternative strategies to sustain their livelihood.

Case 2. Another respondent with 5-10 years of experience perceived orange cultivation to be a primary source of income for

their household, critical for their food security. Additionally, it also acts as a key source of employment for local labourers, making it an essential aspect of the community's economic fabric. Similar to the first case, the respondent recalled a period when orange production was consistently high both in quantity and quality. However, in recent years, they have observed a noticeable decline and attributed the issue to the stronger wind patterns and frequent occurrence of landslides and storms that have been frequently evident in recent years. Beyond declining yields, the respondent also observed noticeable changes in the fruit characteristics, specifically in size and shape, alongside a significant slowdown in tree growth. The participant also expressed deep concern about the possibility of losing their livelihood due to these climatic changes, as they have noticed a substantial decrease in their income in recent years, making it difficult to afford food. As a result, their family has faced instances where they had to reduce meal portions or eat less than they desired. This highlights the economic strain caused by the declining orange yield.

Case 3. The third respondent, with almost 10 years of experience in orange cultivation, sees orange farming as a source of pride for the village, taking into account the reputation of good quality it carries through the years and its significant yield. According to the participant, oranges have historically symbolized the village's prosperity. However, they expressed concern that both the quality and quantity of production have declined over time. The respondent reported experiencing significant climatic changes, including an increase in the frequency of landslides and hailstorms in recent years. They also perceived a change in the rain and wind patterns, which have resulted in delayed flowering, a shortened fruiting period, and slow growth. Additionally, the frequent occurrence of hailstorm caused extensive damage to the fruit; further exacerbating the decline in yield and quality. For this respondent, orange cultivation serves both as a primary and a secondary source of income. However, as climate-related challenges continue to disrupt production; their financial stability is impacted, raising concerns about the future of their livelihood.

Case 4. The fourth respondent, who has been cultivating oranges for more than 20 years, considers orange farming their primary source of income. Reflecting on the past years, they recalled

that orange production was once marked by both high quality and substantial yields. However, over time, they have observed a significant decline in both aspects, with the quantity of production decreasing drastically in recent years. The respondent attributed this decline to multiple climate events, including the rise in temperature, increased pest infestation, and decreasing soil fertility as major challenges. Additionally, extreme weather events such as storms, unseasonal rains, and strong winds have further disrupted production. These climatic changes have led to an early yet shortened fruiting period. While the quality at times still remains good, the overall quantity has become insufficient, directly impacting their income. The respondent expressed deep concern over their financial stability, stating that the reduced harvest has significantly affected their ability to meet daily expenses, recalling instances when their household struggled to afford enough food, sometimes having to limit their meals due to this constraint.

Case 5. A female cultivator with almost 20 years of experience perceives orange farming as an integral part of her village's identity and prosperity. She recalls that orange production historically maintained a high yield, which served as a marker of economic stability and a key source of employment for local labourers. However, over the years, she has witnessed significant changes that have affected cultivation patterns and overall productivity. The respondent reported a steady rise in temperature, increased pest infestation, and a decrease in soil fertility. In recent years, extreme climate events such as unseasonal rains, strong winds, delayed monsoons, and changes in soil moisture levels have become more frequent. These changes have led to a substantial decline in the quantity of production, though she noted that the fruit's quality has remained relatively stable. She also observed noticeable changes in the fruit's growth cycle, including early fruiting and fast growth yet a shortened fruiting period. Additionally, she pointed out that the size and shape of the fruit have altered over time. There is a sense of fear expressed by the respondent that she might lose their livelihood source as climate change worsens. Like many others, she also faces financial hardship, often struggling to afford sufficient food due to reduced income from declining orange yields.

Case 6. A cultivator of around 6 years of experience reflected on the history of orange cultivation in Jatinga village, recalling how it was successfully cultivated, prospering the people and the community. Given their limited experience, the respondent found it difficult to differentiate production trends over the year of their practice. However, they expressed dissatisfaction with the quality. Despite acknowledging the experience of less rainfall and changes in the wind pattern, the respondent is unable to determine whether these factors are responsible for the crop's poor quality. However, there is a slow growth process observed by them. The respondent also raises a concern about their financial stability if the quality of the fruit is not improving. And although income has been affected, the respondent stated that their household has not yet faced any sort of food insecurity. Furthermore, they are willing to opt for alternative crops or income strategies.

Discussion and Recommendation

Findings from the case studies indicate a clear pattern of climate-induced challenges affecting orange cultivators in Jatinga village. Across all six cases, respondents acknowledge the thriving orange cultivation in the past. However, a consistent decline in quantity and, in some cases, the quality of orange production was pointed out in the present times. There is also a consensus in almost all the cases concerning the climate change conditions that are prevalent in the present times, including rising temperatures, changing wind and rain patterns, frequent storms and landslides, and pest infestations, and an agreement that these environmental shifts have led to shorter fruiting periods, slower tree growth, and alterations in fruit size and shape. These findings align with Khan et al.'s (2009) prediction of the effects climate change conditions, including changes in temperature and precipitation, will have on crop productivity.

A significant concern across all cases is the economic strain placed on cultivators due to reduced yields. As orange cultivation is a primary source of income for many, its decline directly impacts food security. Several respondents reported struggling to afford food, with some even reducing their meal portions. A village that once was thriving economically because of orange production now faces challenges to afford food. This finding is not something

new. There exists empirical evidence indicating economic losses attributable to climate change, as demonstrated in the works of Vedeld et al. (2014) and Rahman et al. (2021).

While there is a sense of willingness to explore alternative strategies, the situation indicates the need for community resiliency. Infact, Magis (2010) widely acknowledges community resiliency as an important indicator of social sustainability. Kais & Islam (2016) further assert that only a resilient community can successfully overcome stresses including climate disruptions. Amoak et al. (2022) further underscore that the persistent ramifications of climate change are 'expected to intensify in the face of minimal adaptation capacities in poor-resource contexts. 'This necessitates the need to foster a resilient community for the cause. The following section provides some of the strategies that have helped build community resilience against climate-induced challenges.

One way is through fostering collective action. It was observed in a study how locally organised farmer groups in Kenya and eastern Uganda engaged in collective efforts in response to the challenges of negative crop productivity they encounter as a result of erratic rainfall and land degradation that further exacerbates the looming crisis of hunger and starvation in the region. These groups come together and take action in response to the ill climate-driven unproductivity. Their collective action revolves around pooling of resources, group savings and loans, knowledge production, and networking with external entities. In resource pooling, group members shared essential agricultural inputs such as seeds and tools. They also organised labour pooling, where they worked on each other's plots and engaged in joint cultivation of group plots. Further, they collectively engage in the construction and management of shared infrastructure, including water ponds for irrigation, drainage systems for wetland cultivation, soil and water conservation structures, manure production, and fish farming facilities. Group members also contribute to a collective fund, from which they can access low-interest loans. The fund's savings are also distributed among the members annually and are used for activities, particularly those related to food production and off-farm diversification, as well as for essential services like health checkups, medication, etc. Additionally, the savings also serve as a safety net, helping

members avoid selling household assets during emergencies. The group members also exchange and produce knowledge through exchanging insights on various agricultural practices, techniques, and approaches. They also engage in joint experimentation and innovation, as well as share market information, enabling them to make informed economic decisions and therefore improve productivity. Furthermore, the group networks and collaborates with external members by conducting trainings to share farming techniques and natural resource management practices within the community. All these components contribute to building a more sustainable, cooperative approach that helps them cope and withstand the climate-induced challenges they encounter (Andersson & Gabriellsson, 2012). Given the absence of farmers's association in the village, this study strongly recommends implementing this strategy.

Secondly, community resilience against climate-induced challenges can be achieved through fostering knowledge networks. It was observed that knowledge networks where communities have access to information about climate extreme events, access to weather forecasts, rain forecasts in advance, and information related to fertilisers, agrochemicals, seeds, etc. have a positive influence on the uptake of all adaptation practices as they facilitates the implementation of sustainable farming techniques, including soil conservation measures like micro-catchments and terracing, the introduction of high-yielding and more resistant crop varieties, the introduction of drought-tolerant, disease-resistant, and pest-resistant crop varieties, the management of pests and crops, and the adoption of using fertilisers and agrochemicals, each of which is an option or approach for coping with the effects of climate change (De Jalon et al., 2018). Such agricultural knowledge networks play a critical role in fostering innovation in practices, such as the introduction of novel crops, alternative methodologies, advanced planting techniques, contemporary pest management strategies—including the employment of innovative pesticides—non-chemical weed control methods like plastic mulch, chemical applications such as hormones to promote flowering, the utilization of soil enhancers, the deployment of heavy machinery, or sophisticated water management practices including novel irrigation systems, as

well as seedling development within the agricultural framework, particularly observable in smallholder farming communities across the Caribbean region (Saint Ville et al., 2016). Furthermore, these platforms offer opportunities to sustain the production of traditional varieties by preserving traditional knowledge of seed saving and processing, thereby increasing production (Helicke, 2019).

Another way that can help build community resilience is through fostering social ties among community members. This is critical during or after shocks. It was observed that shocks like drought negatively affect food consumption levels in Ethiopian rural households. However, the help and support households receive from individuals they are close to, consider important, or can rely on during hardships, both within and outside the village, smooths the food consumption level during such situations (Wossen et al., 2016). It appears that these ties can increase chances for individuals who are vulnerable to food to ask for assistance. Similarly, it enables individuals and communities to band together in response to the impact of floods in Australia (Boon, 2014). In the context of Jatinga village, this practice can help people address food insecurity issues during landslides and storms.

Conclusion

The data presented regarding the adverse effects of climate change on the production of oranges indicates a significant imperative to implement measures aimed at mitigating negative climatic influences and to bolster this vital source of livelihood for the community. The Intergovernmental Panel on Climate Change (IPCC) has additionally cautioned that 'Any further delay in concerted anticipatory global action on adaptation and mitigation will miss a brief and rapidly closing window of opportunity to secure a liveable and sustainable future for all (IPCC2022, as stated in Amoak et al., 2022).' This underscores the urgency of the need. While multiple initiatives have been taken to combat climate change issues, the study acknowledges the existence of a small but dedicated group that facilitates collective action, knowledge networks, and social support and celebrates their critical role in the matter. Moreover, it underscores the necessity for governments to recognize these local social institutions for

their essential contributions to the establishment of resilient communities and the mitigation of climate-induced challenges. Furthermore, there is a pressing need for policies that facilitate the integration and amplification of these isolated initiatives to disseminate and scale locally validated strategies and practices.

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Youth Unemployment in India: Navigating the Workforce Dynamics

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Abstract

India has a huge youth population and is currently in a situation where demographic advantage can make a huge difference in economic growth if harnessed effectively. However, the country has been facing significant challenges in providing adequate employment opportunities for its upcoming younger workforce. The government has been constantly vocal on skill-based learning, and steps have been taken to formalise employment and skill-based learning, however, a large number of individuals have been employed or engaged in the informal sector. Also, the rise in higher education enrolment has not necessarily been capable enough of translating into better job prospects, leading to an increasing number of overqualified yet unemployed youth. There can be many factors responsible for this.

Therefore, in an attempt to understand the complex work dynamics of youth employment in India, this paper takes a closer look at the overall employment scenario in India while trying to bring light to the issues in youth employment and work preference of Indian youths entering

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the workforce. It also offers a set of suggestions aimed at creating newer opportunities for young people, improving the entrepreneurship ecosystem, and fostering an environment where socio-cultural barriers are eliminated.

Keywords: *Employment, Economy, Youth Unemployment, Workforce Dynamics.*

1. Introduction:

India is the most populated country in the world, with a population of 1.4 billion, out of which more than 27.2 % of the population are youth. (MoSPI, 2024). The economy is rising and has achieved, on average, more than a 6% growth rate in the past four decades. Currently, the country is the fifth-largest economy, in terms of dollars, and is expected to grow at a significant pace in the coming years. Earnest and Young predicted that the country is on the verge of becoming the third-largest economy by 2027. The average age of the country, in 2025, stands at 29.5 years, compared to China's 39 and Japan's 49.5. The number of children peaked in 2007 and is gradually declining. The number of 15-year-olds peaked in the year 2011 and is also gradually declining. The country being so rich in human resources has an upper hand when it comes to its overall development with suitable plans and policies. But sadly, looking at the current scenario of employment in the country, one may say that the efforts of the government have not been on par with the powerhouse India possesses regarding its human resources.

This human resource is ready to get into the workforce in the days to come, and therefore, it puts pressure on the government and business organizations to use it. As it is a human aspect, there always exists a complexity that needs to be understood. The creation of employment opportunities is a mammoth task that ensures economic growth and social stability in addition to boosting consumer spending in India. The workforce of the country is divided into three major categories: the agriculture and allied sector, the industrial sector, and the service sector. The agriculture sector is the least contributor in terms of GDP in the country, but contrarily, this is the sector that employs more than 45% of the workforce (Press Information Bureau, 2025).

The country has also seen a structural transformation of employment from the agriculture and allied sectors to the industry and service sectors in recent years. It is also observed that most of the rural workers employed in India are either self-employed or casual labourers. These labourers constantly migrate from their state to another place in search of employment. The workers are mostly from the states of Bihar, Jharkhand, Uttar Pradesh, Orissa, and West Bengal. The country supports this migration with suitable road and rail connections. This informal sector is the backbone of the country when it comes to employment. The country has been emphasizing formalizing this workforce with the introduction of Goods and Service Tax, digitalization of financial initiatives, and state support in the field of agriculture and allied services. Different schemes have also been launched by the government in support of people engaged in agriculture, such as the Kisan Credit Card, Fasal Beema Yojana, Gram Sadak Yojana, Seechai Yojana, etc.

The country also sees a gender gap in employment, with women mostly receiving the blows with huge disparities in the wages paid (MoSPI, 2024). Additionally, the country is struggling significantly to create jobs for the youth. People engaged in jobs are working either out of the subject they studied or are under-employed or simply unemployed to a large extent. This, in turn, leads people to accept jobs that don't fit their qualifications. The positive picture here, is that, the gender disparities are slowly decreasing as the Labor Force Participation among females grew by one percent and stood at around 24 percent in 2022 due to supportive measures (Press Information Bureau, 2025). However, the availability is still scarce, looking into the massive population of the country. There has always been a link between education and employment levels going hand in hand, or at least there are notions of this belief. It is seen that both education and training contribute to wage and earning differentials in an economy (Srivastava, 2008; Mincer, 1974). This Paper, therefore, attempts to understand the current scenario associating employment in India, with an emphasis on understanding the issues in youth employment, employment trends, and factors affecting youth employment.

1.2 Issues in Youth Employment and Work Preferences:

Youth unemployment refers to people in the workforce aged 15 to 24 without a job and actively seeking jobs (United Nations, 2003). Generally, the youth unemployment rate is always higher than the adult unemployment rate, and the Indian workforce is the largest one in the world. The youth unemployment rate was around 10 percent in 2005, although they have not consistently reported numbers to the United Nations throughout time. India, as a country, hasn't been able to make good use of this demographic dividend. For the past decades, youth unemployment has been around 22 percent (IHD&ILO, 2024).

Even with a significant rise in employment levels in the recent past, youth employment is much likely to be in the vulnerable (Informal) occupations. Youth earnings are far lower than the adult population in the country. There has only been a marginal gap between youth earnings from wage employment and self-employment, indicating poor conditions for work. It is also observed that the youths have been relatively less engaged in the agriculture sector, and as youths grow and acquire knowledge, it is less likely that they will be further engaged in the agriculture activities. They prefer non-farm activities or other tertiary activities such as trade, hotels and restaurants, public administration, health and education, transportation, storage, and communication.

In recent years, there has been a rise in young individuals continuing their education and obtaining more degrees merely because there are no job possibilities available. On the contrary, educated youths have experienced much higher levels of unemployment. Youth unemployment is directly proportional to the level of education, with the highest rates among those with a graduate degree or higher. In 2022, the unemployment rate was 18.4 percent among people with at least a higher secondary education and 29.1 percent among people with at least a degree or above, but only 3.4 percent among people who do not know how to read or write.

Regarding women, India has a significant number of young women of young women neither in education nor working or training. It is seen that Young women are less likely than young men to be employed, educated, or trained. This is especially true

for older youths. In 2022, women were about five times more likely than men to be unemployed (48.4% vs. 9.8%), accounting for approximately 95% of the youth population (IHD & ILO, 2024).

Another important factor to be considered is technological change, which has actively affected the demand for skills and certain employment types. The youths are mostly engaged in high to medium-skill jobs compared to the older people. This high demand is from manufacturing jobs. Youths not at par with the technology are automatically eliminated.

India has a significant amount of educated youths that are not in the working population. When asked about their choices, it is seen that many of them are inclined towards securing government jobs, despite the fact that there opportunities are very limited. This has created an unemployment that is not accounted as they still fall under the category of “students”. A striking example of this trend can be seen in states like Bihar and Uttar Pradesh, where significantly qualified individuals, including PhD holders, are applying for jobs of lower grades, such as peons or clerks. These positions require a mere basic education, often not more than 10th grade.

Recently, as a case in point, the SSC MTS 2023 recruitment examination was held in Uttar Pradesh. According to The Economic Times (2024), a whopping 5.5 million applicants competed for Group D jobs, of which, many were engineers, MBAs, and even Civil Judges. These roles are far below their educational qualifications. This reflects a deep-rooted preference for job security over skill development or entrepreneurship. This trend also highlights a concerning mindset: Instead of upskilling or exploring alternative career paths, many young people are choosing to remain unemployed, dedicating years to preparing for government exams. This not only pulls back their potential but also exacerbates the employment crisis in the country.

Another important phenomenon observed in India's employment landscape shows the challenges faced by the youths joining private companies. This is the problem of overtime and high-pressure work environments. India is one of the most overworked labour forces globally, with an average work week of nearly 47 Hours. On average, an Indian IT graduate gets far lesser remuneration than

his counterpart abroad for the same set of jobs. The demanding nature of jobs in India with peanuts in the name of salaries, toxic work culture, and extreme hierarchies lead to disputes within the organisations. Often, the organisation does not give importance to it due to the fact that there is an oversupply of job seekers due to the increasing population entering the workforce. This creates negative emotions and fear when it comes to jobs among the youths, making them not choose the privates and rather prepare for the government sector with a relatively easy work environment. This again creates a rise in the unemployment levels in the country.

1.3 Employment Trends and Labour Market Indicators for Indian Youths

The employment condition in the country can be understood with the help of the Annual Employment and Unemployment Report, published by the Periodic Labour Force Survey (PLFS), where a comprehensive analysis of India's labour market is done. The report focuses on key indicators such as the Labour Force Participation Rate (LFPR), Workers' Population Ratio (WPR) and Employment Rate (UR). For this study, the indicators associated with the youth population have been taken into account, comprising the age group of 15-29 years old. These have been discussed as under:

A. Labour Force Participation Rate (LFPR):

The Labour Force Participation Rate (LFPR) measures the proportion of the population who are either working or actively looking for work. The following table (Table 1.1) shows the Labour Force Participation Rate for persons based on usual status (ps+ss) for a period of three years, obtained from PLFS 2021-22, PLFS 2022-23 and PLFS 2023-24 at the all-India level.

The data shows that for the population range of 15-29, the LFPR of males remains relatively higher across all the years and sectors than that of females. Male participation saw a slight decrease from 65.5% in 2022-23 to 65.1% in 23.24 in rural areas. Female participation remains much lower, though it has seen an improvement from 22.3% in 2021-22 to 30.8% in 2023-24 in rural areas and from 20.2% to 23.8% in urban areas. The overall

LFPR (male + female) has increased from 42.6% to 46.5%, with improvements noticeable in the rural areas.

The male LFPR, higher than that of the female, indicates an increasing rise in male participation in economic activities. This deeply rooted gender disparity may be due to reasons like limited opportunities for females, lack of work-life balance, socio-cultural barriers, and education levels, among others.

Table 1.1. Labour Force Participation Rate (LFPR) of youth of age 15-29

Labour Force Participation Rate (LFPR) of youth of age 15-29									
	PLFS (2023-2024)			PLFS(2022-23)			PLFS(2021-22)		
Sector	Male	Female	Person	Male	Female	Person	Male	Female	Person
Rural	65.1	30.8	48.1	65.5	25.8	45.9	62.1	22.3	42.6
Urban	59.9	23.8	42.6	58.4	20.8	40.7	58.9	20.2	40.6
Rural + Urban	63.5	28.8	46.5	63.5	24.5	44.5	61.2	21.7	42

Source: Annual Report, PLFS, 2023-24

B. Workers' Population Ratio (WPR):

The Worker Population Ratio (WPR) measures the percentage of people aged 15 years and above that are actually working out of the total population of that age group. The difference between LFPR and WPR is that the former includes people looking for work also; however, WPR only focuses on the current working population. It simply measures the employment levels in the population. The following table (Table 1.2) shows the Workers Population Ratio (WPR) for persons based on usual status (ps + ss) for a period of three years, obtained from PLFS 2021-22, PLFS 2022-23 and PLFS 2023-24 at the all India level.

The data shows that for the population range of 15-29, the WPR of males remains relatively higher across all the years and sectors than that of females. In rural areas, in 2023-24, 59.5% of males were in the workforce compared to 28.3% of females. Female participation saw a rise to 28.3% in 2023-24 from 20.4% in 2021-22. In urban areas, the WPR for males is 52.2% and for females is 19%, with a slight improvement from the previous year. Overall,

the WPR stands at 47.4% in 2023-24, showing a significant improvement in the participation rate over the previous years.

The gap between the male and female WPR is significant, showing a persistent gender imbalance in the employment levels. This may be again due to several factors like stagnant opportunities available for women, lack of suitable jobs, and concentration of women working population in a small range of activities such as hospitality, education, health, among others.

Table 1.2. Workers Population Ratio (WPR) of youth of age 15-29

Workers Population Ratio (WPR) of youth of age 15-29									
	PLFS (2023-2024)			PLFS(2022-23)			PLFS(2021-22)		
Sector	Male	Female	Person	Male	Female	Person	Male	Female	Person
Rural	59.5	28.3	44	60.1	23.9	42.3	55	20.4	38
Urban	52.2	19	36.3	50.3	16.3	34.3	49.6	15.9	33.6
Rural + Urban	57.3	25.6	41.7	57.3	21.9	40.1	53.5	19.1	36.8

Source: Annual Report, PLFS, 2023-24

C. Unemployment Rate (UR):

Unemployment Rate (UR) refers to the percentage of the population in the workforce (either working or actively seeking work) who are unemployed. It shows the percentage of people wanting to work but not finding work. Even the slightest decline in the overall unemployment rate suggests improvements in the availability of jobs. The following table (Table 1.3) shows the Workers Population Ratio (UR) for persons based on usual status (ps + ss) for a period of three years, obtained from PLFS 2021-22, PLFS 2022-23 and PLFS 2023-24 at the all India level.

The data shows that for the population range of 15-29, from 11.4% in 2021-22 to 8.7% in 2023-24, the UR of male Rural has seen a significant improvement. However, marginal improvement is seen in females, with 8.5% in 2021-22 to 8.2% in 2023-24. Similarly, in the urban areas, the UR of the male improved from 15.8% to 12.8%, and the UR of the female improved from 21.6% to 20.1%. It is also noticed that the UR of females in urban areas is higher than that of males, showing lesser opportunities for females in urban

areas. Overall, the unemployment rate for youth is 10.2% in 2023-24, with females having a higher rate (11%) than males (9.8%).

The persistent gap in female unemployment may indicate precarious employment opportunities for women. This structural gender based disparity also indicates that women want to work, however, they face obstacles in finding jobs. The small decline in the overall unemployment rate may also indicate a recovery in low-paying or informal jobs.

Table 1.3: Unemployment Rate (UR) of youth of age 15-29

Unemployment Rate (UR) of youth of age 15-29									
	PLFS (2023-2024)			PLFS(2022-23)			PLFS(2021-22)		
Sector	Male	Female	Person	Male	Female	Person	Male	Female	Person
Rural	8.7	8.2	8.5	8.3	7.4	8	11.4	8.5	10.6
Urban	12.8	20.1	14.7	13.8	21.7	15.7	15.8	21.6	17.2
Rural + Urban	9.8	11	10.2	9.7	10.6	10	12.6	11.8	12.4

Source: Annual Report, PLFS, 2023-24

1.4. Factors Affecting Youth Unemployment:

Some of the factors associated with youth unemployment in India are attributed to the following reasons as suggested by the Institute for Human Development and International Labour Organization. (2024):

- 1. Inability to reap demographic dividend:** India is still on track to benefit from the demographic dividend. India's population is largely of working age, and the country is predicted to benefit from demographic dividends throughout the next decade. Every year, approximately 7-8 million young people enter the labour force, with the potential to provide a demographic dividend for India. However, the country is at an inflection moment since the youth population, at 27%. The country's inability to cope with this huge population is one of the factors of increasing youth unemployment.
- 2. Low youth labour force participation rate:** This is mostly caused by the educational attainment of young people and young people who are not employed. Youth labor market engagement has been significantly lower than that of adults

and has been dropping since 2009, mostly because of their education attainment. It is also crucial to understand that the rise in unemployment from 2012 to 2019 can be attributed to a percentage of young people—primarily women—who choose not to enter the workforce.

