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Fiscal and Financial Stability



Uttar Pradesh - Uttarakhand Economic Association (UPUEA)

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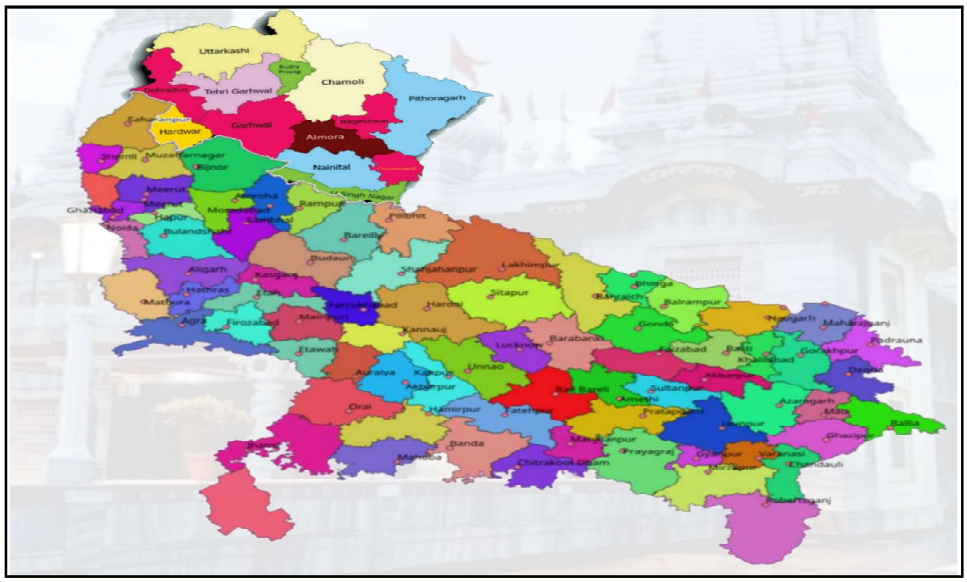
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From Secretary's Desk

Established in 2005, the Uttar Pradesh-Uttarakhand Economic Association (UPUEA) has achieved remarkable growth, flourishing into a premier society of economists. In less than two decades, it has garnered an impressive 3500 life members, a testament to its widespread recognition and influence. Dedicated to advancing economic research across both states, UPUEA actively enriches the field through its publication of research findings, solidifying its role as a pivotal intellectual hub. The UPUEA organizes enriching annual conferences, creating vibrant forums where economists converge to present their latest research, forge valuable collaborations, and engage in stimulating intellectual discourse. Through its unwavering commitment to curating high-quality gatherings and nurturing research collaboration, the UPUEA plays a truly significant role in enriching and advancing economic understanding across both Uttar Pradesh and Uttarakhand.

The Uttar Pradesh-Uttarakhand Economic Association (UPUEA) is gearing up for its 21st Annual National Conference, a three-day event scheduled in the last week of June 2025 (27th-29th June 2025). We have received more than Two Hundred Sixty (260) Research papers under the broad theme of the conference: **"Strengthening Socio-Economic Security for a Resilient India: Challenges and Policy Framework".** This framework must strategically balance continued economic growth with equity and environmental sustainability to ensure a prosperous and inclusive future for all Indians. Researchers and economists have a great opportunity to contribute their expertise by submitting papers on five key sub-themes: *Ecological Sustainability, Fostering Livelihood Security, Fiscal and Financial Stability, and the Indian Knowledge System and Economy and Sustainable Development of Uttar Pradesh and Uttarakhand*While getting papers accepted for publication in our conference proceedings is a major accomplishment, we consistently face the persistent challenge of delayed submissions. This recurring issue of last-minute entries unfortunately disrupts our carefully planned conference schedule and can impact the overall quality of the proceedings. A timely submission is absolutely

crucial for ensuring a smooth and efficient conference experience for everyone involved. To guarantee a seamless conference experience and the prompt publication of all full papers in the proceedings, we kindly urge all interested members to reach out to the General Secretary for any clarifications or the latest updates. Your adherence to the specified page limits will be instrumental in ensuring a truly well-organized and informative conference.

The theme of the UPUEA Conference 2025 serves as a beacon for addressing the socio-economic and environmental challenges of Uttar Pradesh and Uttarakhand. The UPUEA extends its sincere thanks to the numerous funding agencies and institutions whose generous support has been instrumental in facilitating conferences, journal publications, and the printing of conference proceedings. The association is also indebted to *Right Way Publication & Distribution,* New Delhi, for their efficient and timely printing services.



(Vinod Kumar Srivastava)
General Secretary

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Trends in and Patterns of Public Spending on Social Sectors in Uttar Pradesh

Lakshmi Kumari[1] & Prof. Bharti Pandey[2]

ABSTRACT

Social Sector, the backbone of the development, has assumed immense significance in Uttar Pradesh in the past decades. The Development economists and policymakers are unanimous in their view that the development of the social sector is crucial for accelerated economic development. Investment in the social sector by the government is positively related to overall human development. One of the key measures of progress for any nation or area is human development, and social sector spending plays a significant role in advancing human development. Over the years, the government has increased its budget for the social sector. This is partly due to the increasing population demand and the need to address issues like illiteracy, poverty and healthcare access. This study examines the trends and patterns of public expenditure on the social sectors in Uttar Pradesh, focusing on key areas such as education, health, water supply, and sanitation. The present paper also provides a critical evaluation of trends in revenue and capital expenditure of total spending in Uttar Pradesh. Our finding is based on an analysis of time series data of social sector expenditure in Uttar Pradesh over two decades, from 2004-05 to 2023-24. The analysis highlights the importance of well-planned resource allocation and greater visibility to ensure inclusive development and maximize the impact of social sector investment.