3. **Participation in family work:** Young people's activity levels show that family work is primarily done for free. Adolescents are more likely than adults to work in traditional jobs, and they are less likely to work for themselves. The percentage of underpaid family workers among self-employed individuals is significantly higher for young people than for adults.
4. **Lesser participation in the agriculture sector and gender disparities:** Although there is a clear gender imbalance, the structural characteristics of young employment point to a lower representation in the agriculture sector. Youth participation in agriculture has decreased compared to industry and services. Youth are more likely to participate in non-farm activities as they get older and more educated. Compared to young males, young women are more likely to work in agriculture. There is a significant gender disparity in favor of men in tertiary sector activities like trade, lodging and dining, public administration, healthcare and education, transportation, storage, and communication. Youths left agriculture significantly more frequently than adults did between 2000 and 2019, however, the COVID-19 epidemic halted the long-term trend of young job growth in non-farm sectors.
5. **Quality of youth employment:** The sectors and areas where the youth are employed are vulnerable in nature. They are generally employed in lower-quality jobs than adults. While youth wages tend to increase with age and experience, they remain lower than adults across all employment categories. It is also seen that there is a very minimum gap between daily wage employment and self-employment, indicating unsuitable conditions for work.
6. **Youth not engaged in any economic activities:** India has a significant amount of population of youths and especially women who are neither in education, employment, nor

training (NEET). An approximate figure is that one-third of youths fall into this category. This has been increasing since the year 2000. Young women are more likely to be NEET than young men. In 2022, data showed that women, in proportion, are more than five times NEET than their male counterparts (48.4 percent versus 9 percent). The reason for this includes youths preparing for government exams in India, higher expectations, inavailability of skill training institutes, remoteness of location and unwillingness to join any of the work force.

7. **Changing pattern due to the COVID-19 Pandemic:** During the COVID-19 epidemic, young labor market statistics deteriorated, especially during peak periods. Following the lockdowns, the young labor market started improving. However, this movement resulted in increased labor force participation, mostly in low-quality jobs. During the pandemic, self-employment increased significantly, while household unpaid work, particularly among rural women, remained the poorest kind of employment. There was also a decrease in the number of young people with regular paying occupations. Also, young people increased their work in subsistence agriculture and low-wage construction while remaining relatively constant in the industrial sector.
8. **Regional differences:** States in India differ in their regional employment trends and results for young people. States differ from one another in terms of employment outcomes and potential demographic advantage because they are in distinct stages of demographic transition. Youths do poorly in Bihar, Jharkhand, Uttar Pradesh, Rajasthan, Madhya Pradesh, Assam, Odisha, and West Bengal, all of which also have a significant potential demographic advantage.

1.5 Conclusion and Suggestions

The economic benefit that arises by using the working age population in India is immense if harnessed effectively with the help of comprehensive policies and plans. However, the current employment scenario presents a complex picture with high rates of unemployment among the youths with fewer job opportunities

available and significant gaps between educational qualifications and job opportunities.

The informal sector of the country still continues to be the backbone of the country, but the low-paying jobs do not attract the educated youths, especially in the agriculture sector. Gender based differences have also been a major socio-cultural factor that has exacerbated the employment crisis. The government have come up with various programmes for enhancing the skills of the youth, however, accountability is often seen missing. During these strenuous situations, encouragement of self-employment, promotion of startup-ecosystem and creation of incentives for innovation play a crucial role in tackling the problem more sustainably. Also, addressing gender disparities, improving working conditions and ensuring better wages for young workers is crucial in creating a more inclusive labour market. Additionally, special emphasis is to be given on technology leverage so that the skill gaps can be addressed.

Finally, unemployment in India is a huge task for the government and people of India, and with the age of digitalisation, people have to be on par with the technology in demand. Multidimensional efforts has to be made, such as more efforts should be put into creating access to the new age technology, especially in rural areas, integrating educational reforms, gender inclusive jobs, skill enhancement, ease of doing business, real-time monitoring of labour data, access to financial institutions and intermediaries, more efforts should be put on manufacturing sector, and accountability should be set at the grassroots level with the implementation of government programmes. By empowering its youth, India can reap its demographic dividend and attain economic growth with social equity.

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From Canvas to Commerce: The Role of Marketing in Selling Contemporary Art

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Abstract

The intersection of art and commerce has long been a subject of debate, but in today's market-driven world, marketing plays a pivotal role in shaping the visibility and value of contemporary art. This article explores how marketing strategies, branding, and digital advertising influence the perception and sales of contemporary artworks. It examines how artists, galleries, and auction houses leverage social media, influencer partnerships, and traditional advertising to expand their reach and attract collectors. Furthermore, the article considers the ethical implications of commercializing art, addressing the balance between artistic integrity and market demand. By analyzing industry trends, this study highlights the evolving dynamics of art promotion and the growing impact of advertising in transforming creative works from mere canvases into coveted commercial assets.

Keywords: Contemporary Art, Commercialization, Marketing Strategies, branding and Digital Advertising.

Introduction:

In today's fast-paced, hyper-connected world, the relationship between contemporary art and commerce has become

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increasingly complex. The once-distinct boundaries between artistic expression and market-driven forces have blurred, making the commercialization of art a central topic in discussions surrounding its value and accessibility. While artists have always sought ways to make their work visible, the rise of strategic marketing, branding, and digital advertising has dramatically shifted the way art is consumed, valued, and sold. Modern art no longer relies solely on traditional gallery exhibitions or auction houses to reach its audience. Instead, it now thrives on platforms that allow for global reach, leveraging digital tools and targeted advertising to engage a wider and more diverse audience.

This shift has given rise to new opportunities, but also challenges, for artists, collectors, and institutions alike. Marketing strategies have become an essential part of an artist's success, with branding playing a pivotal role in shaping an artist's public image and appeal. Whether through social media campaigns, influencer collaborations, or tailored digital advertisements, art is being sold in ways that would have been unimaginable just a few decades ago. For collectors and buyers, the act of purchasing art has evolved into an experience that extends beyond the canvas, where branding, trends, and the perception of an artist's cultural relevance hold significant weight.

This article delves into the ways in which advertising and digital marketing are not merely supplementary tools, but core drivers in the contemporary art market. It highlights how the commercialization of art has reshaped its landscape, offering insight into the power of strategic marketing, branding, and digital advertising in navigating the modern art world. Ultimately, it examines how this shift has altered the very definition of what it means to be an artist in the 21st century, where creativity and commerce are inextricably linked in a global marketplace.

The Contemporary Art Market

The contemporary art market has transformed into a dynamic and multifaceted ecosystem, shaped by various key players, including galleries, auction houses, online marketplaces, and an increasing reliance on advertising. Unlike the traditional art market, where artists depended primarily on patronage, institutional support, and gallery representation to build their reputations, today's

art world operates in a more decentralized and digitally driven manner. The rise of digital media has significantly altered the way art is promoted, bought, and sold, allowing for a more diverse range of artists to gain exposure and access a global audience.

One of the most profound shifts in the contemporary art market is the role of technology in democratizing access to art. Online platforms such as Artsy, Saatchi Art, and Instagram have become powerful tools for artists, enabling them to showcase their work beyond geographical limitations. Social media platforms, in particular, serve as direct channels of communication between artists and collectors, fostering a more interactive and immediate art-buying experience. As a result, artists are no longer solely dependent on traditional galleries for recognition; instead, they can cultivate their own audiences and establish their brand identities through digital engagement.

Despite these advancements, traditional structures such as high-profile auction houses—Art Bull, SaffronArt, AstaGuru, Pundole's, Sotheby's, Christie's, and Phillips—still play a pivotal role in shaping market trends and valuations. The record-breaking sales of blue-chip contemporary artists, such as Anish Kapoor, Bharti Kher, Jitish Kallat, Shilpa Gupta, Jeff Koons, Thukral & Tagra, Banksy, and Yayoi Kusama, and many more underscore the continued influence of these institutions. At the same time, the market for emerging and mid-career artists is becoming increasingly competitive, pushing them to adopt new marketing techniques to gain visibility.

In this evolving landscape, advertising has emerged as a crucial force in the commercialization of contemporary art. Strategic marketing efforts help artists and galleries build a distinct brand identity, connect with specific buyer demographics, and create a sense of desirability around their works. The art world has embraced digital advertising methods such as targeted social media campaigns, influencer collaborations, and experiential marketing initiatives—ranging from immersive exhibitions to virtual reality showcases. These strategies not only generate buzz but also position contemporary art within a broader commercial framework, making it more accessible to new collectors and audiences.

As competition within the art world intensifies, the necessity of advertising in promoting and selling contemporary art becomes more evident. Whether through traditional advertising avenues or cutting-edge digital marketing techniques, the ability to craft compelling narratives around artworks and artists is key to success in today's market. The intersection of art and commerce has never been more pronounced, as artists and institutions alike navigate the challenges and opportunities presented by an increasingly digital and globalized art economy.

The advent of Pop Art revolutionized the history of art itself. King of Pop Andy Warhol operated his art practice like a business, creating works inspired by the popular commercial products of his age and churning out screen prints like a business. It is no coincidence that Warhol named his New York studio the 'Factory,' and employed assistants there to help him produce more and more sellable art for ever-growing prices. As Warhol himself once remarked: "Being good in business is the most fascinating kind of art. Making money is art and working is art and good business is the best art."

The art world in its entirety was monetized like never before in the 60s. Gallerist and art dealer Leo Castelli, for example, represented his artists like a business investor. By providing his artists with support and funding, Castelli propelled the likes of Warhol to international acclaim and spurred the value growth of their works during their lifetimes—something rarely achieved previously in art history.

The 60s was, therefore, not only the age of the blockbuster artist but also of blockbuster art sales. From this decade onwards, art was considered a legitimate 'investment asset.' The line linking art to capitalism was thus inscribed in indelible ink—never to be erased. (Erin-Atlanta Argun - 2025)

Role of Advertising in Promoting Artists and Artworks

Advertising plays a pivotal role in promoting artists and their artworks by bridging the gap between creators and potential buyers in an increasingly competitive and digitalized art market. Through strategic marketing efforts, artists can establish a strong personal brand, differentiate themselves from others, and cultivate a loyal following. Social media advertising, influencer

partnerships, and targeted digital campaigns allow artists to reach collectors, curators, and art enthusiasts beyond traditional gallery spaces, expanding their audience on a global scale. Online platforms such as Instagram, Facebook, and TikTok have transformed into virtual art galleries, where artists can showcase their works, share their creative processes, and engage with potential buyers in real time.

Additionally, experiential marketing—such as interactive exhibitions, pop-up galleries, and virtual reality showcases—creates immersive experiences that enhance audience engagement and drive interest in an artist's work. These innovative approaches make art more accessible and foster deeper emotional connections between the audience and the artwork, leading to increased appreciation and sales. Auction houses and galleries also leverage advertising to generate anticipation around high-profile sales, using teaser campaigns, exclusive previews, and editorial content to enhance an artwork's desirability and perceived value.

Moreover, collaborations with brands and luxury industries further amplify an artist's reach, positioning their work within the broader landscape of fashion, design, and lifestyle. Limited-edition prints, merchandise, and high-profile sponsorships turn art into a commercial entity, increasing visibility and financial success. By employing these strategies, advertising not only boosts an artist's public recognition but also helps shape their market perception, ultimately influencing demand, pricing, and long-term commercial success in the contemporary art world.

The Evolution of Art Marketing

Art marketing has transformed significantly over time, shifting from traditional patronage and gallery representation to a dynamic, commercialized industry. In the past, artists relied on royal commissions, church sponsorships, and exclusive collectors. The rise of galleries and art dealers in the 19th and 20th centuries expanded opportunities for artists, introducing structured sales channels.

With the digital age, art marketing has become more direct and accessible, leveraging online platforms, social media, and influencer endorsements. Contemporary artists now use branding, collaborations, and immersive experiences to engage buyers.

Advertising plays a crucial role in this evolution, helping artists reach global audiences and positioning art as both a cultural and commercial commodity. Key aspects that define the evolution of modern art marketing strategies (Dmytro Akimov – 2023).

i) Traditional methods:

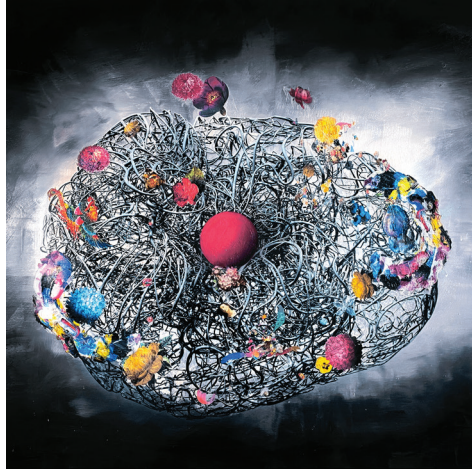
Before the digital era, artists and galleries relied heavily on traditional methods to promote and sell contemporary art. Word-of-mouth played a crucial role, with collectors, critics, and art enthusiasts recommending works to their networks. Gallery promotions, including exclusive exhibitions and private viewings, helped establish an artist's reputation and attract serious buyers. Art fairs provided a platform for artists and galleries to showcase their work to a wider audience, offering direct engagement with collectors, curators, and industry professionals. While these methods remain relevant, they are now often supplemented by digital marketing strategies to reach a broader global audience.

ii) Digital marketing and online sales platforms:

Digital marketing has democratized the art world, allowing both established and emerging artists to reach a vast audience without the gatekeeping of traditional galleries. Platforms like Instagram, YouTube, and Pinterest, etc. have become visual storefronts where artists can showcase their work, interact with collectors, and build a personal brand. Some key aspects of digital marketing that have fueled the contemporary art industry include:

- (a) **Social Media & Branding:** Artists like Banksy, Beeple, and even Indian contemporary artists like **Raghava KK** and **Jiten Thukral & Sumir Tagra** have mastered social media to reach millions, sometimes even without the support of galleries. Instagram, in particular, has transformed into an artist's portfolio, where hashtags and reels can bring in international buyers overnight. For instance, In 2021, Indian artist Raghava KK created *La Petite Mort*, a unique artwork that combined both physical and digital elements (phygital). It was auctioned by Sotheby's and sold for an impressive \$94,500, making him one of the first Indian artists to use Artificial Intelligence (AI) in art. Raghava worked with neuroscientist Abhijeet Satani, data scientist Harshit Agrawal, and material scientist Ben Tritt to explore how human experiences can be turned into a

commercial product. (Garima Gupta – 2024, Financial Crime Academy - 2024).



Raghava KK, *La Petite Mort* from The Orgasm Project series, 2021. Retrieved from <https://opensea.io/assets/ethereum/0xdd41bb6e672c1c7926bb00e5af85ae394fe63ed8/0> on 06.01.2025

Medium is Phygital NFT (non-fungible token) accompanied by oil on canvas, and the artist stated NFTs are reshaping our creative connection with the internet by allowing digital content to be owned, shared, and preserved forever. As technology merges the physical and digital worlds, it raises big questions about the future—especially as personal experiences become data.

With *La Petite Mort* (the little death), he explored how the most intimate human experience—an orgasm—can be tokenized. He worked with experts to record my brain waves during orgasm, transform them into digital art, create a physical piece with a 3D robotic painter, and mint it as an NFT. This phygital artwork links both physical and digital elements, storing all creative data on the blockchain.

(b) Online Art Marketplaces: Platforms like **Saatchi Art, Artfinder, and Singulart** have created virtual galleries where artists can sell their work globally. In India, websites like **StoryLTD, Mojarto, and ArtZolo** have provided artists with

direct access to collectors, cutting out the middlemen and reducing dependency on physical galleries.

- (c) **NFTs & Blockchain Revolution:** The NFT boom has given digital artists a platform that was previously unimaginable. Artists like **Amrit Pal Singh** and **Vimal Chandran** have gained international recognition through blockchain-based art sales. With platforms like **WazirX NFT Marketplace** and **Foundation**, Indian artists are leveraging technology to commercialize their work in new ways. As an illustration, Amritpal describes his experience, explaining that “The biggest boost I got from NFT was the value added to digital art. Earlier you would only hear about traditional art being auctioned off at such prices. NFTs have made it possible for digital art now to be collected. It has given my work a lot of exposure at a global level. The first artwork holds good value because it’s your first. A lot of collectors want to collect this ‘Genesis piece’. But you have to learn the technology because it will really benefit you. The biggest challenge about NFT is you have to market yourself, you have to brand yourself. The marketplaces don’t necessarily promote artists,” (Amrit Pal Singh – 2021)



Vimal Chandran, from his ‘Folk SciFi’ series. The artwork explores ‘Indo Futurism’, where he has reimagined myths and characters from native folklore in a science fiction environment. Retrieved from <https://vimalchandran.com/> on 05.01.2025.



Amrit Pal Singh, *Toy Faces NFT*

Virtual & Augmented Reality Exhibitions: The COVID-19 pandemic accelerated the adoption of virtual art fairs and online exhibitions. Events like **India Art Fair's Digital Edition** allowed collectors to browse, bid, and buy from the comfort of their homes. Augmented reality (AR) features on platforms like Google Arts & Culture let collectors visualize how a painting would look on their walls before making a purchase. (Beatrix E. M. Habelsberger & Pawan Bhansing – 2021)

Vinay Hegde, Yash Pradhan, Priya Shakti, Sonal Vasave, and Makarand Narkar are versatile Indian artists who have pushed the boundaries of art by blending their talent with emerging scientific technology. For instance, Vinay Hegde's latest innovations include *Cosmic Splash*, *Glow Art*, and *Glue Art*—art forms that seamlessly fuse creativity and fine artistry with technology.



Virtual Reality creation on International Yoga Day by Vinay Hegde
Cosmic Splash by Tilt Brush, retrieved from https://www.youtube.com/watch?v=_QarbqEEpZ8

The Power of Branding and Digital Advertising in the Art Market

Branding is crucial for artists, helping them stand out, build a unique identity, and attract buyers. A strong brand makes an artist's work more recognizable and increases its value. Advertising plays a key role in this process by promoting artwork, sharing the artist's vision, and reaching potential collectors. Using social media, art platforms, and email marketing, artists can boost their visibility and credibility. A consistent style and active engagement with audiences help strengthen their brand and position them in the competitive art market.

Digital advertising and social media have transformed how art is sold. Influencers on platforms like Instagram, TikTok, and YouTube help artists gain exposure by showcasing their work to large audiences. Their endorsements can turn lesser-known artists into popular names. Similarly, art critics and bloggers shape trends by reviewing and analyzing artworks, influencing collectors' opinions. A positive review or social media feature can increase an artist's reputation and market value. Together, influencers and critics create buzz, attract buyers, and help artists succeed in the digital art market. (Dmytro Akimov – 2023)

Galleries, Auction Houses, and Corporate Collaborations in Art Promotion

Galleries, auction houses, and corporate collaborations play a crucial role in promoting artists and increasing their market value. Prestigious auction houses like Sotheby's and Christie's use targeted advertising, exclusive previews, and strategic bidding environments to create excitement and drive up prices. Their branding efforts position artworks as valuable investments, attracting high-profile collectors. Galleries also shape an artist's reputation through curated exhibitions, both physical and digital, that enhance desirability and expand global reach through online catalogs.

Press releases, PR campaigns, and media coverage further amplify an artist's visibility, generating buzz and influencing buyer decisions. At the same time, corporate collaborations have emerged as a powerful promotional tool. Brands partner with artists for limited-edition products, installations, and advertising

campaigns, introducing their work to new audiences. Companies like Louis Vuitton and Red Bull have successfully integrated art into their marketing strategies, offering artists financial support and exposure while enhancing their own brand image.

Together, galleries, auction houses, and corporate sponsorships help artists gain recognition, expand their reach, and elevate their market value, ensuring continued success in the competitive art industry.

Ethical Challenges in Art Advertising and Branding

Art advertising raises important ethical concerns. While marketing helps artists gain recognition, it can also blur the line between true artistic value and commercial hype. Auction houses, galleries, and online platforms often use aggressive tactics to create artificial demand, sometimes inflating prices beyond an artwork's real worth. Social media can further amplify trends, making viral styles more marketable while pushing aside deeper, more experimental works.

The shift from artistic merit to strategic branding has added to these concerns. In the past, success was based on originality and skill, but now branding often takes priority. While this boosts visibility, it can also reduce art to a commodity, valuing popularity over creativity. The key ethical challenge is ensuring that art is appreciated for its true meaning and cultural significance rather than just marketing tactics. Transparency, critical discourse, and responsible promotion are essential to keeping the art world fair and authentic. (Noah G. Tyler – 2023)

The Future of Advertising in the Contemporary Art Market

As technology continues to reshape the art world, advertising strategies are evolving to keep pace with new digital innovations. AI-driven marketing and virtual galleries are emerging as transformative tools, enabling personalized art recommendations, automated audience targeting, and immersive online exhibitions. AI-powered algorithms can analyze user preferences to connect collectors with artists, while virtual and augmented reality experiences allow audiences to explore artworks in digital spaces, making art more accessible worldwide.

Another major shift is the growing influence of NFTs and blockchain technology in digital art sales. These technologies provide artists with new ways to authenticate and monetize their work, eliminating the need for traditional intermediaries like galleries and auction houses. As NFT platforms integrate advanced advertising strategies, such as influencer collaborations and metaverse exhibitions, digital artists are reaching wider audiences and establishing direct connections with collectors.

Looking ahead, advertising will play a crucial role in shaping the next generation of art collectors. With younger, tech-savvy buyers entering the market, social media, AI-driven curation, and blockchain-based provenance tracking will drive engagement and trust in art purchases. The future of art advertising will be defined by personalized digital experiences, decentralization, and innovative promotional strategies, ultimately redefining how art is discovered, marketed, and collected.

Conclusion

In today's art world, contemporary art and commercialization are more interconnected than ever, with marketing strategies playing a vital role in shaping an artist's success. Through branding, digital advertising, and targeted promotions, artists can establish their identity, reach wider audiences, and enhance their market value. Social media, influencer collaborations, email marketing, and corporate sponsorships have become powerful tools in expanding an artist's visibility beyond traditional gallery spaces.

However, the rise of art advertising also presents challenges, particularly in maintaining a balance between artistic expression and commercial promotion. The debate over hype versus genuine artistic value raises ethical concerns, as strategic marketing can sometimes overshadow artistic merit in favor of trends and speculation. While advertising provides artists with unprecedented opportunities, it is crucial to ensure that art remains a form of meaningful expression rather than just a commercial product.

As the art market continues to evolve, advertising will remain a driving force in shaping artistic careers and consumer perceptions. The key to a sustainable future lies in using marketing to support artistic authenticity while embracing the advantages of digital

and commercial platforms to foster creativity, accessibility, and lasting cultural impact.

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Is Women Empowered in India?

Joya Barbhuiya*

Abstract

Through this paper an effort has been made to study the position of women and to find out whether the women in India is empowered by utilizing some measures based on the information from secondary sources. The analysis shows that despite of a number of initiatives undertaken by the government the position of women are comparatively lower as compared to men in India. Gender bias still exists as it has been clearly been seen in case of education as well as employment. Decision making of women in their own house is varied and it depends upon the age, employment and education. It has been found that in equal treatment in matter of gender is still carried on in the society. Beating of women is justified for many in the society even on the perspective of some women in our society itself, even women in many cases they have little say on how to spend the money even for household chores, even gender biasness is noticed in the profession of media where the number of women engagement is seen less as comparative to men. Political Participation too faces similar fate of gender discrimination. By a thorough observation a conclusion has been drawn that only the field of education and employment can lift the women and empowered them to a greater height and this also should be backed by the attitude of the people regarding gender equality.

Keywords: Women Empowerment, Education, Employment, Domestic Violence, Media.

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Introduction

From the past five decades it has been noticed that the procedure of female uplifting process has passes through radical alteration starting from welfare publicize loom to fair play loom. Empowerment predominantly comprises power over wherewithal and beliefs and it implicit the route through which the feeble get superior power over the state of affairs of their existence. Women Empowerment is a budding concept as it shows the way to the women folk for enhancing their self confidence, self love and transforming from the core to fight back in the practical life and hurdles prevalent in our society. The matter of female upliftment is a huge concept and on the similar ground it is imitable as it includes the emotions, growth, and overall development of female folk of all class, caste and community at large. Development of female mass is based upon the women empowerment to a greater extent as development of a female's life in a overall perspective depends upon the development of female both externally such as wellbeing, movement, edification and wakefulness, standing in the kin, taking active part in any decision for the family and in addition at the intensity of refuge and internally as in the area of awaking oneself and enhancing confidence in self. Female upliftment is also defined as Human Development Index was for the very first time brought to light through United Nation Development Programme 1990 which with the passage of time takes the shape of standard development in the case of gender equality from simply a measure for socio- economic evolution in a particular nation. Opposing to the wide-ranging credence that growth is sexual category is unbiased; but data demonstrate a different view where it has been noticed that female folk are way to backward in almost all aspects of life even in today's world not only in India but also in the world as a whole. Because of this biasness we have noticed that globally steps has been taken for uplifting women folk and pressure has been given in human development as a whole and women development became one of the key point since 1995 in United Nation Development Programme. On the whole, development of a country is not possible without empowering the female mass and helping them to grow and make them way towards development. For uplifting women and measuring their development two indices

has been introduced one is Gender related Development Index (GDI) and the other is Gender Empowerment Measure (GEM). In theory, it has been evident that there is almost equality prevails in the matter of both the gender and females are in the process of empowerment to a great extent. Moreover females are achieving more in comparison to males but unfortunately in reality the view of women empowerment in India is quite opposite.

Indian Perspective on Women Empowerment

In India empowerment of female folk enhances with the rise of India. Though gender equality was not noticed prior to Independence but in order to stand for women against gender biasness a number of principles had been drafted and brought into force which has been evident in The Constitution of India and the preface of it that is in the Preamble, in Fundamental Rights, Directive Principles and in Fundamental Duties. The Constitution not only contribute towards providing equal status to female folk however it again authorize provinces to implement procedures of affirmative prejudice supporting female folk.

If we move to the past then it has been evident that the position of female folk in the past was of greater height, in the Vedic era the status of female was prosperous as they were highly honoured culturally, socially and in almost every aspect of life. They had indeed right to educate themselves such as in the field of astrology, astronomy, geography, veterinary sciences, right to learn various art form be it horse riding, martial art, they use to participate actively in wars and fights and moreover they were free to learn various form of fighting skill, they were also skilled in performing art form dancing, singing, cooking, choosing the partner they wish. Even they had the right to stay single and give over their entire verve to acquaintance and to God for inner consciousness. The position of female folk of that time used to execute almost all tasks and forfeit uniformly with their life partner. They equipped themselves in a number of subjects of sciences as well as philosophies and also skilled themselves in military practice. In short they were extremely valued inner and outer sphere of society.

The magnificent position of female turned down with the passage of time during the middle age with the societal change.

During the later part of British rule in India the process of female development where the demand for equal right sprung with the effort of renowned persons who brought reform in our society and countrywide influential persons of India like Raja Ram Mohan Roy, Sarojini Naidu, Annie Besant, Ishwar Chandra Vidyasagar and the like who made a tremendous effort for equipping self confidence among the female folk and making them aware about their rights. They become quite successful in eradicating the social evils which cropped up from the middle age such as sati pratha in which force had been applied to step in the funeral pyre of their husband alive, marriage of girls at an early age and in some cases booking baby girl for marriage after their birth etc. Social reformers furthermore buoyant remarriage of widow and female edification. The ground for women growth has been successfully set up by the social reformers and they advocate for their equal position in our society. With the effort of the social reformers female folk of India gradually able to move from a traditional mindset to modern mindset and become more aware and tolerant in various aspects of their life. Now it has been noticed that female of today's generation are able to break free themselves from the traditional blockade forced by the social order of our society and they are not only competing with the male folk in every area of work and life but also raising their voice to make change in the patriarchal system prevalent in our society.

From the time of Independence till date numerous effort has been made by the Government of India to uplift the women folk and empowering them and made a noteworthy budge from wellbeing familiarize approach to growth approach. They set up The Commission for women had been set up nationally in 1990 to give protection to female folk and help them to make aware about their rights. Female learnt to participate actively in political affairs through the 73rd and 74th Amendments to the Constitution of India. The year of millennium that is 2001 was acknowledged as the era of female's upliftment for improving their significance and to accomplish that target the administration has pioneered various plans, strategies, programmes and recognized several establishments and made a number of legal provisions o uplift the female mass of India. Though a range of initiatives and process been taken, however women in India still lag behind the

men in case of literacy, work field etc. The picture of women has been inferior in the countryside. Though women are educating themselves and enrolled them in higher education but are facing estranged in various authority. The status of women is no case equivalent to male as the number of crime rate is uprising day by day despite a number of efforts from the end of the government like kidnapping, molestation, killing of girl child before and sometimes after taking birth, demanding money or articles of materialistic pleasure before and after marriage, burning bride, sexual harassment etc. are very recurrent.

In addition to low woman edification, there are a number of factors that directly impact sexual biasness. Even child f born as a girl is not as much of pleasing for many and many families consider boy child as a means for happiness and prosperity, this mindset cannot be completely removed from the mind of the people in our society as it is engraved in any form in the mind of the people of our society despite of caste, creed, community and religion. Since the birth of female, she is maltreated in every aspect including education, employment, nutrition and social status. United Nation Development Programme since 1990, in a number of reports relating to development of human mass stated that the status of women is in a decline rate be it in literacy , gross enrolment, , holding the seats in the Parliament and even in the proficient arena they hold. We can say that sexual discrepancy in totality is falling in a downward direction with the passage of time. A range of pointers are prevalent in our society which uplift the female folk such as women control in taking decision, Freedom of movement, societal approval of unequal gender role, admittance to service etc. Information on some of these of pointers of female upliftment is scrutinized and conclusions are brought into light in the subsequent fragments:

Women Control in Taking Decision

Taking decision by women themselves is one of the factors to articulate the position of female in the way of female upliftment. Though the ratio of decision taking not only differ depending upon the place of residence , whether they are residing in rural areas or urban areas but also equally depends upon their age, edification, education of their life-partner and their economic

position in the society. Women inhabit in municipal vicinity are comparatively more uplifted than the female residing in the country side. Empowerment among women enhances with the age and qualification, greater the qualification greater empowered the women become. Life partner's decision making will boost the height of taking decision among female as life partner's support here plays a vital role.

Less than 40% women who are married can take part in the decision for the family either alone or jointly with their life-partner whether it be for family health care, purchasing of property, groceries or visiting relatives house as well as attending invitations. And again this decision making ability is also backed by the economic status of women, hence service plays a very crucial role in empowering women mass. On the other hand we can say that women in service in most of the cases have the authority to take decision all alone. So we can say that women in the urban areas especially family which is not of joint nature have greater independence in taking family decision.

Societal approval of Unequal Gender Role

Now if we speak regarding women's view point towards women in our society than the response that come to front will be of in a controversial nature. As a large number of women in our society approve in a personal level that women beating and gender inequality is justified in a number of matters and this again is a good indicator for women empowerment in India. The protest of women against the unequal gender roles particularly regarding preferences for sons and the acceptance of domestic violence serve as a significant indicator of female upliftment in our society. The data indicates that approximately 54% of women in India consider wife beating to be justified under certain circumstances. Additionally, almost 35% of women believe it is acceptable if a wife neglects her household or children. Notably, the acceptance of wife beating shows little variation across different age groups and household structures, but it decreases markedly with higher levels of education. It is important to highlight that even among the most educated women, at least one in three endorses one or more justifications for wife beating. Furthermore, women in rural areas tend to be more accepting of wife beating compared to their

urban counterparts. The level of agreement is also lower among never-married women in contrast to those who are married.

Admittance to Edification

Literacy is a weapon for almost everyone be it a male or female but when we speak about women empowerment, in that case education works as a weapon for uplifting the female folk in our society can be calculated well through gender difference in enrolment of girl student in different stages of schooling and their dropout ratio in different stages of school edification. Comparing the literacy rates between male and female it has been noticed that the ratio of female is low till date and female partaking is not pleasing as in every level of education it has been below 50%, but it is also true that partaking of females at every phase of edification has been progressively rising with the passage of time.

Admittance to service

As per the information of National Family Health Survey available to the general public through Government of India the number of married women who are in service between the age group of 15 to 49 years is less than 50% in comparison to male folk of the same age group. Hence gender biasness is clearly visible in the sphere of service sector. Approximately 20 to 25 percent female folk are not being paid for their work at all in comparison to them less than 5 % male folk exists. Moreover, earning money for the family is not considered as an adequate stipulation for empowering women monetarily. The area where we are residing also puts impact in the empowerment of women and also control over the money earned by the female folk. By and large female in urban vicinity be more in charge over their income than that in countryside areas. Also women's control over their income significantly impinges on the level of education they poses. Further, family circle and the environment created by the family members also engage in recreation of women empowerment in India from monetary perspective. Nuclear family has less influence of relatives or other members hence women are liberal in spending their income and have greater control over their earnings as compared to non nuclear family where each money spend is noticed and in many cases the decision of the women who is earning in that family is highly influenced by others.

Limitations to Women Empowerment

A number of constrictions are there to facilitate the test in the procedure of empowering female folk in India. Societal standard and kin arrangement in budding nations akin to India, visible and disseminate the subsidiary position of women folk. It's not just a regular saying but the reality of almost every Indian family of expecting a son over a daughter and if any family blessed with a girl child then they keep on putting mental pressure to the girl child's mother of having a boy child afterwards. This preferential treatment of son over daughter has reinforced instead of undermined and it's generally a clear indication of the declining gender difference. Our societies and communities prefer boy child in almost every aspect be it in admiration of education, nourishment and other prospective. The core reason of this kind of outlook is depend upon the credence that male child accede to the race in India and women folk were bought up with this mindset that they are inferior to men in many areas and all these indifference is natural and valid, hence women themselves are the real culprit for the injustice occurred against them.

Paucity can be another reason for the large category of women in India who in reality have a little knowledge relating to women empowerment and in many cases they are pretty unaware of their rights. There are two sides of a women based upon their financial independency those who live in poverty and living in an environment where they are financially dependent are actually the real victim of injustice where they are undernourished, deprived of better education and erstwhile facilities, they become easy target for many crime like be the victim of child abuse, force labour, involved in sex racquet, easy target for trafficking etc. On the other hand those who are bought up in a family where the parents can afford all facilities for child nourishment be it in the area of health, education of other facilities are less prone to injustice. Moreover having greater hand over finance gives strength to women to raise their voice not only for them but also for those who are less privileged. They hold a good position in home as well as in the society but it will be a false notion if one will say that those who are financially independent are totally free from all kind of injustice, that's not true as there are evidence of a

number of cases in India where financial independent women are also harassed, tortured both mentally and physically.

Though the law of the land provides various legal and constitutional provisions for protecting the women but these provisions fail when a large number of women are not aware about their lawful rights and in many cases those who are aware of their rights do not take legal steps, sometimes they lack courage to raise their voice and sometimes indirect pressure from the society, family, relatives etc. prevents them to take any legal step. Mostly it is seen that law takes place in matters relating to marriage and inheritance but again in case of inheritance women step back to raise their voice for their rights in the ancestral paternal property if their brother or brothers are alive as they most of the time think that their brother and father spends a lot of money during their marriage so it will not be humane to raise their voice for the property after marriage, and it has been seen that the brothers too take this for granted that sisters have no right over the property after marriage. Again this mindset is also framed by the women in our society and the past practices of same kind work as cheery upon cake. A number of constitutional provisions has been drafted to protect women of our land apart from various provisions made in the Indian Penal Code and Criminal Procedure Code as well as other supplementary Acts that have been enacted to safeguard women such as Child Marriage Resistance Act, 1930, The Suppression of Immoral Trafficking of Women Act, 1987, The Indecent Exposure to Women Act etc. In practice Child marriage has been controlled to an extent but if we talk about immoral trafficking and indecent exposure to women then there are a number of evidences where women are still exposed in an indecent manner through media and there are hardly any prosecution as well as proper legal action taken against such cases. Hence, despite of the effort made from the point of legislations to safeguard the women in all form of injustice women are still lagging behind and so as women empowerment indecent exposure to women. There are numerous incidence of indecent exposure of women in all forms of media with hardly any prosecution. Although the legal rights are in place to create an enabling atmosphere these have not been very successful in realizing women's empowerment.

Summary and Findings

Ranges of indicator of women empowerment are perused via the records from a range of sources whilst converse women's significance in India now a days. The foremost importance is given to the indicator akin to choice of the women in family related decisions, fiscal independence, lack of restrictions regarding movement, approval of women relating to disproportionate gender responsibility, coverage to media, role of women in pursuing education, domestic violence and harassment faced by the women etc. Participation of women in politics is also taken into consideration. After going through the various information collected from a number of sources it can be deduced that the decision making power of the women in household matter and reluctance of women regarding movement depends largely upon the age, education and job profile. It has been noticed that in equal gender custom is still prevalent in today's society and the surprising fact is that it has been backed by the women themselves. Taunt in the case of movement of widow, divorcee women and even unmarried women become a daily habit of the women folk of our society. The belief system of almost half of the women in our society showcase that it is totally okay to beat wife for a number of reasons which most of the case they called a pity issue like thrashing and harassing for not cooking properly or in the standard they used to have from past days, not handling the household chores in the way they think the wife should do in case of cleaning or be taking care of the children, also refusing to indulge in the activity of sex with husband when he wants the same and showing disrespect to in-laws no matter how rude and misbehave they used to do with the wife etc. Moreover all these activities has nothing to do with the age or qualification not even the place of residence, the attitude matters and the working professionals are in no case left apart, as in some way or other they also face some form of mental harassment nowadays. At the same time as swat up women's admittance to edification and service it is bring into being that gender difference exists equally in both the situations. Be it is in the case of literacy where the participation of girls at all juncture is less than 50%. Similarly almost similar percentage has been noticed in the case of service sector and a significant portion of them are not paid for their work

and women folk who are house makers falls under this category. Even working professionals if it is women than they even don't have full control over their own earnings and a few women folk have a final say on how to utilize the money earned by them or having limitation in spending their hard earned money. Though women in urban areas can be in the charge of cash earned by them and it enhances with age and the area they are living and it will be equivalent in the case of education too, but it shows a discrepancy notably with family circle.

Female foreword to media is furthermore fewer comparative to male folk. Experiencing physical harassment is in no way different by Women's experience of domestic violence shows that violence is not lessened by age. Whereas the women folk living in the countryside are comparatively much more prone to physical and mental harassment than women are more prone to domestic violence than metropolitan women. As regards female's involvement in political matters it has been noticed that a large gender gap that large gender gap subsist in the matter of voting and less than ten per cent of total associate in Lok Sabha are female folk. The reason is a greater number of women folk be short of requisite echelon of fiscal This is because most of the women be short of desired echelon of fiscal independency, education, autonomy, literacy, physically powerful, judgment taking capacity of self, own decision making capacity, kin backup etc. Hence we can perceive that these reciprocally mutually dependent matters emphasize one another and set female folk in a detrimental situation comparative to male folk. An assortment of restriction in attaining the required echelon of empowerment is also acknowledged. A considerable portion amid them is paucity, societal rules and kin formation, be deficient in wakefulness concerning lawful and constitutional provision etc.

If we utter casually, it has been noticed that the female folk of India are comparatively less empowered and in some way or other hold lower position than that of male folk. Though numerous efforts have been made on the side of the government and NGOs, the scenario in reality is not up to the mark. Education and employment can only assist in the way to empowerment and can simply be equipment in the course of speed up the process of achieving empowerment. Conversely, attaining the real target depends on

the attitude achievement towards this goal depends more on the mind set. Until or unless the mind set en route for the reception of disproportionate gender function by the general public and even the female folk themselves misshapen women cannot grasp the prospect endow with them throughout constitutional provision, law etc. Thus we cannot strongly conclude that in reality women in India are empowered and it still remains an unanswered issue searching for its destination in reality

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Child Labour and School Dropout in Sonitpur District of Assam: Exploration of Status, Determinants and Linkages

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Abstract

Children are the foundation of a nation's future, yet in developing countries, child labour and school dropouts hinder their potential to contribute meaningfully to society. This study examines the status and determinants of child labour and school dropouts in the Sonitpur district of Assam. A total of 100 children aged 5 – 14 years were selected using a multistage purposive sampling technique from two sub-divisions, Tezpur and Dhekiajuli. Primary data were collected through structured questionnaires. Statistical tables were used for descriptive analysis, while logistic regression was applied to identify the key determinants of child labour and school dropouts. Pearson's correlation coefficient was employed to examine the relationship between the two phenomena. The findings indicate significant gender disparities with male children

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being more affected in both child labour(25 out of 29 cases) and school dropouts(29 out of 34 cases). Child labour was found to be slightly more prevalent in urban areas, whereas school dropouts were higher in rural regions. The regression Analysis identified caste as the strongest predictor of child labour(odds ratio=17.8), while family size emerged as the most significant factor influencing school dropouts(odds ratio= 8.810). Additionally, a statistically significant positive correlation($r=0.577$, $p<.01$) was observed between child labour and school dropout. The results underscore the urgent need for policy interventions addressing socio-economic factors such as family size, caste and parental education to mitigate both child labour and school dropout rates in the region.

Keywords: Childlabour, School Dropout, Logistic Regression, Socio-Economic Factors.

Introduction

Children represent the future of a nation, serving as the human capital upon which a country's development depends. However, in developing countries the practices of child labour undermines this potential by driving children of the opportunities to grow and contribute meaningfully to society. Child labor remains a critical issue worldwide with around 160 million children as it poses a serious challenge to children's wellbeing (ILO & UNICEF). ILO defines child labor as work that deprives children of their childhood, their potential and their dignity and that is harmful to physical and mental development. It refers to work which is mentally, physically, socially or morally dangerous and harmful to children or interferes with their schooling by depriving them of the opportunity to attend school, obliging them to leave school prematurely or requiring them to attempt to combine school attendance with excessively long and heavy work. Child labour is widespread and bad for development of individual child, the society and economy in which she or he lives. Children usually participate in economic activities; children assist their parents at home, in farms in shops etc. All work is not bad for children. So, there is exist a difference between child work and child labour (Tripathi, 2010). Child labour remains a persistent problem in the world today. The latest global estimates indicate that some 160 million children were engaged in child labour at the beginning

of 2020, accounting for nearly 1 in 10 children globally. School dropout and child labour are two interrelated social issues that have far-reaching consequences for individuals, families and communities worldwide. Every year, a large number of students drop out of school worldwide. In 1993, 27 million children entered school in class 1 in India but only 10 million 37% of them reached class 10 in 2003. Dropouts' rates peak in the transition between class 1 and 2 and again in class 8, 9 and 10. Dropout rates remained negative between classes 4 and 5 (Kishore et.al, 2012). Child labour and school dropouts are two interlinked social issues that have plagued developing nations for decades, with far-reaching consequences for both individual children and the broader societal fabric. The prevalence of child labour where children are engaged in economic activities instead of attending school is often a symptom of deeper systematic problem such as poverty, inadequate education systems and lack of protective policies. This study will explore the current status of child labour and school dropouts in Sonitpur District, highlighting the key factors driving these phenomena. Poverty is widely recognized as a primary driver of child labour as families in dire economic circumstances may rely on the income generated by their children to make ends meet (Satz, 2003). This creates a vicious cycle where children are unable to access education, perpetuating the cycle of poverty and limiting their future prospects (Satz, 2003).

The problem of child labour is particularly pervasive in Assam, a state primarily driven by an agrarian economy. A significant portion of Assam's child labour population is engaged in agricultural activities, assisting parents in the fields and farms, while children in urban areas often work without parental supervision and face higher risks of exploitation. Child labourers in Assam are predominantly employed in sectors such as agriculture, construction, tea plantations, jewelry making, quarries, brick kilns, cottage industries and domestic work. The brick kiln industry, in particular, has been identified as a major employer of children aged between 8 to 12 years paying them minimal wages. Assam which grapples with poverty, reported 99,512 child laborers in 2011, accounting for 3.2 % of its total population. The number of child laborers in Assam has fluctuated across decades from 239,349 in 1971 to 351,416 in 1991 and from

351,406 in 2001 to 347,353 in 2011. The state's educational system is also characterized by a notably high dropout rate, which surpasses the national average of 1.5%, while at the upper primary level; it is 8.8% as opposed to 3 % nationally. The secondary level dropout rate in Assam is a striking 20.3 %, significantly higher than the national average of 12.6 %. Moreover, boys in Assam exhibit higher dropout rates than girls at both the lower and upper primary levels with 10.1 % boys dropping out at the upper primary stage compared to 7.6 % of girls. At the secondary level, however, the dropout rate is marginally higher for girls (20.7%) than for boys (19.8%). Thus the interplay of poverty, child labour and educational challenges continues to undermine the state's social and economic development.

Objectives of the Study

after careful consideration and reviewing the available literature following objectives has been adopted

1. To examine the status of child labour and school dropouts within Sonitpur District.
2. To identify the determinants of child labour in Sonitpur District.
3. To identify the correlation between child labour and school dropouts within Sonitpur District.

Methodology

This is a case study focused on the status and determinants and linkages of school dropout and child labour in Sonitpur district of Assam. Sonitpur is the second largest districts in Assam after Karbi Anglong district in terms of area. According to 2011 census population of Sonitpur district is 1,924,110 out of which urban population is 1,73,845 while rural population is 17,50,2665. The district has a population density of 365 inhabitants per square kilometer. Sonitpur has sex ratio of 946 female for every 1000 males and a literacy rate is 69.96 %. Sample size: 100 samples have been collected for the study purposively. Which is a minimum sample size needed for a meaningful result. Sampling design: The present study is basically a primary data based study. Multistage purposive sampling technique has been adopted to collect the sample. The present study seeks to examine the determinants of child labour and school dropouts among area of Sonitpur district of Assam. The units of the study are children of 5-14 years of age group who are the engaging in earning or economic activity of

early young age potentialities for paid or unpaid works. Sonitpur district has seven Sub-division in the district such as Biswanath, Chariduar, Dhekiajuli, Gohpur, Helem, Na Duar, Tezpur. The primary data for the present study had been collected from two sub-divisions namely Tezpur and Dhekiajuli. A total of 50 respondents from each sub-division have been interrogated making 100 samples for the study. To fulfill the objectives of the study data were collected through a multi-stage sampling method from those selected subdivisions with the help of a structured questionnaire.

Data analysis technique: Statistical tables has been applied to convey the result of the first objective and to fulfill the second objective Logistic Regression is applied as the primary analytical method due to the binary nature of the dependent variables— child labor (1 = child labor present, 0 = otherwise) and school dropouts (1 = dropout present, 0 = otherwise). The regression model is based on the logit function, which predicts the probability of child labor or school dropouts based on the set of explanatory variables. To fulfill the third objective pearson's correlation coefficient technique has been applied.

Results and discussions:

To derive meaningful insights from the collected data which is typically contained in schedules and questionnaires, it is essential to analyze and present it in a structured manner. In this section statistical tables were used for summarizing and simplifying data for better interpretation.

Table 1: Profile of drop-outs and child labour in the study area

	Distribution in Gender	Rural	Urban	Total
No of school drop-outs	Male	19	10	29
	Female	1	4	5
No of child labour	Male	14	11	25
	Female	0	4	4

Source: Field Survey

The above table shows both school dropouts and child labour in Sonitpur district, Assam across rural and urban areas. The

combined data reveal a total of 34 dropout children(29 males, 5 females) and 29 child laborers(25 males, 4 females). The findings highlight a significant gender gap, with males being more affected in both cases. Additionally, child labour is slightly higher in urban areas, whereas dropouts are more prevalent in rural areas.

Table 2: Number of Education Years of the Dropouts Children in the Household.

Class Interval	Male	Female	Total
0 – 5>	0	1	1
5 – 10>	21	15	36
10 – 15>	6	20	26
15>	2	1	3

Source: Field Survey.

From the above table -2 indicate the number of education years of the dropout's children in the household from field survey in Sonitpur District of Assam. Out of 66 dropout's children 29 males and 36 females have taken. Where it is found in survey most of the male dropouts dominate the 5 – 10 years range (21 out of 36), while female dropouts dominate the 10 – 15 years range(20 out of 26), suggesting possible gender- based differences in educational challenges or opportunities. Only 3 children (2 male, 1 female) have completed more than 15 years of education, indicating a very low number of dropouts among higher-educated children.

Logistic regression equation on child labour (Model-1)

Model-1 is constructed with Child Labour as dependent variable where Child Labour is a dichotomous variable quantified as is there is Child Labour in the household 1 and 0 other wise. A logistic regression equation is constructed (model-1) to find out the determinants of Child Labour. The set of explanatory variables used is as follows: Child Labour as Dependent, size of the family, type of the family, Dummy, if nuclear1;0 joint family, place of the residence, dummy if rural 1;0 urban, caste dummy if general1:0 others, wealth of the family, household asset if yes 1: 0 otherwise, education of the father in years, education of the mother in years, source of income dummy if govt 1: 0 otherwise, monthly income of the family, number of school going children in the household

The descriptive statistics of the variables included in Model-1 are given in table

As shown in Table 3, the mean wealth of the families is Rs 1497000, mean education of the father is 8.58 years and mean education of the mother is 6.47 years. SD of wealth is recorded as Rs. 2019745.709, SD of Education of the father is 5.225 years and SD of Education of the mother is 5.118 years. The result of the logistic regression equation (Model-1) is given in table 4.

Binary logistic regression was performed to assess the impact of several factors on the Child Labour. The model contained twelve independent variables (Size of the family, Caste, Education of the mother, monthly income of the family, type of the family, religion, place of residence, wealth of the family, education of the father, Source of income of the family, Number of School going children and household assets). The full model containing all predictors was statistically significant, $\chi^2(5, N=100) = 80.22, p < .001$, indicating that the model was able to distinguish between respondents who reported and did not reported Child labour. The model as a whole explained between 55.2% (Cox and Snell R square) and 78.8% (Nagelkerke R square) of the variance in Child labour and correctly classified 71% of cases. As shown in Table 5.18 only three of the independent variables made a unique statistically significant contribution to the model (Size of the family, Caste and Education of the mother). The strongest predictor of Child labour was Caste recording an odds ratio of 17.8. This indicated that General Category people were over about 17.8 times more likely report Child Labour than Other Castes.

Households, controlling for all other factors in the model. The odd ratio of 1.998 for size of the family indicates that the large families were 1.998 times more likely to report child labour than small families. Odd ratio .594 for education of mother indicates that the educated mothers were .594 times less likely to report child labour.

Table 3:

Descriptive Statistics			
	N	Mean	Std. Deviation
child labour	100	.29	.456
type of the family	100	.79	.409
Religion	100	.32	.469
place of the residence	100	.53	.502
Caste	100	.70	.461
wealth of the family	100	1497000.00	2019745.709
education of the father	100	8.58	5.225
education of the mother	100	6.47	5.118
source of income of the family	100	.21	.409
no of school going children in the household	100	1.18	.821
size of the family	100	4.66	1.707
monthly income of the family	100	42086.00	40660.946
household assets	100	1.06	.600
Valid N (listwise)	100		

Table 4 :

Variables in the Equation									
		B	S.E.	Wald	df	Sig.	Exp(B) Lower	95% C.I. for EXP(B)	
								Upper	
Step 1a	Size of the family	.692	.341	4.118	1	.042	1.998	1.024	3.900
	Type of the family (1)	.588	1.550	.144	1	.704	1.801	.086	37.589
	Religion (1)	-1.040	1.442	.520	1	.471	.354	.021	5.965
	Place of the	1.496	1.046	2.048	1	.152	4.465	.575	34.667

residence (1)								
Caste	2.879	1.427	4.071	1	.044	17.804	1.086	291.873
Wealth of the family	.000	.000	.036	1	.849	1.000	1.000	1.000
Household assets (1)	-19.771	40192.946	.000	1	1.000	.000	.000	.
Education of the father	.238	.200	1.406	1	.236	1.268	.856	1.878
Education of the mother	-.521	.228	5.220	1	.022	.594	.380	.929
Source of income of the family (1)	19.653	7296.433	.000	1	.998	34286753 7.479	.000	.
Monthly income of the family	.000	.000	2.278	1	.131	1.000	1.000	1.000
No of school going children in the household	-.655	.618	1.124	1	.289	.519	.155	1.744
Constant	-3.550	40849.857	.000	1	1.000	.029		

a. Variable(s) entered on step 1: size of the family, type of the family, religion, place of the residence, caste, wealth of the family, household assets, education of the father, education of the mother, source of income of the family, monthly income of the family, no of school going children in the household.

Logistic regression equation on School dropouts (Model-2)

Model-2 is constructed with School Dropouts as dependent variable where School Dropouts is a dichotomous variable

quantified as is there is School Dropouts in the household 1 and 0 other wise. A logistic regression equation is constructed (model-2) to find out the determinants of School Dropouts. The set of explanatory variables used is as follows: School drop outs Dependent, size of the family, type of the family, Dummy, if nuclear1:0 joint family, place of the residence, dummy if rural 1:0 urban, caste dummy if general1:0 others, wealth of thefamily, household asset if yes 1: 0 otherwise, father's education in years, mother's education in years, source of income dummy if govt 1: 0 otherwise, household's monthly income, number of school going children in the household. **The descriptive statistics of the variables included in Model-2 are given in table 5.**

Table 5:

Descriptive Statistics			
	N	Mean	Std. Deviation
Dropouts	100	.35	.479
type of the family	100	.79	.409
Religion	100	.32	.469
place of the residence	100	.53	.502
Caste	100	.70	.461
wealth of the family	100	1497000.00	2019745.709
education of the father	100	8.58	5.225
educationof the mother	100	6.47	5.118
sourceof income of the family	100	.21	.409
no of school children in the household	100	1.18	.821
size of family	100	4.66	1.707
Family's monthly income	100	42086.00	40660.946
household assets	100	1.06	.600
Valid N (listwise)	100		

As shown in Table 5 the mean wealth of families is Rs 1497000, mean father's income is 8.58 years and mean mother's income is 6.47 years. SD of wealth is recorded as Rs. 2019745.709, SD Education of the father is 5.225 years and SD of Education of the mother is 5.118 years. The result of the logistic regression equation (Model-2) is given in table 6.

Binary logistic regression was performed to analyze the impact of several factors on the School Dropouts. The model contained eleven predictor variables (Size of the family, Caste, Education of the mother, monthly income of the family, type of the family, religion, place of residence, wealth of the family, education of the father, Source of income of the family, Number of School going children). The model containing predictors was statistically significant, χ^2 (5, N=100) =101.58, $p \leq .001$, indicating that the model distinguish between respondents who reported and did not reported School Dropouts. The model as a whole explained between 63.8% (Cox and Snell R square) and 87.9% (Nagelkerke R square) of the variance in School Dropouts and correctly classified 65% of cases. As shown in Table 5.20 only four of the independent variables made a unique statistically significant contribution to the model (**Size of the family, Caste, Education of the mother, monthly income of the family**). The strongest predictor of School Dropouts was size of the family estimating an odds ratio of 8.810. This indicated that families with larger size were over about 8 times more likely report school dropouts than smaller families, controlling for all other factors in the model. The odd ratio .025 for caste indicates that the general caste were .025 times less likely to report Child labour than other castes.

Table-6

Variables in the Equation									
		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper	
Step 1a	Size of the family	2.176	.774	7.895	1	.005	8.810	1.931	40.190
	Type of the family (1)	-1.150	2.068	.309	1	.578	.317	.005	18.240

Religion (1)	.077	2.286	.001	1	.973	1.080	.012	95.435
Place of the residence (1)	2.350	1.649	2.032	1	.154	10.489	.414	265.596
Caste (1)	-3.687	1.830	4.059	1	.044	.025	.001	.905
Wealth of the family	.000	.000	1.965	1	.161	1.000	1.000	1.000
Education of the father	.493	.365	1.820	1	.177	1.637	.800	3.348
Education of the mother	-.932	.467	3.992	1	.046	.394	.158	.982
Source of income of the family (1)	.015	2.177	.000	1	.995	1.015	.014	72.417
Monthly income of the family	.000	.000	5.235	1	.022	1.000	1.000	1.000
No of school going children in the household	.839	.822	1.044	1	.307	2.315	.463	11.582
Constant	-6.762	3.982	2.883	1	.090	.001		

a. Variable(s) entered on step 1: size of the family, type of the family, religion, place of the residence, caste, wealth of the family, education of the father, education of the mother, source of income of the family, monthly income of the family, no of school going children in the household.

From this study it is seen that the total number of school dropout children in the study area is 34 out of 100 families in Sonitpur District of Assam. Total number of school dropout children in rural area 20 out of 100 families (19 male and 1 female) in Sonitpur District of Assam. Total number of school dropout children in urban area 14 out of 100 families (10 male and 5 female) in Sonitpur District of Assam. Total number of school dropout children religion wise in the study area is 34 out of 100 families in Sonitpur District of Assam. Total number of school dropout children in Muslim religion 27 out of 100 families (25 male and 2 female) in Sonitpur District of Assam. Total number of school dropout children in Hindu religion 7 out of 100 families (4 male and 3 female) in Sonitpur District of Assam. Total number of child labour in the study area is 29 out of 100 families in Sonitpur District of Assam. Total number of child labour in rural area 14

out of 100 families (14 male and 0 female) in Sonitpur District of Assam. Total number of child labour in urban area 15 out of 100 families (11 male and 4 female) in Sonitpur District of Assam. Total number of child labour religion wise in the study area is 29 out of 100 families Sonitpur District of Assam. Total number of child labour in Muslim religion wise is 24 out of 100 families (23 male and 1 female) in Sonitpur District of Assam. Total number of child labour in Hindu religion wise is 5 out of 100 families (2 male and 3 female) in Sonitpur District of Assam.

Model-1- Three of the independent variables made a unique statistically significant contribution to the model (**Size of the family, Caste and Education of the mother**). The strongest predictor of Child labour was **Caste** recording an odds ratio of 17.8. This indicated that General Category people were over about 17.8 times more likely report Child Labour than Other Castes.

Model-2-Four of the independent variables made a unique statistically significant contribution to the model (**Size of the family, Caste, Education of the mother, monthly income of the family**). The strongest predictor of School Dropouts was size of the family recording an odds ratio of 8.810. This indicated that families with larger size were over about 8 times more likely report school dropouts than smaller families, controlling for all other factors in the model

The correlation between school dropout and child labour

School dropout and child labour are two interrelated social issues that have far-reaching consequences for individuals, families and communities worldwide. Understanding the dynamics between these two phenomena is crucial especially in the context of least developed countries where both challenges often converge. Poverty is a primary driver of both school dropout and child labour (Sasmal & Guillen, 2015). Children from low-income households may be forced to leave school and contribute to their family's income, either through wage-earning employment or through unpaid labour can perpetuate itself, creating a "child labour trap" that is difficult to break. The econometric analysis conducted in the Indian context demonstrates a significant correlation between poverty, illiteracy and child labour (Sasmal & Guillen, 2015). Children living in poverty are more likely to drop

out of school and enter the workforce, either in formal and informal sectors. This relationship is further exacerbated by factors such as gender and caste discrimination, which can disproportionately affect certain groups of children (Marandhar & Sthapit, 2012). The impact of child labour on school dropout is particularly acute in least developed countries. The present study aimed to investigate the relationship between school dropout and child labour among a sample of households. To this end, 100 samples were collected and the Pearson correlation coefficient between the two variables was calculated shown in the following table

Correlations			
		Dropout	Childlabour
Dropout	Pearson Correlation	1	.577**
	Sig. (2-tailed)		.000
	N	100	100
Childlabour	Pearson Correlation	.577**	1
	Sig. (2-tailed)	.000	
	N	100	100
**. Correlation is significant at the 0.01 level (2-tailed).			

The analysis revealed a statistically significant positive correlation ($r = .577$, $P < .01$, two tailed) between school dropout and child labour. Specifically, a Pearson correlation coefficient of 0.577 was found, which was significant at 1 % two tailed level. This finding suggests that as the prevalence of child labour increases the likelihood of school dropout. Furthermore, the present findings underscore the importance of addressing the underlying factors that contribute to both child labour and school dropout.

Conclusion

Many poor parents bear children in order to enhance family income. Poverty and inadequate income forces parents to put their children in the labour force. Lack of parental motivation, high opportunity cost of schooling, broken families, orphanages, marital conflicts in a family, non-availability of school education in their respective native places, fear of the teacher and poor performance

in school and also failing in a subject like Mathematics at primary level and English language at middle school level also contribute to aggravation of the problems of child labour. Non-schooling of children or dropouts children has intimately connected with exploitation of child labour which is the consequence of social inequality, attitude of the privileged classes and lack of public involvement in the protection of basic entitlement. Employment of children is a social evil. They are our little buds who will blossom for making the future of our country. So it is our duty to see that they develop healthily both in body and mind. It is true that the government is taking necessary steps to rehabilitate them but lack of proper information and accessibility has made this evil still persist in our society.

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Labour Welfare Practices in Tea Industry: A Case Study of Cossipore Tea Estate in Cachar District of Assam

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Abstract

Tea is the most widely consumed and reasonably priced beverage available in India. Tea plantation is a large agro-based and labour-intensive industry and the single largest employer in the country, providing work to about a million workers directly. Tea has become one of India's most important commodities during the past few decades. A Survey was undertaken at Cossipore Tea Estate with a targeted sample of 200 labourers regarding the availability of various welfare facilities as part of an effort to investigate the roles played by management, the government, and labour unions towards labour welfare practices of the Tea industry in Assam. This study speaks about how the management is taking care of workers' health, safety, and welfare. The welfare, health, and safety precautions provided by the management of tea gardens will immediately impact the workers' attentiveness, confidence, physical and emotional well-being, and inclusive productivity. The primary data was collected for the study through a structured schedule and face-to-face

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interviews, and the percentage analysis method was used to interpret and analyse the data.

Keywords: *Cossipore Tea Estate, Plantation Labour Act, Welfare Measure.*

Introduction

Labour is vital in a world where competition is fierce and factors like price, quality, innovation and flexibility are highly competitive. The tea industry employs a significant number of workers throughout the manufacturing process, from the planting of tea bushes to the finished product, making it one of the most labour-intensive sectors in the world. The situation of labourers on tea plantations differs from that of other industrial systems. Two significant distinctions from different professions are the lower income they make and the harsh environment they have been living in. For this reason, the government needs to act quickly and decisively to raise the status of these workers (Hazarika, 2017). India's social policy has always strongly emphasized labour welfare, demonstrating the nation's dedication to securing the well-being of its sizeable labour population. In India, labour welfare programs seek to enhance the quality of life of the labourers by promoting their social, mental and physical health as well as creating a motivated and productive workforce. The term "Labour welfare" describes the range of benefits, conveniences and facilities companies, governments, or other organizations offer their workforce to enhance their general well-being and working circumstances.

As the world's leading producer of tea, Assam has witnessed the extraordinary expansion and development of its tea industry over the years. Before Mr. Robert Bruce discovered tea in the early 19th century, the indigenous Singpho population in upper Assam had a history of tea plantations. Workers from Orissa, Jharkhand, Chhattisgarh and other parts of the nation were brought to Assam to work on tea plantations at the behest of the British tea planters. These individuals eventually made their home and blended in with Assamese society and culture; are now referred to as the Tea Tribe or Adivasi community in Assam. The world's recognition and fame for Assam tea are a result of the arduous effort of the tea garden workers and the exceptional skill of tea leaf plucking by the women pluckers.

In 1931, the Royal Commission on Labour acknowledged the necessity of labour welfare measures during the colonial era, stating that workers relied heavily on these measures because they could not ensure their well-being. Additionally, the panel acknowledged that labour welfare measures were a prudent investment because they would increase labour productivity and efficiency and yield a profit. The commission came to the following conclusions: the availability of canteens would improve the physical appearances of employees; the provision of entertainment would lessen the prevalence of vices; medical assistance, maternity and child welfare services would enhance employee and family health and lower rates of overall, maternal and infant mortality and educational services would boost employee productivity and efficiency. The social and economic pillars of the industrial economy were said to be protected by industrial workers, who were actual soldiers. According to IMC reports, the welfare committees that the government already provides to the nation's residents should also be extended to the plantation estates and therefore, pertinent provisions in the Plantation Labour Act need to be reviewed. (Bhattacharjee & Nirmolia, 2015).

Statement of the Problem

The Tea Industry of Assam has faced several difficulties, which also include welfare issues of its employees. To protect the health, happiness and general standard of living of the workers who form the foundation of the tea Industry, labour welfare policies are crucial. However, the federal and state governments have periodically developed various labour welfare policies to safeguard employees at their places of employment and in their gardens; these policies have also been embraced by the tea estate. Even with the various labour welfare measures implemented in tea estates, workers' concerns have not yet been addressed. Concern should be raised about inactive labour unions and tea estate management's role in this regard. The problems that workers encountered remain unresolved till date despite the various labour welfare procedures that tea estates implement. In addition to this, another instance of deprivation is the incorrect local application of various acts, regulations, rules, and ignorance of the various welfare benefits to be provided by the employer.

Review of Literature: The literatures reviewed for the purpose of the present study are highlighted below:

Pachoni, P. (2016) conducted a study that emphasized the crucial role played by tea workers throughout the entire tea plantation process. The primary goal was to investigate the labour welfare methods adopted by the management of the chosen tea plantation, in addition to the part played by the state and labour unions in these procedures. A sample of 100 respondents, who were either workers or consumers, was chosen for the study using a random sample method. It was concluded from the study that Tea workers are still in the industry's continued progress. Labour welfare practices are essential for tea estates to ensure increased productivity, good working relationships, low absenteeism, a positive work atmosphere, job satisfaction and security.

Shailshree, K. (2019) conducted a study with a sample size of 150 respondents to evaluate the various welfare programs available for coffee plantation workers and is based on the degree of workers' satisfaction with the programs. The primary goal of this study was to find out the connections between the welfare program and demographic variables. Primary data was gathered using the interview method, whereas official records, journals, newsletters, and handbooks were also consulted for secondary data. The study revealed that the majority of workers were updated with all the well-being programs that the government and office boards have put in place.

Borgohain, J. (2020) conducted a study highlighting that any action performed by a company on behalf of its workers to increase or promote their level of comfort is referred to as welfare. The main objective was to ascertain whether or not employees in the construction industry are aware of the voluntary and statutory welfare opportunities that are accessible to them. Both primary and secondary sources of information were gathered. According to the study, most of the employees in unorganized sectors were ignorant about their industry's and their own voluntary and statutory welfare advantages.

Waititu, Kihara, & Senaji (2017) evaluated the results of a study conducted with 172 sample respondents for a welfare program at a Kenya Railways station to assess the influence of occupational health on employee performance and to investigate the influence

of succession plans on employee performance and the study concluded that employee performance is affected by five variables ((occupational health, succession planning, training, and development, employee referral scheme, and remuneration policies).

Naushad, J.A. and Haorei, W. (2018) conducted a study with 350 sample respondents and observed that more men than women entered the tea plantation industry at a very early age without completing the necessary schooling, which affects their knowledge level and educational background. The primary objective of the study project was to investigate the welfare initiatives implemented by the small tea growers in the Nilgiri district.

Satyanarayana and Reddy (2012) conducted a study that attempted to ascertain the degree of employee satisfaction with labour welfare measures at KCP Limited. The researcher conducted the study by using a convenience sampling technique. A structured schedule was employed to understand each employee's viewpoint on various measures. Findings of the study showed that most of the employees are happy with the welfare facilities made available by the company to them.

Jindal, O., Singh, R., & Biswas, N. (2018) conducted a study to determine the best welfare measures that can be implemented for the employees, analyse the application of labour welfare laws, and estimate the impact of welfare initiatives on employee satisfaction, productivity, and performance. Techniques used in the study included surveys, interview and case studies, and the approach included quantitative and qualitative research techniques, factor analysis, such as regression analysis, and content analysis.

Chaubey & Rawat (2016) conducted a study to ascertain how labour welfare measures affected work satisfaction. The sample method used for this study was a convenient sampling method. The main focus area of the study covered Dehradun's small-scale industries. A sample of 153 respondents was taken from the entire population. After being coded, the acquired data were analysed utilizing several statistical tests and SPSS run depending on fictitious and related factors. The findings showed that labour welfare measures had a considerable impact on job satisfaction.

Kalimuthu, M., & Megavarshini, N. (2021) conducted a study intended to evaluate working conditions, identify factors affecting wages and look at the socio-economic and demographic profile of plantation employees. In addition to highlighting their social and economic backwardness, illiteracy, lack of knowledge about labour welfare and social security programs, inadequate sanitation and water facilities, lack of a permanent status and vulnerability to exploitation. The findings highlighted the miserable living conditions of tea estate workers. Government intervention, tighter laws and regulations and the protection of worker rights and welfare were all stressed in the report. Regression analysis and the semi-log earning function were used as a technique and socioeconomic research, case studies and evaluation studies were used as the methodology.

Research Gap

Numerous earlier researchers' studies show the impact of welfare programs on productivity and performance; nevertheless, more in-depth research is needed to assess how successfully these programs should be implemented given the diverse demands and worker demographics. In their extensive studies on the plantation industry and labour welfare in India, numerous social researchers have taken into consideration the factors of safety, health, welfare measures and productivity of the tea workers. However, one of the main issues that has not been fully examined is the availability of creche facilities, working conditions, and infrastructure facilities. Moreover, not many researchers have studied the conditions of the tea estates of the Barak Valley in particular, especially Cossipore tea estate, which is located in the Cachar district of Assam and is chosen for this study.

Objective of the Study: The present study includes the following objectives:

1. To study the awareness of the tea garden workers regarding the various welfare facilities that can be availed by them.
2. To study the different labour welfare practices adopted by the management of Cossipore Tea Estate.
3. To know the satisfaction and dissatisfaction level of the respondents towards the welfare facilities provided and availed by them.

Methodology

The analytical research design was used as a basis for this study, and the data was collected from primary and secondary sources. The personal interview method was the primary approach used to obtain primary data. A structured schedule was set up to conduct the entire investigation at the Cossipore Tea Estate in the Cachar District of Assam. A sample of 200 respondents, i.e. workers, was selected through a simple random technique. Personal interviews with the Garden Manager, workers, and union leaders were also undertaken. Besides these, secondary data were obtained from books, research papers, unpublished theses, and websites, etc. Several provisions of the Plantation Labour Act, 1951, Assam Tea Plantation Employees Welfare Fund Act, 1959 had also been reviewed.

Data Analysis and Interpretation

Table 1: Gender of the Respondents

Gender	No. of Respondents	Percentage (%)
Male	115	57.50
Female	85	42.50
Total	200	100.00

Source: Compiled from Schedule.

Interpretation: From the above table, it can be revealed that out of 200 respondents, 115 were males, while the remaining 85 respondents were females.

The analysis shows that, out of the total respondents, men made up a slightly larger number (57.5%) than women, this gender distribution data can be essential for deciphering the sample's demographic makeup and examining gender-specific insights.

Table 2: Age of the Respondents

Age	No. of Respondents	Percentage (%)
18-30	40	20.00
31-45	105	53.00
45-58	55	28.00
Total	200	100.00

Source: Compiled from Schedule

Interpretation: From the above table, it can be observed that out of sampled respondents, 40 respondents are between 18-30 years, 105 respondents are between 31-45 years, and the remaining 55 respondents are between 45-58 years.

Table 3: Educational Qualification of the Respondents

Educational Qualification	No. of Respondents	Percentage (%)
VIII Passed	43	21.50
HSLC Passed	22	11.00
HS Passed	11	05.50
Below VIII Standard	124	62.00
Total	200	100.00

Source: Compiled from Schedule

Interpretation: The above table shows that 43 respondents were VIII Passed, 22 respondents were HSLC Passed, 11 of them were HS Passed, and the remaining 124 respondents mentioned that they did not receive any formal education. This distribution makes it clear that most respondents have little to no formal education, which may impact their ability to find work, income, and general socioeconomic standing.

Welfare Measure

Creche Facilities

According to the Plantation Labour Act, 1951

The employer of every Plantation wherein 50 or more women workers, including women employed by any contractor, are ordinarily employed, or where the number of children (below the age of 6 years) of women workers is 20 or more, shall provide suitable rooms for the use of children. Besides, the state government may order the provision of creche facilities in any plantation employing less than 50 women workers or where the number of children of women workers is below 20. The creche rooms shall be under the charge of women trained in the care of children and infants. It should be adequately lighted and ventilated, and maintained in a clean and hygiene condition lighted and ventilated, and maintained in a clean and sanitary condition.

The opinion of the respondents concerning the Creche Facilities is represented below:

Table 4: Satisfaction towards Creche Facilities

Satisfaction towards Creche Facilities		
Particulars	No. of Respondents	Percentage (%)
Highly Satisfied	20	24.00
Satisfied	39	46.00
Neutral	10	10.50
Dissatisfied	13	15.50
Highly Dissatisfied	03	04.00
Total	85	100.00

Source: Compiled from Schedule

Interpretation In order to obtain the feedback of the services of creche facilities, opinion of female respondents i.e., 85 out of 200 respondents have only been taken for the study. The above table reveals that out of 200 respondents, 48 were highly satisfied with the creche facilities, 92 respondents were satisfied, 21 respondents were neutral about their opinion, 31 respondents expressed their dissatisfaction, and only 8 respondents were highly dissatisfied with the facilities due to the poor maintenance of the Creche.

Canteen Services

As per the Plantation Labour Act, 1951

Every plantation with 150 or more employees must have one or more canteens available and kept up for the workers' use.

The following is the condition of the Canteen facilities available in Cossipore Tea Estate.

Table 5: Canteen Facilities

Particulars	No. of Respondents		Percentage (%)	
	Yes	No	Yes	No
Availability of Canteen	0	200	0	100.00

The Price paid in the factory is different from the market price	0	200	0	100.00
Availability of Quality food at a reasonable price in the canteen	0	200	0	100.00
Total	200		100.00	

Sources: Compiled from Schedule

Interpretation: The above table reveals that out of 200 respondents, it can be observed that all respondents responded negatively to the provision of canteen services to the labourers. None of the respondents mentioned positively to the questions related to canteen services, which shows negligence on the part of the authorities towards the Canteen services, which are basic and essential for the survival needs of the labourers and help to motivate them to increase the work timing and productivity.

Recreational Facilities

As per the Plantation Labour Act, 1951

Employees and children working on the employer's plantation may be obliged to have access to appropriate recreational facilities.

The scenario of the Recreational facilities in Cossipore Tea Estate is highlighted below:

Table 6: Awareness Regarding Recreational Facilities

Awareness Regarding Recreational facilities		
Particulars	No. of Respondents	Percentage (%)
Yes	70	35.00
No	130	65.00
Total	200	100.00

Sources: Compiled from Schedule

Interpretation: The above table reveals that out of 200 respondents, 70 respondents positively confirmed their awareness of recreational facilities in the estate, whereas 130 respondents negatively responded to the statement.

Educational Facilities

Table 7: Rating the Satisfaction level towards Overall Educational Facilities Provided in Cossipore Tea Estate

Educational Facilities	Respondents	Percentage (%)
Highly Satisfied	22	11.00
Satisfied	112	56.00
Neutral	23	11.50
Dissatisfied	20	10.00
Highly Dissatisfied	23	11.50
Total	200	100.00

Sources: Compiled from Schedule

Interpretation: The above table shows that out of sampled respondents, 22 respondents were highly satisfied, 112 respondents were satisfied, 23 respondents, were neutral about their opinion, 20 respondents and remaining 23 respondents were highly dissatisfied with the educational facilities being provided by the estate.

Housing Facilities

According to the Plantation Labour Act, 1951

Every employer is required to provide and maintain necessary housing accommodation (a) for all employees and their families living on the plantation and (b) for all employees and their families living outside of the plantation who have worked there continuously for 6 months and who have written down their desire to live there. However, a worker who is a member of the family of a deceased worker who lived on the plantation just before his death shall not be subject to the requirement of six months of service. The regulations should be followed when providing housing amenities. The following table shows the status of housing facilities of the Cossipore tea garden.

Table 8: Beneficiary of the Housing Scheme of the Government of Assam

Availed the Housing Scheme provided by the Government of Assam		
Particulars	No. of Respondents	Percentage (%)
Yes	112	56.00
No	88	44.00
Total	200	100.00

Sources: Compiled from Schedule

Interpretation: The above table explains the fact that out of 200 respondents, 112 respondents responded positively that they received the housing scheme provided by the Government of Assam, whereas 88 respondents responded negatively that they have not availed the benefit of housing scheme by the Government of Assam.

Table 9: Availability of different parameters relating to Housing Facilities

Particulars	Opinion of the Respondents			
	No. of Respondents		Percentage (%)	
	Yes	No	Yes	No
Centralized Water Supply	162	38	81.00	19.00
Centralized Sanitation Compound	173	27	86.50	43.25
Centralized Gas Supply	151	49	75.50	24.50
Electricity	191	9	95.50	04.50

Sources: Compiled from Schedule

Interpretation: The above table reveals that out of 200 respondents, 162 respondents positively responded to the statement that centralized water supply is made available to the them, while 38 respondents disagreed with the statement. In case of Centralized sanitation compound facility, 173 respondents positively replied

that the facility is made available to them, while 27 respondents negatively responded to the statement. Again, 151 respondents positively responded to the statement that Centralized Gas supply is available to them, while 49 respondents negatively responded to the statement. Out of 200 respondents, 191 positively responded that the Electricity facility is provided to them, while 9 respondents do not have access to the facility yet.

Other Facilities: -

As Per the Plantation Labour Act, 1951

The employer may be required to provide the workers with such number and type of umbrellas, blankets, raincoats, or other things like amenities for the protection of workers from rain or cold as may be prescribed under the rules.

The following table shows the feedback of the Respondents towards various other facilities which the management of Cossipore Tea Estate provides.

Table 10: Intramural and Extramural Facilities

Facilities	Highly Satisfied	%	Satisfied	%	Neutral	%	Dissatisfied	%	Highly Dissatisfied	%	Total
Seating Facility	45	22.50	87	43.50	23	11.50	30	15.00	15	07.50	200
Transport Service	17	08.50	72	36.00	67	33.50	19	09.50	25	12.50	200
Washing Area	11	05.50	44	22.00	84	42.00	47	23.50	14	07.00	200
Rest Room	21	10.50	67	33.50	54	27.00	41	20.50	17	08.50	200
Emergency Service	51	25.50	23	11.50	66	33.00	42	21.00	18	09.00	200

Sources: Compiled from Schedule

Interpretation: The above table shows that opinion towards extramural and intramural facilities (includes Seating facilities, Transport services, washing area, Rest room, and Emergency services) reveals that out of sampled respondents, 45 respondents were highly satisfied, 87 respondents were satisfied, 23 respondents were neutral, 30 respondents showed dissatisfaction and the remaining 15 respondents were highly dissatisfied with the Seating facility. While Regarding the opinion about the Transport services, 17 respondents were highly satisfied with the service, 72 were satisfied, 67 respondents were neutral, 19 of them were dissatisfied, and remaining 25 respondents showed high dissatisfaction. In case of the washing area facility, 11 respondents were highly satisfied, 44 respondents were satisfied, 84 respondents were neutral about their opinion, whereas 47 respondents were dissatisfied, and the remaining 14 respondents were highly dissatisfied. Again, in case of rest room services, 21 respondents were highly satisfied, 67 respondents were satisfied, 54 respondents were neutral, 41 respondents were dissatisfied, and while the remaining 17 of them were highly dissatisfied with the service. Again, it is observed that 51 respondents were highly satisfied with the Emergency services, 23 respondents were satisfied, 66 respondents were neutral, 42 respondents were satisfied and the remaining 18 respondents were highly dissatisfied.

Hours and Limitations of Employment:

i) Working hours

According to the Plantation Labour Act, 1951. The working hours of an adolescent worker shall not exceed 27 hours a week and that of an adult worker shall not exceed 48 hours a week. An adult worker may work overtime so that the working hours do not exceed 9 hours on any day and 54 hours a week. Besides, no woman worker should be assigned to work between 7 A.M. and 6 P.M.

ii) Weekly Holiday

Plantation Labour Act 1951 states that State Governments may make rules allowing all workers to work overtime on a day of the week for every seven days and also determining the conditions

and circumstances under which an adult worker may be allowed or required to work overtime.

iii) Rest Interval

As per the Plantation Labour Act, 1951. No worker shall work for more than 5 hours before he has had a rest interval of at least half an hour. The spread-over on any day for an adult worker in a plantation shall not exceed 12 hours, including his internal rest and any time spent waiting for work. And many other provisions.

The following table represents the hours and limitations employment facilities prevailing in Cossipore Tea Estate.

Table 11: Rating the Satisfaction of Working Environment of the Estate according to the Respondents

Rating the Satisfaction of Working Environment of the Estate		
Parameters	No. of Respondents	Percentage (%)
Highly Satisfied	32	16.00
Satisfied	57	28.50
Neutral	71	35.50
Dissatisfied	26	13.00
Highly Dissatisfied	14	07.00
Total	200	100.00

Source: Compiled from Schedule

Interpretation: Under the Plantation Labour Act, 1951, there are different provisions by the hours and limitation of employment for the tea garden labourers, such as Working hours and Weekly holiday, etc. From the above table and diagram, it can be revealed that 32 respondents were highly satisfied with the working environment of the Estate. 57 respondents were satisfied, 71 respondents were neutral in their opinion, whereas 26 respondents were dissatisfied, and the remaining 14 respondents mentioned high dissatisfaction with the prevailing working environment of the Estate.

HEALTH PROVISION

The Plantation Labour Act, 1951, provides various facilities for maintaining the health of the labourers.

The following table gives clear picture about the Health Facilities available in Cossipore Tea Estate.

Table 12: Rating the Satisfaction of the Respondents towards Medical Facilities provided by Cossipore Tea Estate

Medical Facilities	Highly Satisfied	%	Satisfied	%	Neutral	%	Dissatisfied	%	Highly Dissatisfied	%	Total
Routine Checkup	21	10.5	50	25.00	60	30.00	48	24.00	21	10.5	200
First-Aid	39	19.50	66	33.00	70	35.00	21	10.50	04	02.00	200
Medicine Supplied	22	11.00	51	25.50	72	36.00	39	19.50	16	08.00	200
Ambulance Service	32	16.00	79	39.50	64	32.00	21	10.50	04	02.00	200
Hospital Service	33	16.50	54	27.00	89	44.50	11	05.50	13	06.50	200

Source: Compiled from Schedule

Interpretation: Enquiries made towards various medical facilities (which includes Routine checkup, First-Aid, Medicine supplied, Ambulance service, and Hospital services) reveals that out of sampled respondents, 21 respondents were highly satisfied with the Routine checkup facility, 50 respondents were only satisfied, 60 respondents were neutral about their opinion, 48 were Dissatisfied and remaining 21 respondents were highly dissatisfied. While opinion towards First-Aid facilities, 39 respondents were highly satisfied, 66 respondents were satisfied, 70 respondents had a neutral opinion, 21 respondents were dissatisfied, and the remaining 4 were highly dissatisfied. About

22 respondents were highly satisfied with the supply of Medicine, 51 respondents were satisfied, 72 respondents had a neutral opinion, 39 were dissatisfied, and the remaining 16 were highly dissatisfied with the facility. In case of Ambulance services, about 32 respondents were highly satisfied, 79 respondents were satisfied, and 64 respondents had a neutral opinion, while 21 respondents were dissatisfied and the remaining 4 respondents were highly dissatisfied. It is observed that 33 respondents were highly satisfied with the Hospital service, 54 respondents were satisfied, 89 respondents were neutral, 11 respondents were dissatisfied, and 13 respondents were highly dissatisfied with the hospital service of the estate.

Drinking Water Facilities

Table 14: Satisfaction of the Respondents about Drinking Water Facilities

Satisfaction about Drinking Water Facilities		
Particulars	No. of Respondents	Percentage (%)
Yes	131	65.50
No	69	34.50
Total	200	100.00

Source: Compiled from Schedule

Interpretation:

The above table speaks that out of 200 respondents, 131 respondents positively responded that they are satisfied with the drinking water facilities provided to the workers, and 69 respondents negatively responded about the statement.

Sanitary Facilities

Table 15: Opinion about the Sanitary Facilities in the Tea Garden

Opinion about the Sanitary Facilities in the Tea Garden		
Particulars	No. of Respondents	Percentage (%)
Highly Satisfied	32	16.00
Satisfied	53	26.50
Neutral	74	37.00

Dissatisfied	32	16.00
Highly Dissatisfied	09	04.50
Total	200	100.00

Source: Compiled from Schedule

Interpretation: The above table reveals that out of sampled respondents, 32 respondents confirmed that respondents are highly satisfied with the sanitary facilities in the factory. 53 respondents mentioned that the respondents are satisfied with the sanitary facilities provided by the authority, and 74 respondents were neutral in their opinion. 32 respondents were dissatisfied with the sanitary facilities, and 9 respondents were highly dissatisfied with the facilities.

Findings and Suggestions:

Suggestions

- According to the study, only 5.5% of the labour force was HS-passed and 62% of them had their education level below class VIII, so it is important for the authority to educate their labour force.
- Women should be provided with more facilities such as maternity and childcare benefits.
- According to the Plantation Labour Act of 1951, every tea garden must have a welfare officer to look after the availability of necessary welfare facilities to the people, but there is no welfare officer available in the Cossipore Tea Estate, which should be taken into consideration by the Garden authority.
- Recreational facilities should be increased to boost the morale of the employees and to relieve them from work and family stress.
- Canteen services should be provided in the garden for all the workers as it is a compulsory requirement stated under the Plantation Labour Act. 1951.
- Garden workers must be provided with adequate health and sanitary facilities as per the provisions mentioned under the Plantation Labour Act, 1951.

- Medical staff should be increased to deal with emergency cases.
- The concerned authorities should take steps to improve the existing recreational facilities to make employees feel relaxed and stress-free, and spend quality time with their friends and families.

Conclusion

The tea industry of Assam, which employs the maximum labour workforce in the state, has always lagged behind other labour communities in terms of development. Since the tea business is still in its most developing stages, its workers must be empowered to maintain the industry's steady growth. One of the major reasons for the under development of workers is the lack of awareness about various welfare schemes framed by the Government. Women are mostly not aware of the maternity and childcare benefits, especially those implemented for the labourers. In addition to these, certain essential facilities such as canteen facilities, transport services, and infrastructure facilities are not so improved, which should be taken into consideration. Workers are also disappointed with the present wage system and they find it difficult to maintain their livelihood properly. Awareness campaigns can be organized to empower people about their social, economic, and political rights. Therefore, efforts should be made by the competent authorities to provide welfare facilities to the workers to improve their quality of life.

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From Struggle to Strength: The Journey of Women in Rural Assam in Shaping Financial Stability Through Economic Independence

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Abstract

Economic independence plays a crucial role in poverty reduction and enhancing women's status in society, enabling them to participate in decision-making processes, contributing to gender equality, and improving their overall quality of life. In India, women's participation in economic activities is often viewed as a silent revolution, empowering them through income-generating endeavours, fostering self-sufficiency, and ensuring financial stability. This study aims to highlight the transformative power of women's economic participation in improving their financial independence and social status in rural Assam. Based on a survey of 2,192 respondents from 135 villages across 27 districts of Assam, conducted using a multi-stage area sampling technique, the study reveals that while weaving, poultry, and dairy farming are common activities among rural women, younger women are increasingly drawn to modern sectors like baking and beauty parlours. The findings show that women's contributions have notably increased household income, with some respondents earning over Rs. 5000 per month through various

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economic activities. This has significantly contributed towards their financial independence and stability. Further, majority of respondents were able to save regularly thereby demonstrating the positive impact of participation in various economic activities on their financial stability.

Keywords: Women; rural Assam; economic activities; Financial wellbeing.

Introduction

Economic independence is considered critical for poverty reduction and for enhancing women's status in the society. As per the estimates made by International Labour Organisation (2015), rural women comprise one-quarter of the world's population. Interestingly, rural women, unlike women in urban areas, are less likely to engage in wage employment compared to their male counterparts. And this is more predominant in case of married women. However, it is believed that women would be financially independent and eventually enjoy financial security only when they are engaged in productive activities. This is because pursuing various economic activities provides women with a fair degree of economic and financial autonomy and thereby enabling them to organise and mobilise for social change in an articulated manner. In fact, financial autonomy paves the way to gender equality as well, which eventually enhances the quality of life of women in the society.

The process of women empowerment by undertaking various economic sustenance activities can be considered as a silent revolution – a revolution that has changed the facet of 'Indian women' and ushered a ray of hope and vibrant energy amid the ranks of women of every class. This revolution has spread an active impulse of self-sufficiency and women from every nook and corner of the country came forward to join hands for the enlightenment and betterment of their sisters, which they feel can be achieved by pursuing various income generating and livelihood promoting activities. Thus, when we talk of "today's woman", the picture that comes to our mind is that of a woman, who is devoid of prejudices, a contributor towards the family income and an active participant in the decision-making process in the family. However, in reality, this is not so. In fact, women empowerment in India is still an illusion. Though the women of North East India are considerably

better off than their counterparts in other parts of the country, but their participation in the decision-making process is almost negligible. Customary laws prevalent in the country although allow Indian women a certain degree of freedom but they debar them from decision-making at the community and village level. It is quite significant to note that although Indian women have been making an indispensable contribution towards their families as home-makers, such a role is rarely appreciated or acknowledged. Moreover, the role of a home-maker is non-remunerative. Therefore, so long women are not financially independent or do not make any significant contribution towards the family income (it may be from traditional activities like weaving, agriculture, rearing of cattle or poultry etc. on her own), she would hardly enjoy financial stability or a role in decision-making process in her family. Interestingly, Indian women realised it and as such they are inclined to take up various income generating activities within the existing constraints. In this context, various schemes floated by the Government as well as Microfinance Institutions, Non Governmental Organisations and Self Help Groups play an active role. Small amount of financial/non-financial grants from these institutions enabled women folk to pursue various part-time income generating and livelihood sustenance activities apart from being a full-time homemaker. Moreover, microfinance schemes provided the much-needed impetus for pursuing various livelihood sustenance activities by rural women, which has resulted in the rise of a new workforce – the women worker – is crystallising into clarity.

Thus, the current study tries to highlight women's engagement in economic activities and how significantly such endeavours enhance their financial stability.

Review of Literature

Women in rural India play a dual role – producers of goods and services as well as their domestic chores and wives and mothers. Unfortunately, their contribution to economic development has been neglected (Gupta & Gupta, 1987). Rural women, is often seen to play a key role in supporting their households and communities in achieving food and nutrition security, generating income, and improving rural livelihoods and their overall well-being. In fact,

their contribution to rural economy is immense and as such they may be considered as active players in achieving Millennium Development Goals.

Over the years, it has been seen that rural women have joined the bandwagon of active work-force of our economy. It is not a matter of choice but because of several competing environmental forces. With the deterioration in living standards in rural areas, the challenge of maintaining traditional patterns of family life became increasingly difficult. Thus, under the pressure of extreme poverty, the household itself often begins to disintegrate, with male members of the family making a transition towards towns and cities in search of alternative sources of income. This, however, left the females to fend for themselves and their families (Youssef & Hetler, 1984) and thereby forcing women to seek wage employment outside the home or to undertake home-based income-generating activities.

It is often seen that women have little or no access to economic assets owing to gender-based stereotypes and societal discrimination that debar women's equitable access to and control over land and other productive resources in households. However, by using their rich indigenous knowledge to increase agricultural productivity, and also by undertaking non-agricultural activities such as sewing grass mats, producing beadwork and the construction of roads etc. (Dyubhele, le Roux and Mears, 2009), they are able to make significant contributions to their family income and somehow manage to find this important route to escape poverty. Here, it is worth mentioning that the diversity of livelihoods is an important feature of rural survival but often overlooked by the architects of country's economic and development policy.

Diversity is closely allied to flexibility, resilience and stability. In this sense, diverse livelihood systems are less vulnerable than undiversified ones; they are also likely to prove more sustainable over time precisely because they allow for positive adaptation to changing circumstances (Ellis, 1999). Perhaps this is the reason why livelihoods perspectives are considered to be central to rural development thinking (Scoones, 2009) in almost all countries of the world. The Government of India, in its effort to remove the rural and urban disparity and ensuring a minimum quality of life, has launched the National Rural Livelihoods Mission (NRLM)

under the Ministry of Rural Development (MoRD). The mission aims at creating efficient and effective institutional platforms of the rural poor enabling them to increase household income through sustainable livelihood enhancements and improved access to financial and selected public services. NRLM has set out with an agenda to reach out, and mobilise seventy million BPL households into self-managed Self Help Groups (SHGs) and federal institutions and support them through livelihood collectives. In addition, the poor would be facilitated to achieve increased access to their rights, entitlements and public services, diversified risk and better social indicators of empowerment. NRLM also aims at harnessing the innate capabilities of the poor and complements them with capacities (information, knowledge, skills, tools, finance and collectivisation) to deal with the rapidly changing external world.

Thus, today, women in rural Assam are more focused to enhance their economic independence by undertaking various income generating activities. Over the years, the traditional means of livelihood – agriculture – is slowing and gradually supplemented by other non-farm activities in rural Assam. These includes rearing livestock, poultry, dairy farming, goatery, piggyery, handloom and handicrafts, silk-worm rearing and they even do not hesitate to set up shops/stalls and beauty parlours. To sum up, it can be said that women in rural areas of Assam has ushered a new movement – a movement to become financially independent, which they believe can be achieved if they take up various income generating activities and contribute towards their family income.

Objectives of the Study

The objective of the study is to examine the type of economic activities undertaken by women in rural Assam and its impact on their financial wellbeing.

Research Methodology

The study is based on primary and secondary data and carried out in rural areas across 27 districts of Assam. For selecting the samples of the study, multi-stage area sampling technique was adopted. This sampling technique was adopted in order to

ensure that the samples selected were an unbiased and proper representation of the population considered for the study.

The state of Assam has 31 (thirty-one) districts. Twenty-seven districts, which is approximately 87 per cent of the total districts, were considered for the study. Moreover, each of these 27 districts has several villages and under each village there are several numbers of households/families. Efforts were made to select respondents representing different income segment from each village through multi-stage area sampling technique as discussed below –

First Stage Sampling: There are 31 districts in Assam. These 31 districts were first arranged in alphabetic order and each district was assigned a number. Thereafter, through random number generator, 27 (twenty-seven) districts were selected. This was done to ensure that at least more than 85 percent of total districts of Assam are selected for the research.

Second Stage Sampling: In each of these 27 (twenty-seven) districts that were selected for the study, there are a number of villages. Out of those villages, 5 (five) villages from each district were selected for the study. These 5 villages were selected based on accessibility from the district head-quarters/nearest town. Moreover, efforts were made to ensure that the villages were not adjutant to each other.

Third Stage Sampling: In the third stage sampling, from each of these 135 (one hundred and thirty-five) villages, 15 to 20 respondents were selected. Finally, a sample of 2,192 respondents, one from each household, was considered for this study. This was after discarding 87 questionnaires for incomplete responses. Further, the respondent from the households under each village were selected based on a combination of stratified random sampling and judgemental sampling techniques. Stratified random sampling technique was used to ensure that the respondents selected for the study is a proper representation of the population having different income levels. Judgemental sampling was actually used to corroborate whether the respondent belonged to a particular stratum or not. For deciding this, the Gaonbura (Village Headman) of the village was consulted.

Interview technique was used to collect the responses but a structured questionnaire was used to keep the interview in track.

Findings

(a) Demographical profile of the population

Assam is land of cultural diversity with people from different communities live harmoniously in the state. Apart from Assamese people, the respondents of the study belong to different ethnic groups/communities. In this study, 64.69 per cent of the respondents were non-tribal and belonged mainly to the Assamese community while the rest of the respondents belonged to various indigenous tribal communities like Bodo, Kachari, Moran, Dimasa, Adivasi etc. Further, most of the respondents were in the age group of 25 to 35 years and 35 to 45 years (68.3 per cent taken together); mostly married (83.9 per cent); and 50.1 per cent of the respondents were educated up to the 10th Standard.

(b) Economic activities undertaken

Women, since ages, are found to devote their time and energy in performing house-hold chores and are having an insignificant role in the decision-making process of their family. However, women realised that in order to improve their quality of life, they need to be financially independent. All the respondents, who were part of this study, are pursuing various livelihood/economic sustenance activities. The type of economic activities undertaken by the women folk in rural Assam are shown in the table below –

Table 1: Economic activities undertaken by the Respondents

Economic activities	Frequency	Percentage (%)
Weaving	1048	34.9
Poultry	796	26.5
Piggery	136	4.5
Goatery	346	11.5
Dairy	328	10.9
Shops/Stalls	50	1.7
Plant Nursery	4	0.1
Tailoring	54	1.8

Fishery	18	0.6
Apiary	16	0.5
Tea Plantation	22	0.7
Agriculture	78	2.6
Mushroom Cultivation	32	1.1
Beauty Parlour	6	0.2
Tuition	14	0.5
Bakery	18	0.6
Rice Beer making	16	0.5
Silk Worm rearing	22	0.7

Source: Author's Survey

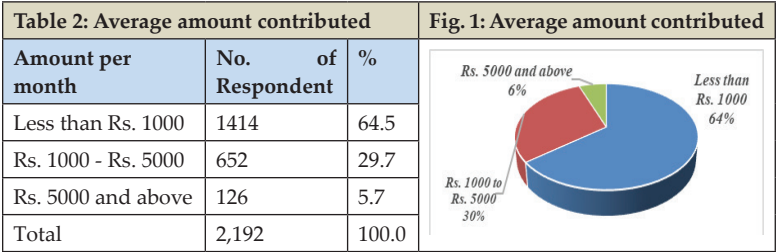
Interestingly, women are found to be involved with multiple economic activities for their livelihood. A total of 606 respondents were found to have taken up several types of economic activities which they carry out simultaneously.

The survey reveals that the activities undertaken by the respondents include weaving (34.9 per cent), poultry (26.5 per cent), goatery (11.5 per cent), dairy farming (10.9 per cent) etc. Interactions with the respondents revealed that majority of them had taken up weaving as an activity because of the fact that weaving being a traditional activity of Assamese society, they already possessed the necessary skills and were confident that they would be able to excel in this field. Moreover, weaving is an activity that can be carried out without leaving one's house. Thus, in this process of earning an extra income to supplement their family income, they were also able to discharge their responsibilities efficiently as home makers.

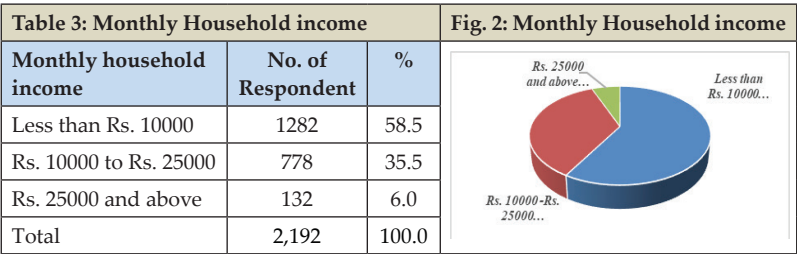
Another fact that came to light is that younger women are more attracted to modern economic activities like baking and beauty parlour – that fetches more income. Their education, their exposure to the urban lifestyle and even skill-based training programme proved to be effective in their cases.

(c) Earnings from participation in various economic activities and -financial independence

As women took up different economic activities, they started to contribute an amount towards their family income. Their contribution may be a small amount but it may be considered to be significant.



Analysis of the data reveal that majority of the respondents (64.5 per cent) have contributed an amount of up to Rs. 1000 per month. There are a few respondents (5.7 per cent) who were able to contribute even more than Rs. 5000 per month. With contributions from the female members of the family, the monthly household income has also increased substantially. This was revealed by the respondents themselves and are shown in the table and figure below –



So far monthly household income of the respondents is concerned, it has been found that majority of the families (58.5 per cent) have a monthly household income of up to Rs. 10,000. The amount is considered to be significant because many of the respondents have their own source of agricultural produce, which reduce their dependence on market purchases.

Efforts are also made in this study to know whether monetary contribution by the female members towards their family income is statistically significant or not.

Table 4: Chi square test to find association of income of the respondents and their Household Income

Chi-Square Tests			
	Value	df	Asymptotic Significance (2- sided)
Pearson Chi-Square	261.905 ^a	4	.000
Likelihood Ratio	195.413	4	.000
Linear-by-Linear Association	167.435	1	.000
N of Valid Cases	2192		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.59.			

Source: Output of SPSS 26.0

Chi square test reveals that although women contribute a small amount towards their family income, yet the amount of their contribution is found to be statistically significant.

As women in rural Assam started to contribute towards their household income, respondents reveal that they started to enjoy not only financial autonomy but also took part in decision-making of their family. This is because women who have taken up various income generating activities, have been empowered to make purchases not only for their families but also for themselves. In fact, respondents occasionally purchase biscuits and other snacks for their families and also made petty purchases like nail polish, bangles, earrings etc. for themselves. This can be seen from the table and chart given below –

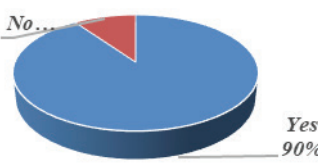
Table 5: Buy food items for their family			Table 6: Buy items for herself		
Option	No. of Respondent	Percentage	Option	No. of Respondent	Percentage
Yes	1,736	79.2	Yes	1,856	84.7
No	456	20.8	No	336	15.3
Total	2,192	100.0	Total	2,192	100.0

Source: Author's Survey

Further, a significant percentage of the respondents reveal that they often make such purchases even without prior permission from their husband.

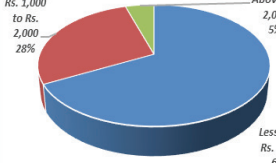
(d) Savings of Individual respondents and their financial stability

It is an accepted fact that savings results in economic security and financial stability. However, some of the respondents are not able to save even a small amount due to their economic hardships. The table below shows that a small percentage of the respondents are not able to save any amount even after undertaking economic activities on their own –

Table 7: Monetary savings of respondents			Fig. 3: Monetary Savings of Respondents
Money Saved	No. of Respondent	%	
Yes	1978	90.2	
No	214	9.8	
Total	2,192	100.0	

Interestingly, in spite of acknowledging the fact that savings is important to meet any unforeseen eventualities by almost all respondents, 9.8 percent of the respondents fail to do so. The reason that was highlighted by this group of respondents is that with increased cost of living, they somehow manage to meet their basic requirements and do not have any surplus amount to save.

However, most of the respondents, in spite of their economic hardships, try to save an affordable amount on a periodic basis. The average monthly savings of the respondents is shown below –

Table 8: Average monthly savings by individual respondents			Fig. 4: Average monthly savings by individual respondents
Average monthly savings	No. of Respondent	%	
Less than Rs. 1,000	1330	67.2	
Rs. 1,000 to Rs. 2,000	554	28.0	
Above Rs. 2,000	94	4.8	
Total	1978	100.0	

Source: Author's Survey

Majority of the respondents (67.2 per cent) are able to save a meagre amount of up to Rs. 1000 per month. However, there are

a few respondents who are able to save up to Rs. 2000 and even more every month.

Another interesting fact that has emerged from the study is that those women who make sincere efforts to save, they prefer to save in multiple savings options. Some are found to save money even in more than two savings options. Analysis of data revealed that a total of 892 respondents out of 1978 respondents, who are able to save, saves in multiple savings alternatives. The saving alternatives preferred by the respondents are shown in the table below –

Table 9: Savings Alternatives			Fig. 5: Savings Alternatives	
Preferred Saving Options	No. of Respondent	%		
With self	1,064	53.79		
Self Help Groups	884	44.69		
Micro Finance Institutes	58	2.93		
Post Office	32	1.62		
Banks	1,188	60.06		

Source: Author's Survey

Respondents prefer to save their money mostly in banks (60.06 per cent) and with themselves (53.79 per cent). They also save money with Self Help Groups (44.69 per cent). However, efforts were made to make them understand about the demerits of saving money with themselves.

Again, with increased individual savings, it is expected that the household savings would also improve further. Interactions with the respondents reveal that their household savings have improved once they were able to contribute monetarily to their families.

Conclusion

Women, in rural Assam have taken up various economic activities in order to become financially independent and at the same time contribute an amount towards their family income. Many of the respondents prefer to take up economic activities without having to leave their residence. Perhaps this was the reason why

many of the respondents have taken up weaving as an economic activity. Moreover, weaving is a traditional activity in Assamese household and many of the respondents have learnt this art at a very young age.

Interestingly, it has been found that most of the respondents have contributed towards their family income. In spite of having an income, some of the respondents have failed to develop the habit of savings owing to their economic hardships. However, those respondents, who are able to save an amount, prefer to save in multiple savings options. Thus, in short, it can be said that women in rural Assam are financially independent to a considerable extent and this was possible after they have taken up various economic activities. Further, financial independence has paved the way to financial stability and all these were possible after they started to pursue various economic activities.

Acknowledgement

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Discovering Voices from the Margins: The Role of Media in Addressing the Issues of Social Protection among the Tea Garden Laborers of Assam

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Abstract

Tea is rooted in a very particular way in the lives and culture of various people in India. Tea plantation is still ongoing and shares a large part of Assam's economy. Planting is an intensive process of labor. Assam's tea plantations have a distinct type of labor participation and a specific social history. Colonial administration brought labors from outside the state. In Assam, the working condition of plantation labor has been wretched from the very beginning. Although a number of welfare programs and social protection schemes have been introduced by the government, it has not done much to help the tea garden workers. This study is a theoretical attempt using secondary data to analyse the impact of media in the implementation of social protection schemes. It employed techniques of both quantitative and qualitative research. This paper discusses the social development of the Assam's tea garden labor. It also examines various welfare schemes and analyzes the social conditions of tea garden labor. Health and education, among the many are considered as important social development indicators. This paper looks at their problems amidst various government-floated social welfare program and examines future

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implications with special reference to the tea garden laborers of Assam using secondary data sources from journals, research reports, news websites and so on. Finally, it poses some pertinent questions and gives valuable suggestions about how to tackle the problems of tea garden labour.

Keywords: *Development, Marginalization, Media, Plantation, Social Protection, Tea-Tribe.*

Introduction

The plantation industry in India, especially the tea industry is a product of colonization. Its discovery in 1823 in Assam was followed by an unprecedented expansion of the industry in various parts of the region. Tea plantation in Assam has a distinct form of involvement of labour and has a particular social history. Colonial administration brought in labourers from outside Assam especially the Chotanagpur plateau region including but not limited to states such as Bihar, Madhya Pradesh, Uttar Pradesh, Orissa, Andhra Pradesh and Bengal. These indentured laborers were outsourced because the local people of Assam at the time were allegedly lazy who were either economically affluent possessing cultivable land or were status conscious of working as cheap laborers due to their illustrious past under the Ahom rule. (Das, 2013)

The living condition of the plantation labour since then, has generally been poor. Even though the government has introduced several welfare programmes and social protection schemes, it has not percolated down much to help the tea garden labourers. This research will be looking at the various aspects of the social protection schemes will also analyse the social conditions of tea garden labour. Health and education, among the many are considered as important social development indicators. This paper looks at their problems amidst various government-floated social welfare program and examines future implications with special reference to the tea garden labourers of Assam using secondary data sources from journals, research reports, news websites and so on.. Finally, it poses some pertinent questions and gives valuable suggestions about how to tackle the problems of tea garden labour.

Social formation of Tea Plantation labour in Colonial Assam

Tea plantation still continues and shares a major part of the economy in few Indian states. One of them is Assam. It is widely agreed that plantations of any kind including tea was an invention of colonial regime all over world. Similarly in colonial India, Indigo and tea plantations were promoted. British planters tried to engage the native tribal as well as non-tribal peasantry as labourers in the plantations, the repressive environment prevailing in the tea gardens failed to lure the natives (Sharma 2012). Britishers tried to bring in Chinese labourers to serve as plantation workers but they failed. Then they started looking for the alternatives as the local population, but they were perceived as lazy. Chatterjee and Das Gupta write 'the planters raised a hue and cry about local labour due to the alleged unwillingness of Assamese agricultural labourers to work in tea gardens'. Assamese were labeled as 'lazy lot' and indifferent to work by Britishers. But the actual reason for not coming to the plantation work in Assam was the high fertility of the soil. Sparse population and low rate of land revenue favoured the peasantry' (Chatterjee and Das Gupta 1981, 1861).

Large numbers of labourers came from the Chhotanagpur region. Over the period they settled into the local conditions. In tea garden of Assam they had their own social system. Bhowmik analyses plantation as a social system and explain its relationship with the state, influence of the working class organisation among the workers. He writes that the planters were able to maintain the plantation system due to four main factors: coercion, migrant labour, isolation and political support. He argues that 'the plantation system is not a static system. In order to understand the change in this system, it is necessary to analyse its relations of production and its linkage to the wider social system' (Bhowmik 1980, 1526).

It is interesting to note that though they are called as tea tribes, they are not listed in the scheduled tribe category. Time to time they demand for the ST status. But it creates more conflict with local tribal groups. It is difficult to understand that though workers in tea garden are known as Tea and Ex-Tea Garden Tribes, there are others who are recognized as Other Backward Classes

by the Government. These people not only constitute a sizable chunk of the population in the State but also play major role in tea production of the State (about 53% of the total tea production of the country) and this contributes to the economy of the State.

Tea Tribes Welfare Department was constituted in 2004 as Administrative Department vide Notification No. AR. 32/2004/34, dated 31-09-2004. A separate budget provision was made under Tea Tribes Welfare Department in the financial year 2005-2006. It has a mandate to accelerate the socio-economic development of the Tea Tribes of Assam. It also aims to enhance employability of the tea tribes, to enhance the education status, to coordinate with other development departments for providing basic amenities like health and hygiene, sanitation, safe drinking water, electricity etc. Sharma writes that 'despite their internal differences they are today referred to as a single community with the nomenclatures like 'Chah Janajati', 'Adivasi', 'Jharkhandi Adivasi'.

The socio economic condition of this community is most deplorable and has been a cause for their further exploitation (Sharma 2012, 292). There are different groups including tribal and non-tribal population in teagarden community. 'Though the mainstream Assamese society and the tea tribes have been enjoying a cordial relationship and the villages of ex-tea garden workers are mostly located near Assamese villages, of late there has been some tension in their relationship on the issue of granting Scheduled Tribe (ST) status to this community' (Sharma 2012, 294).

Concept of 'Marginalization'

In general the term marginalization describes the over actions or tendencies of human societies where people perceive to under reliable or without useful fiction are excluded, i.e. marginalized. The people who are marginalized are outside the existing system of protection and integration. This limits their opportunities and means for survival. The term defined marginalization can be in the following ways -

- 1) **Peter Leonard defines-** *"Marginality as being outside the mainstream of productive activity."*
- 2) **Latin observes-** *"Marginality is so thoroughly demeaning, for economic well-being , for human dignity as well as for physical*

security marginal peoples can always be identified by the members of dominant society and will face irrevocable discrimination."

- 3) **The encyclopedia of public health defines** - *"Marginalization as to be marginalized is to be placed in the margins as thus excluded from the privilege and power found at the center."*
- 4) Merriam Webster's online dictionary defines the term marginalization as *"To relegate to a un important or powerless position within a society or group"*.

Defining Social Protection Schemes

Social security and social protection, these two concepts are used interchangeably in most of the policy writings and academic writings. Social protection is very much in the discourse of policy programmes, *Governance and Social Protection Schemes* since last two decades.

UNICEF defines social protection as *"a set of public actions which address not only income poverty and economic shocks, but also social vulnerability, thus taking into account the inter-relationship between exclusion and poverty."*

Through income or in-kind support and programmes designed to increase access to services (such as health, education and nutrition), social protection helps realize the human rights of children and families. Social protection is concerned with preventing, managing, and overcoming situations that adversely affect people's well-being. Social protection schemes are 'social safety net' and 'protective security'. 'social security' or 'social protection' are not notional, but it is the income of an individual necessary for her/his survival (John and Mansingh 2013). Social protection deals with deprivation, risk and vulnerabilities sickness, old age, unemployment but to secure income food security, employment education social and economic security. There are various social protection schemes are initiated by the government of India such as MGNREGA, PDS, ICDS, NRHM, MDM, IAY and so on.

Governance and Social Protection Schemes

Governance is generally understood as government. But these two things are not the same. Government is a legal authority whereas governance is a process. Here both governmental and

non-governmental actors are involved. Here in this paper, the researcher prefers to use the word governance as various welfare schemes are related to people. So it is important to understand how they perceive various welfare schemes and act on it.

Thandika Mkandawire, Jimí Adésínà critiqued the ‘social protection paradigm’ as the ‘social’ side of neoliberalism – a narrow agenda dominated by conditional and unconditional cash transfers, that originated in safety net responses to structural adjustment programmes in the 1980s. Most social protection interventions target the poor or ‘ultra-poor’; their success is demonstrated through ‘randomised control trial’ impact evaluations and they are disconnected from broader social policy. In Africa, five sets of actors are driving the ‘social protection paradigm’: international financial institutions (e.g. the World Bank), bilateral donors, NGOs (often single-issue advocates), consultants, and lower-level government.

Sajjad Hassan talks about the range of interventions that the Indian government had earlier introduced or upgraded to claims-based legislated rights, notably the Integrated Child Development Scheme (ICDS), the Public Distribution System (PDS) and the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). Unfortunately, there is a disconnect between national-level rhetoric and ground-level realities – in practice, these social protection instruments continue to function as ‘quick fix’ handouts that fail to address the structural causes of poverty, such as inequality, social exclusion and ‘elite capture’ by local power structures. (Hassan, 2011)

Social Protection Schemes in Assam

Various social and economic variables like education, composition of family, availability of basic facilities such as water, sanitation, electricity, income, food habits, nutrition etc needs to taken into consideration for effective implementation of various social protection schemes.

“Fundamentally poverty is a denial of choice and opportunities a violation of human dignity” - U.N.

That is why each and every county of the world have been taking various initiatives and steps for eradication of poverty. Similarly

the Govt. of Assam has taken certain visions for eradication of poverty from the society through a policy document titled "Vision 2030". The poverty status of Assam as per estimation, was 34.4% during 2004 which is reduced to 27.34% in 2015. The reducing rate of poverty during the periods is 0.64%. The Govt. under Vision 2030 desires to reduce it to 0%. Accordingly a target of 1.82% is fixed to eradicate the poverty by 2030.

(Source: Eradication of poverty and Strategy and Action plan on Assam, SDG)

These targets are in conformity with the Goal No. 1.3 of the first SDG (No Poverty) which recommends to *"implement nationally appropriate social protection schemes and measures for all, and by 2030 achieve substantial coverage of the poor and the vulnerable"* (SDGs 2030)

The government of Assam has launched 18 new flagship schemes titled "Astadash Mukuta" in its budget 2020-21 , some of which are listed below –

HIGHLIGHTS OF BUDGET 2020-21

ASTADASH MUKUTAR UNNOYONEE MAALA (18 FLAGSHIP PROGRAMME)

1. Increasing stake of Assam Government in Numaligarh Refinery Ltd

- NRL's origins can be traced back to the historic Assam Accord
- Government of Assam to acquire additional shareholding in NRL to take its total stake to 26%
- Ensure NRL remains a Public Sector Undertaking in the long term
- Capacity to be expanded to 9 MMTPA from present 3 MMTPA capacity
- Rs.1500 Crore earmarked for this scheme



2. Anna Yojana

- Free rice for all beneficiaries under the National Food Security Act
- Total number of beneficiary families : 57 Lakhs
- Ensure nutritional guarantee for all

3. Jyotisman Asom

- Free electricity to all households with monthly consumptions less than 30 units
- Adequate to cover basic electricity needs of a family
- 14 Lakhs families to instantly benefit from scheme: many more to benefit by optimizing their consumption
- Additionally, Government to transfer a subsidy of Rs. 400 Crore to APDCL to insulate consumers from upward revision in tariff.





5. Chah Bagicha Dhan Puraskar Mela

- 7,21,485 Tea Garden workers from 752 gardens received a benefit of Rs. 5000 each during FY 18-19
- To receive another Rs. 3000 each in FY 20-21
- Will drive financial inclusion of Tea Garden workers and inculcate banking habits

6. Welfare Schemes for the Tea Tribes and Adivasi

i. Wage compensation for pregnant women

- Wage compensation expanded from existing 6 months to 9 months
- Compensation increased to Rs. 18,000 to be paid in 6 installments
- Will support pre-natal and post-natal health checkups and provide nutritional security

ii. Educational Benefits

- One-time support of Rs. 10,000 to Tea Tribes & Adivasi students who pass HSLC and HSC exams
- Students will continue to receive same benefit provided they are still pursuing their academic course

iii. Other Schemes

- 14,000 youths to get Rs. 25,000 each for starting entrepreneurial activities; additional 20,000 youths to get the same benefit in FY 20-21



HIGHLIGHTS OF
BUDGET
2020-21

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HIGHLIGHTS OF BUDGET 2020-21

- Smart phones for approx. 4000 Tea Garden Sardars
- Government to facilitate gratuity payment of approx. Rs. 50,000 to Tea Workers
- 300 km of roads in 300 tea garden divisions to be constructed
- 102 new high schools to ensure continuous education to children in tea gardens
- Renovation of 100 football grounds in tea garden areas
- Establishment of District & Block Programme Management Units for effective implementation of schemes



AMOUNT
₹ 150 Cr

7. Arundhati

- Rs. 40,000 in lieu of 1 tola gold to newly-wed brides with annual family income of less than Rs. 5 Lakh.
- Mandatory Registration of Marriage under the Special Marriage Act, 1954.

8. Comprehensive Social Security Schemes

- One time grant of Rs. 25,000 as family assistance to widows and 'Widow Pension' of Rs. 250 per month
- Swahid Kushal Konwar Sarbajanin Briddha Pension Asoni: Rs. 250 per month to citizens above 60 years of age, 13 Lakh senior citizens covered so far. Additional 10% to be covered in FY 20-21
- Deen Dayal Divyang Sahayiya Asoni: Rs. 1000 per month to Divyangs in Assam
- Aideu Handique Mahila Samman Asoni, new pension scheme for unmarried/divorced/separated/single women above the age of 40 years-Rs. 250 per month



AMOUNT
₹ 650 Cr

9. Vistarita Kanaklata Mahila Sabalikaran Asoni

- Revolving fund of Rs. 25000 and Rs. 10000 for female SHGs
- Rs. 50000 to each SHG availing / eligible to avail bank loans, benefiting 1.04 lakh SHGs
- Scooters for Jeevika Sakhis along with monthly allowance of Rs. 500

HIGHLIGHTS OF BUDGET 2020-21

10. Asom Mala

- Transformation of 57.617 Km of State highways and Major District and other Roads
- Rs. 250 Crore for upgradation of Industrial Roads in 7 districts
- 1000 timber bridges to be converted to RCC structures



AMOUNT
₹ 550 Cr

11. Pragyani Bharati

- Admission fee waiver, free textbooks and uniforms in Government Schools
- Rs. 1000 to 1 Lakh students for textbooks
- Textbook assistance of Rs. 1500 and Rs. 2000 for student at graduate and post graduate levels
- Rs. 1000 per month to all students towards their mess dues
- One time Education Loan Subsidy of Rs. 50000
- Scooties to 20000 top ranked female students in Class 12th

12. Assam Cancer Care Foundation

- 3 tier Cancer Care Grid
- State contributed Rs. 550 Crore and Rs. 250 Crore by Tata Trusts so far
- Construction in progress in 8 districts, Phase 1 within 2020-21
- Unified Technology Platform; 34,544 detections in 3 years



AMOUNT
₹ 148 Cr



AMOUNT
₹ 500 Cr

13. Bhraman Sarathi

- Free and dedicated bus services for women and senior citizens in Guwahati
- Pink buses in busiest routes will provide safe and comfortable rides
- Free ride in ASTC for youth appearing in examination / interviews

14. Asom Darshan

- Development of tourist spots and religious places of all faiths
- Rs. 10 Lakh transferred for infrastructure development to 915 religious institutions
- Rs. 2 Lakh Annuity Grant for each Devalaya in 2020-21
- Rs. 2.5 Lakh to 8000 Namghars for infrastructure
- Rs. 614 Crore for road connectivity improvement



HIGHLIGHTS OF
BUDGET
2020-21

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HIGHLIGHTS OF BUDGET 2020-21

15. Yuva Arohan

- Development of entrepreneurial mindset in youth for a 'Resurgent Assam'
- Introduction of 'Entrepreneurship' as a curricular subject from Class XI onwards
- 'Nano-entrepreneurship Grant' as Seed Capital for real life projects



AMOUNT
₹ 315 Cr



AMOUNT
₹ 140 Cr

16. Sonali Shaishab Rupali Pathsala

- Infrastructure development grant to school management committee
- Upgradation to be completed by October, 2020
- School infrastructure upgradation at Rs.25 Lakh per School for 200 Elementary Schools on pilot basis

17. Teachers Provincialization Drive

- Provincialisation of services of all teachers within August 2020
- Provincialisation of 20,288 teachers under consideration



AMOUNT
₹ 2800 Cr



18. Orunodoi

- Tectonic shift in Governance delivery and poverty alleviation
- Minimum guarantee to the poorest for nutrition and health
- Annually Rs. 10000 to 27 lakh poor households through Direct Benefit Transfer
- Rs. 400 for medicines and Rs. 430 for pulses, sugar and fruits & vegetables
- Transfer of money directly to the primary care-takers of households i.e. women

HIGHLIGHTS OF
BUDGET
2020-21

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Given below are a few of the existing welfare and social protection schemes. These schemes directly or indirectly affect the tea garden community as a whole –

- ☐ PMAY
- ☐ MGNREGS
- ☐ Assam Chah Bagichar Dhan Puraskar Mela Scheme
- ☐ Assam Moitiri Scheme
- ☐ Pradhan Mantri Ujjwala Yojana
- ☐ Financial Assistance for Higher Studies
- ☐ Grants to Women SHGs
- ☐ Orunodoi
- ☐ Wage Compensation scheme for pregnant women of tea gardens
- ☐ Awareness Programme on Child/Human Trafficking, Family Planning, Legal Awareness, Health etc.

Objectives

1. To identify the socio-economic condition of tea-garden labourers relevant to the government welfare/development schemes.
2. To examine the extent of the implementation of the various government development/social protection schemes?
3. To find out the resilience of the tea garden labourers to various issues vis-à-vis education, health, occupational health hazards etc.
4. To find an efficient way to implement the various government welfare/social protection schemes.

Methodology

The paper employs theoretical discussion and interpretation of data qualitatively by looking at the problems of the tea garden labourers of Assam amidst various government-floated social welfare program and examines future implications with special reference to using secondary data sources from journals, research reports, news websites and so on.

Social Relevance:

This particular research article titled '*Voices from the Margins : The Role of Media in addressing the issues of Social Protection among the Tea Garden laborers of Assam*' aims to look at the various aspects of the social protection schemes floated by the government for the welfare of the tea garden labourers.

The tea tribe community has been one of the most marginalized group of people in this region and elsewhere in our country. Even though a lot of research work has been done with respect to various aspects of their lives, it leaves a lot to be desired for. Even though we can call plantation to be a somewhat organized sector in other countries, the same cannot be said about India. The guidelines and/or recommendations of the Plantation Labour Act of 1951 are hardly being adhered to even after all these years. As a result this group of people has been vulnerable to socio-economic conditions. Decline in the tea industry since the 2000s and with the onset of the Corona Virus Pandemic the future looks grim for them unless the government steps in and tries to mitigate some of the issues. An in depth study to analyse the condition of this community needs to be done so as to effectively trigger policy changes in the immediate future.

Existing and proposed welfare policies :

Social protection needs to be more than a palliative agenda for alleviating poverty and vulnerability, believing instead that social protection should be fundamentally interested in realising economic and social rights for all. This alternative agenda is one grounded in social justice, and it opens space for understanding how issues of rights, governance, distribution and access are critical for breaking the production and reproduction of vulnerability over time. (Devereux, S. et al. ,2011)

However in reality social protection remains insufficiently focused on achieving social justice outcomes, in terms of both objectives and implementation. The primary goal of most social protection interventions is to protect minimum subsistence in low-income households

Social protection can do more than help poor and vulnerable people to manage risk in the short term; it can – and should – also

tackle the underlying causes of their vulnerability. Since many sources of risk and vulnerability are social and political, this makes it imperative to understand the sociopolitical context and to engage with the holders of power and the drivers of inequality, to achieve socially equitable outcomes.

Deepta Chopra in her article argued that the MGNREGS in India has limited potential to contribute to establishing social contracts, partly because of confusion about what it actually is – anti-poverty measure, job creation scheme, rural development programme, social protection intervention or flagship government programme? The ‘transformative’ feature of MGNREGS is not the employment it offers, but the empowerment that derives from the right to demand work. (Chopra, 2011).

Building on this, Nidhi Vij showed how the introduction of ‘social audits’ to MGNREGS has created a platform for participatory governance. Social audits give villagers a ‘voice’ to hold local administrations and programme implementers accountable for delivery, empowering poor people and potentially transforming community-level social relations and political structures. (Devereux, S. et al. ,2011).

Further Areas of Discussion

On September 2015, world leaders adopted the 2030 Agenda for Sustainable Development, with 17 Sustainable Development Goals (SDGs) to end poverty, protect the planet, and ensure prosperity for all. The 2030 Agenda is universal and applies to all countries of the world, seeking to bring about transformative change to achieve inclusive, people-centred sustainable development with no one left behind. It recognizes that eradicating poverty in all its forms and dimensions, including extreme poverty, is the greatest global challenge and an indispensable requirement for sustainable development.

With the new 2030 Agenda reducing poverty has been transformed from a ‘worthy cause’ to a challenge in the public eye that is much more newsworthy for journalists and all media from the press to TV or radio, from social media to mobile phones and the use of ICT in general. This offers significant opportunities for the media to play a strategic role for eradicate poverty. It aims to ensure social protection for the poor and vulnerable, increase access to

basic services and support people harmed by climate-related extreme events and other economic, social and environmental shocks and disasters.

The concept of “knowledge societies”, according to UNESCO is based on four key principles - freedom of expression, universal access to information and knowledge, respect for cultural and linguistic diversity, and quality education for all. This concept recognizes the crucial role of the media and information and communication technology in creating activities that will expand access to information, contribute to achieving the SDGs, and enable us to eventually bridge the ‘digital divide’, which is far more than a technological issue.

The time has come for all policy actors to recognize and support the vital contribution of the media to help identify innovative strategies to fight poverty particularly in developing countries. The media can play a major role in developing public understanding of economic, social, and environmental issues: The three pillars of sustainable development. It can provide significant opportunities for people who have experienced poverty to have a voice and share their views. These include: Informing a wide range of audiences on poverty reduction issues and providing an inclusive platform and an open forum to share the views and concerns of people living in vulnerable situations.

Conclusion

In today’s era of new technologies, the media, particularly the internet and social media platforms, offer more opportunities. The new media is increasing rapidly and its potential is constantly being developed and modernized. The media plays a central role in informing the public about global, national and local events and is a powerful medium for shaping opinion and policy.

Changes in national policies often come about after a sustained media campaign raising public awareness and causing national debates. High-quality public service and public service journalism in particular should be supported as public goods. Public interest journalism involves media content that provides citizens with access to information on key aspects of public life significantly affecting their well-being and involvement. Numerous examples exist to show how the media, including the widespread use of

new technologies, have contributed to reduce poverty by bringing basic services to people living in vulnerable situations including older persons, persons with disabilities and indigenous peoples.

The media are at the intersection of possible tools and innovations that can be used for a sustainable future. (Strategies for the eradication of poverty to achieve sustainable development for all, The United Nations Division for Social Policy and Development (DSPD), 2017).

Poverty is under-reported in the media and, when it is reported, those facing poverty are often not given the space to explain what it really means. A few points needs to be pondered over.

- How people living in poverty situations can engage with the media to get seen and valued?
- How can the international community best harness the power of media, especially social media and ICTs to educate and transform?

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Consumer Insights on Energy Drinks: A Study of Coca-Cola and Its Market Rivals

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Abstract

The energy beverage industry has seen tremendous growth over the last decade, fuelled by changing tastes of consumers, aggressive promotional activities, and the growing need for convenient energy-boosting products. The following research delves into consumer perceptions about energy drinks with a focus on buying behaviour, brand rivalry, and industry trends, especially among Coca-Cola's Monster Energy and its major competitors like Red Bull and Sting. The study seeks to determine the determinants of consumer decisions, such as taste, price, brand identity, and health benefits perceived. These include taste, which is a key driver of consumer loyalty, making firms launch a variety of flavours. Price is another factor, with high-end brands like Red Bull charging high prices to preserve exclusivity, while Monster Energy follows competitive pricing to appeal to price-sensitive consumers. In addition to this, social media engagement, digital marketing, and branding highly influence consumer sentiments and choices. Market trends are also analysed, such as innovative packaging, advertisement campaigns, and the emergence of new players who provide healthier choices with natural ingredients and zero-sugar products. The research further explores how consumers'

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behaviour is influenced by influencer partnerships and digital marketing, especially among youth. Regulatory issues involving caffeine and sugar levels are also taken into consideration, presenting the move towards more healthy energy drink compositions. Findings are informative of consumer opinions and trends, proposing recommendations to industry participants on improving marketing strategy, product portfolios, and competitive edge amid a dynamic marketplace. This research ultimately seeks to assist energy drink companies in keeping up with changing consumer needs and maintaining long-term growth in the market.

Keywords: *Consumer Perceptions, Buying Behaviour, Brand Rivalry, Digital Marketing, Pricing Strategies, Regulatory Issues.*

Introduction

Energy drinks have become a prominent segment in the global beverage industry, gaining popularity among consumers seeking an instant boost of energy and alertness. Over the past decade, the demand for energy drinks has surged, particularly among young adults, athletes, and working professionals. This trend is driven by various factors, including evolving consumer preferences, aggressive marketing strategies, and the increasing need for convenient energy-boosting beverages. Key players like Coca-Cola's Monster Energy, Red Bull, and other industry players have kept on innovating to attract and hold onto their market share. The current research examines consumer knowledge of energy drinks, assessing drivers of purchasing behaviour, competition among brands, and industry trends.

One of the most important goals of this study is to determine what drives consumer choices in energy drinks. Consumers have various factors to consider before picking a brand, including taste, price, image, and health benefits. Among them, taste continues to be the overriding consideration that drives consumers' loyalty to brands. Variety of Flavours in a product and its sensory stimulation greatly influence buying again, thus forcing brands to create several varieties. Pricing is also an important factor, with top brands like Red Bull keeping the price high to symbolize exclusivity, and alternatives like Monster Energy appealing to price-sensitive consumers with bigger packs and lower costs. Beyond these factors, brand identity and marketing campaigns influence the consumer image, so endorsements and advertising

become key aspects in the energy drink market. Another significant aspect of this research is the examination of market trends and the positioning of top energy drink companies in the market. Firms use different strategies to drive their competitiveness, such as new product innovation, brand packaging, and advertising campaigns. For example, Coca-Cola's Monster Energy has increased its popularity using intense and intimidating branding, appealing to young, active consumers through sponsorship of extreme sports and influencer partnerships. Conversely, Red Bull has been established as a premium brand with streamlined, minimalist packaging and strong identification with adventure sports and high-energy events. The research also discusses the emergence of new entrants and how they disrupt existing brands by providing alternative selling points in the form of natural ingredients, sugar-free variants, or environmentally friendly packaging.

Along with market trends and consumer tastes, this study aims to investigate how marketing and brand strategies influence consumer purchasing behaviour. Social media and digital marketing have changed the face of how energy drink brands connect with their customers. Instagram, TikTok, and YouTube are important platforms for generating brand awareness and loyalty. Influencer marketing, celebrity product placements, and esports sponsorships are now part of brand promotion, especially for the younger generations. The purpose of this research is to learn how such marketing strategies influence consumer thoughts and whether they drive purchasing behaviour. Additionally, packing appearance and labelling also play a significant role in influencing consumer decisions. While some brands go for a bright and provocative appearance, others opt for simple and health-oriented packaging to target various consumer groups. With increasing health awareness, the energy drink market is increasingly under the scanner with regards to ingredients like caffeine and sugar levels. Consumers have grown more health-aware, causing a preference shift toward healthier options. This has led large brands to roll out zero-sugar versions, plant-based versions, and vitamin-infused versions to appeal to health-focused consumers. Regulatory issues also affect the industry, as governments place stricter regulations on marketing, labelling, and ingredient information. Knowing the attitudes of consumers

towards these factors is crucial for energy drink brands to evolve and survive in a changing market. With this research, significant understanding of consumer behaviours, market dynamics, and branding tactics will be revealed. With an analysis of major determinants of consumer purchases and assessment of the strategies being utilized by prominent brands, the research gives an extensive picture of the energy drinks market. With the revelations of the findings, industry stakeholders can fine-tune their strategies in order to capture the demands of consumers efficiently and maintain competitiveness within the competitive marketplace. In the long run, this research hopes to highlight how the brands of energy drinks can improve their products and integrate themselves into consumer demands in a constantly evolving market.

Literature Review:

Smith, J. & Brown, R. (2021) discussed the changing trends of the energy drinks market, the primary determinants that shape consumer choice, including taste, brand image, and health issues. The research points out how top brands such as Coca-Cola's Monster Energy and Red Bull have sustained their market leadership through specific marketing strategies and ongoing innovation in products. Through using aggressive branding initiatives and sponsorships, these businesses have been able to capture a wide range of consumers, promoting long-term growth. The study further highlights that with growing health consciousness, businesses are spending on reformulation of products to bridge the taste gap with health-inclined ingredients.

Patel, S. & Williams, L. (2020) discussed how brand image influences consumer decision-making. According to their research, younger consumer groups, notably Gen Z and Millennials, are greatly impacted by aggressive promotion, high-energy branding, and endorsement on social media. Monster Energy by Coca-Cola and Rockstar by PepsiCo have effectively utilized their brand image to maintain market share by undertaking influencer marketing partnerships, sponsorship of extreme sports, and online marketing campaigns. This study demonstrates that brand reputation is a strong driver of purchase intention and customer loyalty in the competitive energy drinks market.

Kim, H. & Park, J. (2019) examined the influence of taste on brand loyalty in the energy drink market. In a survey of 500 consumers, the research identified that flavour diversity has a considerable influence on the decision to repurchase. Coca-Cola's launch of Monster Juice and Ultra series was aimed at meeting different tastes, enabling the brand to appeal to a wider consumer base. The study highlights that while marketing makes a contribution, the final purchasing decision is increasingly influenced by how a product can meet consumer expectations on taste, meaning that brands have to innovate continually to remain in touch.

White, D. & Green, T. (2022) examined the influence of price on energy drink consumption. Their study points out that premium brands such as Red Bull keep their prices high to indicate exclusivity, whereas Coca-Cola's Monster Energy uses competitive pricing by selling more volume at relatively lower prices. This is a strategy that appeals to price-conscious consumers who are looking for value for money. The research indicates that although there is brand loyalty, price is still an important determinant of buying decisions, and companies have to balance perceived quality against affordability to maintain sales growth.

Thompson, M. & Lee, A. (2018) have examined rising consumer consciousness regarding the sugar content and caffeine levels of energy drinks. According to their study, a trend towards healthy alternatives is occurring, leading such brands as Coca-Cola and PepsiCo to create zero-sugar versions and naturally ingredient-based variants. The cause of this phenomenon is the expansion of health-consciousness among consumers who demand functional drinks with less artificial ingredients. The research indicates that firms emphasizing health-focused product innovations are likely to gain long-term customer loyalty in a changing market environment.

Johnson, K. & Hernandez, P. (2021) examined the function of digital marketing in branding energy drinks. Their research underscores how large brands such as Red Bull, Monster Energy, and Rockstar leverage platforms like Instagram, TikTok, and sports sponsorships to target younger demographics. Coca-Cola's Monster Energy, for example, has used influencer partnerships well to promote brand engagement. The study highlights that social media engagement and purposeful online content are

critical tactics to build brand significance among active online consumers.

Garcia, L. & Patel, R. (2020) carried out a study on consumer segmentation within the energy drink industry. According to their findings, Gen Z and Millennials are the biggest groups of consumers, with a penchant for strong Flavours, strong branding, and green initiatives. The research highlights the necessity to understand demographic variation and adjust marketing strategies to suit the same. Companies that integrate sustainability into their business models, for example, by using recyclable packaging or supporting green initiatives, are more likely to appeal to younger consumers who care about corporate responsibility.

Miller, C. & Roberts, J. (2019) examined the function of packaging in energy drink promotion. The research discovered that packaging appearance has a great influence on consumer perception and buying behaviour. Coca-Cola's Monster Energy employs dark, aggressive designs to attract high-energy consumers, while Red Bull utilizes a sleek, minimalist design that appeals to health-conscious purchasers. This study indicates that packaging acts as a silent salesman, reinforcing brand identity and shaping buying decisions through visual attractiveness and perceived functionality.

Wong, T. & Zhang, X. (2023) investigated how government policy and consumer worries affect the purchase of energy drinks. According to their study, concerns like the risks of caffeine overdose, added sugar, and artificial additives affect consumers' purchasing habits. The study points to Coca-Cola's reformulation of some Monster Energy flavours to conform to international health trends, illustrating how regulatory policies and changing consumer trends influence product innovation. The results indicate that firms need to actively respond to regulatory changes in order to sustain consumer confidence and market share.

Nelson, D. & Carter, S. (2022) examined how celebrity endorsements contribute to the sale of energy drinks. Their findings were that such brands as Coca-Cola's Monster Energy and PepsiCo's Rockstar have effectively collaborated with sports personalities who perform extreme sports and musicians to sustain their high-energy brand identity. These endorsements foster

aspirational brand connections, motivating consumer interest and loyalty. The research concludes that celebrity endorsements continue to be a potent marketing weapon, especially among industries that sell to younger and adventure-oriented consumer bases.

Research Objectives:

- To know the market presence of Coca Cola Energy Drinks and its competitor products in the market.
- To know about preference and perception of consumer towards different energy drinks.

Research Methodology

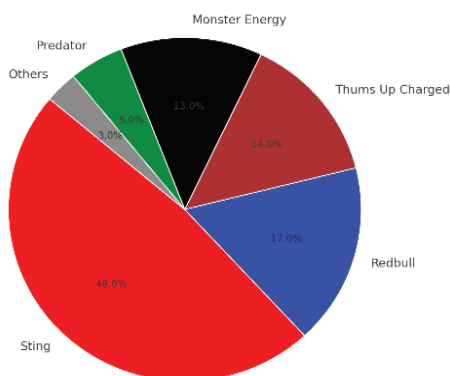
The research uses a primary data methodology to examine consumer perceptions and preferences of Coca-Cola and its rivals' energy drinks. Data were obtained through various means: initially, a survey questionnaire was prepared to obtain responses from consumers of energy drinks within the sampling area with a view to ascertaining their preferences and perceptions. This was followed up with Every Dealer Survey (EDS) for gathering important retailer information, and information was gathered through direct meetings with wholesalers, retailers and consumers. Face-to-face interviews of retailers and department store employees throughout Guwahati city ensured direct interaction and allowed in-depth questioning. Research design was followed with a selective population made up of dwellers and shops found within Guwahati city.

Sample units included distributors, retailers and consumers buying energy drinks in the region. A sample of 100 respondents are collected for the study taking place over a span of one months. The questionnaire was carefully designed, and it included open-ended, Likert scale, and close-ended questions to obtain responses that would effectively respond to the research objectives. In total, this approach guarantees a thorough comprehension of consumer attitudes toward the energy drink industry.

1. Analysis and Interpretation of Results:

Energy Drink	Number of Shops
Sting	48
Redbull	17
Thums Up Charged	14
Monster Energy	13
Predator	5
Others	3

Energy Drink Distribution in Shops



The analysis depicts the distribution of different energy drinks in stores, showing notable market trends. Sting is the leading brand, with 48 stores carrying it, which represents the largest share of the total distribution. Second is Redbull, with 17 stores carrying it, although this is far behind Sting. Thums Up Charged and Monster Energy both demonstrate comparable availability, with 14 and 13 stores stocking them, respectively. Predator is found in a mere 5 stores, being one of the least available brands. Other energy drinks as a whole represent a relatively small share, being found in only 3 stores. This pattern indicates that Sting enjoys strong market presence, while the rest of the brands enjoy comparatively smaller shares. Sting's dominance can be explained by possible reasons including the affordability factor, successful marketing strategies, or consumer preference. While brands such as Predator and others are limited in availability, either due to less demand or distribution issues.

Table: Most Considered factors

Factors in Consideration /Ranks	Excellent (5)	Very Good (4)	Good (3)	Average (2)	Poor (1)
Taste	91	5	2	0	2
Price	51	40	9	0	0
Variety in flavours	31	28	23	18	0
Packaging	23	34	31	12	0
Health Benefits	41	9	32	16	2
Other factors	17	17	47	11	9

Hypotheses:

- **Null Hypothesis (H_0):** There is no association between the factors and the ratings (i.e., the factors do not influence the ratings).
- **Alternative Hypothesis (H_A):** There is a significant association between the factors and the ratings.

Having calculated the Chi-Square Statistic (χ^2) value of 245.47 and getting a p-value of 0.0 (rounded, effectively < 0.001), we went ahead to compare this with the critical value from the Chi-Square distribution table. The critical value is calculated depending on the degrees of freedom (df) and the significance level (α). In this instance, where $df = 20$ and the significance level is $\alpha = 0.05$, the relevant tabulated value of Chi-Square (χ^2) = 31.41. Because the calculated χ^2 value (245.47) is much greater than the tabulated critical value (31.41), and the p-value is well below the 0.05 significance level, we have strong statistical evidence to reject the null hypothesis (H_0). The rejection of the null hypothesis means that there is a significant relationship between the factors and their corresponding ratings. This result implies that the way people score various factors is not a result of random variation but rather depends on the particular factor being measured. That is, the differences observed in ratings are statistically significant, reflecting a dependency between the factors and how they are scored. This finding reinforces the significance of the factors that were studied in influencing individuals' ratings, confirming that differences in responses are not a matter of chance but an actual relationship between the factors themselves and their perceived effect.

Rating in terms of taste by customers

The ratings of customers to various Energy Drinks in terms of their taste were collected to understand the preference of customers towards a brand. The responses are presented in the following table:

Table: Rating in terms of taste

Energy Drinks/ Ranks	Excellent (5)	V e r y Good (4)	Good (3)	Average (2)	Poor (1)
Sting	48	41	7	4	0
Redbull	9	15	57	16	4
Thumps UP Charged	12	46	30	12	0
Monster Energy	8	11	44	28	9
Predator	10	29	25	20	16
Others	9	19	44	19	9

Weighted Mean Scores (WMS) for Taste Ratings:

These ratings point to the collective customer preference of each beverage's taste (larger ratings = better taste experience). The data analysis of taste preference-based consumer ratings shows Sting has the top weighted mean score of 4.33 as the most preferred energy drink by respondents. This implies that the flavour profile is well-received by consumers, possibly because it is sweet, has a distinctive taste, or is generally attractive. After Sting, Thums UP Charged ranks second with a weighted mean score of 3.58, reflecting a high affinity among consumers, although short of Sting. Redbull (3.09) and Others (3.00) fall into moderate acceptance, meaning that though reasonably accepted, they are not in the best class. At the lower preference level, Predator (2.97) and Monster Energy (2.81) have the lowest weighted mean ratings, meaning that these beverages are not preferred in terms of flavour. This could be because of a less desirable taste, a more intense or unknown flavour, or a product that does not meet consumer taste. For instance, Sting had the best taste score (WMS = 4.33), whereas Monster Energy had the worst (WMS = 2.81). This finding is strong evidence that taste preference is biased by brand, and consumers do not equally rate all brands. Generally, the data indicates that consumers prefer energy drinks with sweeter or more recognizable flavours, as evident through

the higher popularity of Sting and Thums UP Charged. In contrast, Monster Energy is ranked lowest, which could be a sign that its flavour is more divisive or less acceptable to the overall consumer taste.

The results of the Chi-Square test indicate a Chi-Square Statistic (χ^2) value of 211.08 with 20 degrees of freedom (df) and a p-value of 0.000 ($p < 0.001$). The large chi-square value reflects a substantial deviation from expected frequencies, i.e., the taste ratings observed are significantly different across brands. The very low p-value confirms strong statistical significance, and one can assert with high probability that these differences by chance are highly unlikely. Therefore, we reject the null hypothesis (H_0), establishing that taste scores are not distributed randomly among brands. Rather, certain brands of energy drinks are rated consistently higher than others, demonstrating unmistakable consumer preference. These results identify taste as a significant driver of brand perception and consumption. Businesses can leverage this knowledge to streamline their product formulation, improve marketing efforts, and more effectively respond to consumer taste preferences to improve brand loyalty and market positioning.

Suggestions and Recommendations:

- 1. Prioritize High-Performing Brands (Sting & Thumps UP Charged):** Sting has the best Weighted Mean Score (WMS) of 4.33, showing high customer preference for its taste. Thumps UP Charged also fared well (WMS = 3.58). These brands need to retain their flavour quality and leverage their high taste ratings in marketing promotions to solidify their competitive edge.
- 2. Enhance Taste for Low-Rated Brands (Monster Energy & Predator):** Monster Energy (WMS = 2.81) and Predator (WMS = 2.97) had the lowest scores in terms of taste. They need to reformulate the flavours or conduct customer feedback surveys to know why their taste is less liked. Introducing new flavours or modifying sweetness, carbonation, or aftertaste could enhance customer perception.
- 3. Capitalize on Consumer Preferences in Marketing:** Brands such as Sting and Thumps UP Charged can emphasize their

better taste in promotional campaigns and on-packaging. They can claim “Voted Best-Tasting Energy Drink” on the basis of customer ratings. Lower-rated competitors can reposition themselves by highlighting other benefits (e.g., health aspects, energy boost, or novel ingredients).

4. **Conduct Further Taste Testing & Regional Analysis:** The research indicates taste preference differs greatly between brands but does not say whether this differs per region or consumer segments. Regional taste preference surveys can assist in flavour customisation for various markets, helping brands.
5. **Provide Taste-Based Variants:** As preferences for taste vary, the companies need to think of introducing several flavour profiles to appeal to more consumers. For instance, a milder, fruitier one for occasional drinkers and an intense, stronger one for serious consumers who enjoy a strong flavour.
6. **Competitive Strategy for Low-Rated Brands:** Monster Energy, Predator, and Others require greater promotional efforts or brand repositioning to win more consumers. Limited-time offer promotional flavours, influencer collaborations, and taste test challenges can reshape consumer perception.
7. **Step Up Product Sampling & Consumer Engagement:** Brands that are lower in taste scores must provide free samples in retail or events to inspire trial and collect direct feedback. Social media campaigns where users can vote for their favourite flavours or recommend amendments can further engage the brand.

Conclusion

The research emphasizes that flavour is a prominent driver of customer preference in the energy drink market, as corroborated by the high correlation between the Chi-Square test values. The drastic difference in flavour ratings among brands indicates that consumers do not experience all energy drinks similarly, corroborating the impact of flavour in driving brand affinity and buying behaviours. Sting and Thums UP Charged brands, with which they performed better on taste ratings, must concentrate on sustaining their competitive advantage by delivering reliable

quality, exercising their favourable brand image, and persisting with product innovation and focused advertisement campaigns to retain consumers. Conversely, lower-rated brands like Monster Energy and Predator can invest in flavour enhancement, product reformulation, and sensory research to improve alignment with consumer taste. To fortify their market position, all brands can gain from active consumer feedback analysis, introducing new or better flavours, and strategic marketing that emphasizes taste as a key differentiator. By emphasizing taste-led product innovation and consumer interaction, energy drink companies can optimize customer satisfaction, foster brand loyalty, and propel long-term market expansion.

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A Critical Discussion on Gender-Based Indices in Understanding and Measuring Gender-Gaps in Context of Backward Economies

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Abstract

This paper is based on a critical survey of the literature on existing indices of measuring Gender-Based Inequalities and Empowerment. The main contribution of this paper is to conceptualize a broader and lay the foundation for a more native (locally sensitive) measure of gender-based inequalities and empowerments, in the backdrop of changing roles of women among rural, semi market-based economies and not-so-industrialized districts in India. The idea that a global index fails to capture the essence of gender-based empowerment among backward economies is raised out of two major concerns - that the ranking of the counties in the global south on the basis of such inequality indices has been persistently low, and that village, semi-industrialized economies with higher distance from urban markets may exhibit a distinct pattern of gender-based empowerment as per the ambit and present definition of 'Empowerment'. And that the global indices fail to account for. Hence, the paper attempts to construct a background study to support the above mentioned proposition and lay down the basis for the construction of a

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more locally specific measure of index that will augment more specific choice of policies based on the same to address local gender-biases in paid work, livelihoods and labor markets.

Keywords: *Gender, Inequalities, Women Empowerment, Backward Economies, Local Specificities, Labor Markets.*

1. Background

The term ‘empowerment’ can be defined as a transformative process that enables individuals to exert influence and take charge of the factors that impact their lives. Theoretically, empowerment encompasses the **augmentation of assets and capabilities among individuals and groups from diverse backgrounds, enabling them to engage, exert influence, and hold institutions accountable for their impact** (see Roy (2016)). In recent years, empowerment has been perceived as an accumulation and transfer of “capabilities”. Especially, the spill-over effects of individual expansions in capabilities over a group deprived of the same, have been highlighted as the basis of empowerment. This is absolutely relevant in context of under-developed or developing economies (see Jayachandran (2015), (Grant, 2010) Olivetti (2016)). Further, the role of “empowerment” in enhancing social capital is highly emphasized (see Janssens (2010))¹.

Empowerment as an expansion of capabilities as postulated by Amartya Sen elaborates the need for agency to women and gender-parities based on institutional changes. This perspective has been focused on and presented elaborately in the writings of Martha Nussbaum and the new school of feminism and gender studies. In regards to women empowerment, there are four dimensions of measurable capabilities that the literature focuses on - economic empowerment, educational empowerment, political empowerment, and social empowerment Duflo (2011). However, the very fundamental basis of empowerment is the access to the basic components of expanding capabilities as proposed by Sen (1995). Economic empowerment refers to women’s ability to access and control economic resources such as land, labour, capital

1 Empowerment is spoken about in the sense of enhancing the access to critical resources for expansion of women’s capabilities in this paper as well as throughout the referred literature. Hence, by the very core definitions of Gender-Based Inequalities and Women’s Empowerment, these concepts are synonymous and mirror images, though negatively correlated.

(credit) and entrepreneurship. Political empowerment refers to women's ability to participate in decision-making processes at all levels, from the local to the national level of governance – as voters and as electoral representatives. Social empowerment refers to women's ability to challenge gender norms and stereotypes through enhancement of their set of capabilities – through access to education, health and employment. Another key dimension of women empowerment in less developed countries has been reproductive and marital autonomy (Doepke, Tertilt & Voena (2012), Jayachandran (2015)).

In India, there has been a specially focused growth in policies initiated to make labor market changes in order to empower women and contribute in supporting their agencies. These policies focus on empowering women through economic autonomy and enhancing their labor market participations – especially, through technical, vocational, managerial training as well as access to financial resources towards entrepreneurship and self-employment (refer Singh et.al (2013)). This policy phenomenon is preceded by two decades of creation and popularization of Self Help Groups (SHGs) among rural and backward communities across India. The perspective among policy -makers today is to achieve a sustainable trajectory of women participation in labor force and women entrepreneurship, which will have significant spill-over in terms of development (for more see Vossenber (2013), Naveed, et.al (2023)).

However, the NSSO data (1970-2018) indicates that an increase in house hold incomes have led to an apparent decline in the “need” for women to work (Nikore, 2019). Further, the lack of technical knowledge, access to internet, nature of jobs allotted to women from low-income households has led to a greater loss in women's employment due to COVID-19 (see Montenov, et.al (2022)). All these suggest that targeted intervention in technical training (skill-development) and financial support towards institutional set up of women-led enterprises will have significant contribution towards women-empowerment in backward economies (see Pareja et. al (2023), Bandiera et al. (2020).). However, the impacts may be thwarted by cultural, epidemiological and local socio-economic factors.

This brings us to the major issue at hand: the eventual impact of looking at agencies of women in under developed or backward economies (economies with large populations and low per capita income, with vulnerable labor markets). The dominant developed economies do not face challenges as does the backward lesser-developed ones. Since women and their labor market participations are globally differentiated across types of economies, the global definitions fail to capture the quintessential understandings and measurements of gender-based 'empowerment' or 'inequalities' among lesser developed countries. According to the Gender Gap Report (2024) published by the World Economic Forum, India ranks 129th in a list of 146 countries. And it is not such a good indication that the second most growing economy, India, with a per capita GDP growth rate of 7.2 % (World Bank Data, 2023) is not exhibiting a balance in major socio-developmental indicators. This leads to an economic outcome more challenging to deal with: the market loses almost 50% of the labor force among the existing population. India's sex ratio stands at 943 females per 1000 males (as per Census 2011). Key findings of Periodic Labour Force Survey (2022-23) suggests LFPR for male in India increased from 75.8% in 2017-18 to 78.5% in 2022-23 and corresponding increase in LFPR for female was from 23.3% to 37.0%. And that projects a definitely large gap to fill.

2. Motivation

In view of the above perspective, it is pertinent to discuss the role of understanding women empowerment as a local phenomenon rather than a global phenomenon. Significant evidences suggest that Gender Gap (Inequality), and henceforth, Gendered Empowerment, cannot be studied as a consequence of a generically set cluster of socio-economic-ethnic factors across different socio-economic well as ethnic structures. With changes in socio-ethnic structures, the livelihood choices as well as observable patterns of patriarchal dominance change. This creates subtle differences in observable patterns of Empowerments across socio-economic structures. This should also be substantially supported by local definitions of Empowerment, specially related to the capabilities and entitlements of women as observed across different economies.

In accounting for the same, this paper aims to develop the conceptual basis for developing a specific structure for measurement and analysis of women empowerment in India as a backward economy. Specifically, a few of the more popular Gender Empowerment and Inequality indices in practice are studied. Affirmation on how these fail to capture may be procured from alternative literature of backward economies and their localized measures of Gender-based Empowerment are used as analogous evidences. A major concern from the perspective of India, is the existence of Empowerment among women among the North-Eastern states of Assam, Tripura, Manipur, Nagaland, Arunachal Pradesh, Mizoram and Meghalaya. This concern prods us to look for deeper interpretations of Women Empowerment as may be relevant in backward economies.

The paper is aimed to generate a theoretical survey of the existing indices, global as well as local, for measurement of Gender Gap (Inequality) and Women Empowerment. This will help us, hereafter, to develop a critical study of the gender-based inequalities against the socio-economic landscape of the North-Eastern states in India. Since, the main aim of this work is to create a measure of gender-based inequalities and empowerment within backward localities, keeping in mind the local specificities in work, livelihood, socio-ethnic traditions in income earnings across genders, hence, it would be hugely insightful to borrow from the existing approaches as well as traditional approaches in doing so. The aim is to select one best measure of Gender-based Inequality or Empowerment Index, and improve upon it to fill up its drawbacks in perspective of the socio-economic-ethnic structure of the above mentioned regions.

This paper is organized in the following sections: Section 3 presents the literature on the existing indices for measurement of Gender Gap (Inequality) and Women Empowerment. The basic indicators as well as the formulae used for the relevant index are critically examined. This section ends by highlighting specific missing indicators that draw our attention. Further in Section 4 we attempt to examine the existing local indices of measuring Gender-Based Inequalities and Empowerment to help us understand how local indices may be optimally constructed to capture locally specific gender-based inequalities. In Section 5, I conclude this study.

3. Gender-Based Indices and their Dimensions: A Critical Assessment of the Literature on the Global Gender Indices

The literature provides evidence for the existence of two primary indicators of Gender-based inequalities introduced by UNDP: In 1995, the United Nations Development Program (UNDP) introduced two significant indices called the Gender Development Index (GDI) and the Gender Empowerment Measure (GEM) as part of their innovative approach. In sync with the UNDP's focus on interpreting developmental consequences across genders, they argued "without engendering human development is endangered." (for more see UNDP 1995). But soon after, there emerged a literature on critiques of these measures and how these fail to capture empowerment among women in backward economies. According to Hirway and Mahadevia (1996), "The initiative of the UNDP in introducing HDR in 1990 therefore is laudable, not only because human development is important, but also because the concern for human well-being was lost in the overzealous pursuit of the economic growth paradigm during the 1980s." However, there remain significant caveats.

The Gender Development Index (GDI) evaluates the disparities between genders in life expectancy, education, and income, essentially extending the Human Development Index (HDI) to include gender sensitivity (for more on this refer to Klassen (2006)). The HDI is a composite index of three basic components, namely,

- i. Longevity measured in life expectancy at birth
- ii Knowledge measured in literacy rate and mean years of schooling
- iii Access to resources measured in per capita income adjusted for the Purchasing Power Parity (PPP).

The GDI measures the achievements of women with respect to the same capabilities while taking note of inequality in the achievements between men and women. That is, GDI is simply HDI discounted or adjusted downwards for gender inequality (see HDR (1995)). The discounting is done with respect to aversion to gender inequality a society can have. Medium gender aversion is accepted by the HDR 1995 and is represented in the index by

the concept termed as epsilon, which takes the value of 2 in the calculation of the GDI.

The Gender Empowerment Measure (GEM) however examines the rate of participation of women actively in the economic and political life and in the decision-making vis-à-vis men in same societies or socio-economic set-ups. Four indicators are included –

- i Percentage of seats in parliament held by women
- ii Percentage of women as administrators and managers
- iii Percentage of women as professionals and technical workers
- iv The percentage of income shared by women

The construction of the two indices were synchronized to achieve both measurement of basic indicators essential for gender-based development as well as its observable impacts in trends and institutional practices as may be observed in a society. Essentially, it may be noticed: “while GDI is expected to focus on expansion of capabilities while GEM is concerned with the use of these capabilities to take advantage of the opportunities in life” (see Hirway and Mahadevia (1996) for more on this).

In the context of the GDI, the 1995 Human Development Report (HDR) acknowledges that “other dimensions of gender inequality such as community life and decision making, consumption of resources within the family, dignity and personal security, are important but not represented by the GDI” (see HDR (1995)). Also, GEM as a measure of empowerment does not include household and community level empowerment aspects, which are critical for gender equality. This lays the initial basis of the study at hand: grass-root level as well as localized measurements of ‘empowerment’ and ‘inequalities’ are to be studied in order to conceptualize more realistic measures of the same.

Gender Empowerment Measure (GEM) - The Gender Empowerment Measure (GEM) is the initial development of an index that aims to gender-based empowerment levels in different countries worldwide. It relies on estimating women’s comparative earnings and their involvement in influential economic roles, as well as their access to professional and parliamentary positions.

Both these indices claimed to measure the level of gender equality and women’s empowerment in a holistic perspective -

based on indicators related to political participation, economic participation, and social empowerment. These indices attempted to measure specifically the disparities in basic capabilities at the global level. Especially, the indices attempted to measure gender disparities as non-access to the basic indicators of development as outlined by Anand and Sen (1995).

However, these indices have been criticized for their technical deficiencies and also their methodological limitations by academicians (see Hirway and Mahadevia (1996), Dijkstra (2002), Blancas (2018)). As, in Branisa et. al. (2014), "Gender inequality is the result of human behavior, and institutions influence how people behave and interact. Thus to understand gender inequality beyond outcomes, one needs to study the institutional basis of gender inequality." To focus on another school of thought, Bericat (2012) elaborates on the much needed focus on the structural basis of gender-based inequalities and a measurement of the same.

The GDI and GEM have been criticized on the basis of several limitations, but a few too important to ignore. A list of such indicators that lost focus in the accountings of GDI and GEM is listed below:

Table 1: An Indicative List of Missing Indicators (Based on author's own study of existing literature)

Missing Indicators	Supporting Literature
Health-based/Mortality indicators	Dijkstra (2002), Tisdell (1999), Blancas (2008), Blancas (2018), Branisa et. al. (2014), Jütting (2006)
Institutionalization of health-care for women or Inequalities caused by Gendered social institutions.	
Equal pay for women	Tisdell (1999), Plasman (2001), Oelz et. al. (2013)
Access to same-skilled jobs	
Age of marriage and child-bearing	Stimpfle (2016), Crandall et.al. , (2016)
Accounting for unpaid work in Labor market participation and other livelihood patterns	Narayan (2017), Cukrowska (2015, 2017)
Crime against women and Domestic violence	Yodanis (2004), Heimer (2000)
Ownership rights and legal property inheritance laws	Cukrowska (2015)

There is a large body of work documenting the literature on the criticism against and limitations of the above indices introduced by UNDP, especially the GDI which is just a adaptation of indicators mainly used in Human Development Index calculations. Moreover, the third-world's view of the relevance of these indices in context of measuring gender-based inequalities in socio-cultural and economic environments endemic to these countries have been ignored. Hirway and Mahadevia (1996), Dijkstra and Hanmer (2000), Schuler (2006), Bardhan and Klassen (1999) offer critical reviews of the deep lacunae inherent in these indices and there has been several changes incorporated in the calculations of GDI since then. To be conclusive, even the study of *inequalities* is thwarted by unequal motivations to capture socio-economic-demographic and cultural specificities across economies.

As a consequence, a series of subsequent other indices were introduced trying to capture essential dimensions in the measurements of gender-based parities, inequalities and women empowerment.

The World Economic Forum introduced the **Global Gender Gap Index (GGGI)** in 2005 with the objective of it serving as a tool to measure and monitor global gender-based inequalities across economic, political, educational, and health-related criteria. In essence, the GGI provides an alternative measure to the Gender Development Index (GDI) and the Gender Empowerment Measure (GEM), as it combines both indices into a single framework while offering additional insights into gender equality.

The GGGI takes into account four key dimensions of female empowerment for its calculation:

- i Economic participation and opportunities
- ii Educational attainment
- iii Political empowerment
- iv Health and survival

Since Income inequality continues to be a major challenge, with the top 1% of the global population holding over 35% of the world's wealth. The World Economic Forum has reported a significant gender-gap in the distribution of income and freedom to decision on consumption expenditures across economies. In response,

the GGGI incorporates indicators to capture the vulnerabilities of women to understand better the ways in which women are deterred from socio-economic and political participations. Gender-based “vulnerability” is defined as the heightened susceptibility of women to negative outcomes due to existing gender inequalities and societal structures, impacting various aspects of life. And it has been identified as a clear deterrent of access of women to work opportunities, livelihood patterns and socio-economic-political participation equal to that of her male counter-parts.

United Nations Development Program (UNDP) introduced the **Gender Inequality Index (GII)** in 2010 by combining indicators from the Gender Development Index (GDI) and the Gender Empowerment Measure (GEM). It included measures of health ‘vulnerabilities’ such as maternal mortality rate and adolescent fertility rate, as well as economic vulnerability through the representation of the labor force participation rate. Empowerment was assessed through indicators such as parliamentary participation and educational attainment at higher levels. These gender-sensitive indices were initially designed as macro-level indicators, and no assessment at the micro-level was conducted until 2012.

The Social Institutions and Gender Index (SIGI), developed by the OECD Development Centre, in 2009 evaluate gender discrimination against women in 179 countries by considering laws, social norms, and practices that limit their rights and opportunities. It provides policymakers, researchers, organizations, and the public with essential data to support decision-making and monitor progress towards Sustainable Development Goal Indicator 5.1.1, which focuses on promoting and enforcing gender equality and women’s empowerment. The SIGI is an official data source along with UN Women and the World Bank Group’s Women Business and the Law for tracking this indicator.

The list of Global indices and their respective dimensions and indicators are presented below for a comparative assessment of the readers.

**Table 2: List of Indices and the respective uses of Indicators
(Sub-Indicators) found across the literature**

Indices	Dimensions	Indicators
Gender Development Index (GDI) UNDP, 1995	Longevity	Life expectancy at birth
	Educational Attainment	Adult literacy rate
		Combined gross enrolment ratio
	Standard of living	Estimated earned income
Gender Empowerment Measure (GEM) UNDP, 1995	Political Participation	Share in national parliament
	Economic Participation	Share in legislators, senior officials, managers
		Share of professional and technical positions
	Standard of Living	Estimated earned income
Global Gender Gap Index (GGGI), 2006	Economic Participation and Opportunity	Labour force participation
		Wage equality for similar work
		Legislators, senior officials and managers
		Professional and technical workers
		Estimated earned income
	Educational Attainment	Literacy rate
		Net primary level enrolment
		Net secondary level enrolment
		Net tertiary level education
	Health and Survival	Healthy life expectancy
		Sex ratio at birth
	Political Empowerment	Women in parliament
		Women in ministerial positions
		Years with female/male head of state (last 50)
Social Institutions and Gender Index (SIGI) OECD, 2009	Discrimination in the Family	Child marriage
		Household responsibilities
		Divorce
		Inheritance
	Restricted Physical Integrity	Violence against women
		Female genital mutilation
		Missing women
		Reproductive autonomy

	Restricted Access to Productive and Financial Resources	Secure access to land assets
		Secure access to non-land assets
		Secure access to formal financial services
		Workplace rights
	Restricted Civil Liberties	Citizenship rights
		Political voice
		Freedom of movement
		Access to justice
Gender Inequality Index(GII) UNDP, 2010	Health	Maternal mortality rate
		Adolescent birth rate
	Empowerment	Share of seats in parliament
		Population with at least some secondary education
	Labour Market	Labour force participation
Gender Equality Index (GEI)* EIGE, 2013	Work	Participation
		Segregation
		Quality of work*
	Money	Financial resources
		Economic situation
	Knowledge	Educational attainment
		Educational attainment
		Lifelong learning*
	Time	Economic activities
		Care activities
		Social activities*
	Power	Political power
		Social power*
		Economic power
	Health	Status
		Behaviour*
		Access
Gender Development Index (GDI) UNDP, 2014	Long and Healthy Life	Life expectancy at birth
	Knowledge	Expected years of schooling
		Mean years of schooling
	Standard of Living	Estimated gross national income (GNI) per capita

Also, we have significant evidence of several other indices that focuses on missing factors of inequality of women such as unpaid work of women. Normative gender roles in different societies and allocation of low paying sectors to employable women population (see Merzel (2000)), gender-based preferences towards access to health, education and work choices (see Merzel (2000)), Islam (2016)) women being the practitioners of regionally specific/traditional economic practices such as handlooms, handicrafts, bamboo work being, etc. that lack scale and industrial operational as well as marketing channels, other regional specificities and the impact of such factors on the labor market outcomes as well as political participatory outcomes for women. However, how these factors are studied – the perspective varies from country to country and especially between developed and developing or under-developed countries based on specific local socio-cultural conditionings and practices.

In essence, this study intends to highlight the fact that a single global index is incompetent to capture regional (socio-economic or ethnic) perspectives of women's inequalities and hence empowerments, especially, the way it may be viewed against the background of backward economies. The dominance of globally developed economy's definitions and ideas of Gender-based inequalities and henceforth, empowerment is only a limitation in measuring the same across socio-cultural diversities of the under-developed or developing economies.

So in the next section, I invite the reader's attention to the existence of the massive literature on the alternative "local" indices of measuring Gender disparities and women empowerment and a critical study of the alternative perspective.

4. Alternative Indices Used for Measuring Gender-Biases and Gender Empowerment: A Critical Review

Despite the wide use of the above listed indices, a growing concern is that different countries as well as distinct socio-economic environments perceive "*vulnerability*" of women differently. And as such there tends to be repeated reformulations of the existing indices and introduction of newer indices to address the gap in measuring inequality and empowerment of women across distinguishable socio-economic-cultural-legal set-ups.

The global indices have a global orientation which renders a common generic attempt at defining gender-based inequalities and empowerment. That is a major drawback in drafting accurate policies in different local economies in order to generate significant impact on the target group. As a result, several economists have introduced country specific re-modulations of the generic indices to accommodate for dimensions of gender-based vulnerabilities that characterizes specific socio-economic as well as livelihood set-ups. This is of some essence as it gives us an idea that locally generated indices will be more suited to representing gender empowerment as a measure of real empowerment of women. However, a serious drawback would be the lack of comparability among different countries or across socio-economic and cultural set ups.

In this regard, this paper also examines the available literature for approaches towards formulations of regional and local indices. A brief review draws attention to measures, dimensions and indicators that could offer insight into the basis of gender-based inequalities across developed and less developed countries. An alternative approach was proposed in Blancas et al. (2008) – in order to measure gender inequality from a fresh perspective; that between women across regions. Even the use of preference functions (a mathematical function that represents the intensity of preference of one region over the others for a given criterion) and decision weighting (a numerical value that expresses the relative importance of each criterion while comparing alternatives or regions) have been interestingly instrumental in providing clearer indications of regional specificities in gender-based inequalities.

Kjeldstad and Kristiansen (2001) had discussed the importance of gender equality index accounting for variations across regions within even within the most developed country of Norway. The paper focuses on accounting for demographic, economic, social, and cultural factors. The use of state-level (regional) indicators of economic, political, and legal gender-based equality are essential for specific policy formulations (see Noia (2002), Frias (2008)). OECD (2019) offers an interesting perspective through inclusion of nature of social institutions in gender index (SIGI) for Asia and the Pacific region, by focusing on formal and informal institutions that shape gender roles and norms. Bella et al. (2021) proposes

a regional gender equality index (R-GEI) for Italy, based on the gender equality index (GEI) introduced by the European Institute for Gender Equality (EIGE).

Gender inequality in Indian context, is significantly influenced by various factors such as culture, religion, caste, class, ethnicity and geography as is found in the studies of Singh & Pattanaik (2020) and Mahanta & Nayak (2013). Various indicators to measure gender inequality in terms of education, health, employment, political participation, **social status and violence** has been employed to adverse effects on women's well-being, human development and economic growth. One exemplary work in this direction, may be cited in Cascella et al. (2021) which uses an Extended Regional Gender Gaps Index (eRGGI) for Italy, by extending the global gender gap index (GGGI) to include new indicators that can capture female empowerment in developed countries. *They found that gender equality varies dramatically across Italian regions, and that using regional specific indices can reveal more nuanced patterns of inequality than using nationally aggregated data or global indices.*

The need to look into the structure of this index may as well be helpful in our understanding of what may be anticipated to be a more compact measure of inequalities and empowerments across gender based on other dimensions not part of the existing major global indices.

1.1 Extended Regional Gender Gaps Index (eRGGI) - As an Alternative Locally Sensitive Index

Sub -Dimensions	Indicators
Economic Participation and Opportunity	Female Labor Force Participation over Male value
	Wage Equality between women and men for similar work
	Female estimated earned income over male value
	Female senior officials or in leadership position in private firm
	Female professional and technical workers over male value

Educational Attainment	Female Literacy rate over Male Value Female net primary enrolment rate over male value (regionally) Female net Secondary enrolment rate over male value Female tertiary enrolment ratio over male value
Health and Survival Sub-Index	Sex ratio at birth (female/male ratios) Female healthy life expectancy over male value
Political Empowerment	Female mayor or president of region over males Women in leadership position at public local administration Number of years with a female head of Municipality or Region (last 50 years) over male value
Use of time	Time dedicated to job Time dedicated to personal care Time dedicated to study Time dedicated to home (e.g., cooking, cleaning, ironing) Time dedicated to social life Time dedicated to hobbies, mass media and sports Time dedicated to travel

What is specifically of interest for the readers is: *the use of indicators that differentiate individuals based on their time-use patterns and gender differences in access to and outcomes in higher education*, besides the often used traditional indicators of participation in labor market and political leadership. The indicators are used as such: 0 indicates perfect gender inequality and 1 indicates perfect equality, whilst values between 0 and 1 indicate inequality in favor of men, and, values greater than 1 indicate inequality in favor of women. For the combination of ratios and calculation of the eRGGI, an average based on natural logarithms of the female-over- male ratios is used to avoid analytical inconsistency. The exponent of the arithmetic mean of the logarithms is then

calculated for each sub-dimension or for the overall index. The formula for calculation of eRGGI is given as follows:

$$eRGGI: \left(\exp \left(\frac{1}{n} \sum_{i=1}^n \ln R_i \right) \right)$$

n = number of components at one level of the index structure. R_i = gender equality ratios of these components. \ln = natural logarithm
 e = natural exponent.

5. Conclusion

This study is a prelude to the forthcoming analytical approach towards conceptualizing a broader and more native measure of gender-based gaps, inequalities and empowerments, in the backdrop of empowerment among rural, semi market-based economies and not-so-industrialized districts in India. The idea that a global index fails to capture the essence of gender-based empowerment among backward economies is raised out of two major observations:

- i That the ranking of the counties in the global south on the basis of such inequality indices has been traditionally very low
- ii That, local (sub-national) economies or semi market-based economies which are also not-so-industrialized economies, may practice gender-based empowerment differently than their counterparts. And that, the global indices do not account for these perspectives.

To be conclusive, the major global indices used for measurement of Gender Gaps and Inequalities, as well as Gender-Based Empowerments are non-inclusive in their conceptualization of the same in distinct economic and demographic environments. And as such, it may be concluded that the ranking of countries may be biased towards the more developed economies, as the scale of measurement is biased in favor of these economies. Though the importance of a globally comparable as well as standardized index cannot be ignored, yet policy formulations are local mechanisms and as such our ignorance of the local specificities in these indices is highly risky for us to ignore any further.

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Data Sources and Important Links:

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