Keywords: *Social sector, public spending, Health, Education, GSDP.*

Introduction

Social Sector is the backbone of the development and has assumed immense significance in Uttar Pradesh in the past decades, and investment in the social sector by the government is positively related to human development and promotes the inclusive growth of the state.

Without any proper budgetary provision for the different social sector overheads that provide the necessities such as health and family welfare, education, housing, roads and buildings, nutrition, rural infrastructure, etc., human development is practically impossible. Human development promotes enhancements in people's quality of life by focusing on various health and education metrics. By investing in education, healthcare, and skill development, human resources are transformed into

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human capital, which serves as the primary driver of economic growth. (Eggoh et al. 2015). Human development is a fundamental indicator of progress for any nation, and investing in the social sector is crucial for enhancing human development. Over the years, the government has augmented its budget allocation for the social sectors. This increase is partly attributable to the growing population demands and the necessity to address challenges such as illiteracy, poverty, and healthcare accessibility. This study examines the trends and patterns of public expenditure on the social sectors in Uttar Pradesh, focusing on key areas such as education, health, water supply, and sanitation. The present paper also provides a critical evaluation of trends in revenue and capital expenditure of total spending in Uttar Pradesh. Our finding is based on an analysis of time series data of social sector expenditure in Uttar Pradesh over two decades, from 2004-05 to 2023-24. The analysis highlights the importance of well-planned resource allocation and greater visibility to ensure inclusive development and maximize the impact of social sector investment.

Literature Review

The social sector has not obtained as much weight as it deserves in Indian public finance research; it gained some importance after the new economic policy (1991). Because of the rising concern of inequality and social issues persisting in India, the focus has shifted towards the social sector. "However, in the past 3 decades, particularly after the economic reforms, researchers have shown interest in this area. However, some researchers have worked with different methodologies on the relationship between public expenditure and social development (Akinkugbe and Mohanoe, 2009; Mahmud, 2008; Anand and Ravallion, 1993; Dreze and Sen, 1990; etc). Some studies have been found on the impact of social sector expenditure on human development using proxies of per capita income, education, poverty, inequality, and health (Chattopadhyay, 2018; Agrawal, 2015; Goswami and Bezbaruah, 2011).

Based on the input and output-oriented DEA model by Mohanty and Bhanumurthy (2018), it finds that Uttar Pradesh is among the most deficient states in terms of public spending, as their finding is based on expenditure on social sectors (education, health). Thus, they conclude that if UP increases its social sector outcomes by 20-25 percent, it may push the growth by 2-3 percent further. The government's major responsibility in a developing nation is to enhance people's quality of life by investing in health, education and other social services (Agarwal, 2015). Education and Health are regarded as merit goods with positive externalities, and if it is entirely left on the market, health and education may become inaccessible for poor and vulnerable groups. To ensure fairness and equity for providing education and health or any social services, the government needs to intervene in these sectors (Birdsall et al., 1990).

Objective of the Study

- To analyse the trend and pattern of public spending on the social sector in Uttar Pradesh.

Research Methodology

The present study is based on secondary data, and all the necessary information is gathered from the Annual Publication of the Reserve Bank of India– 'State Finances: A study of Budget',

Annual Budget Document of the Government of Uttar Pradesh. The study is based on time series data over two decades, from 2004-05 to 2023-24, to examine the trend in public spending on the social sector in UP.

Trend in Total Expenditure in Uttar Pradesh

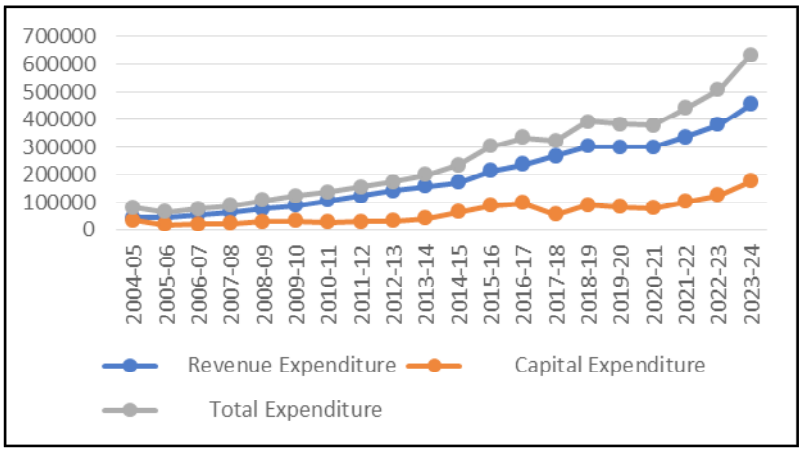
It is necessary to examine the trend of overall expenditure of the economy, as social sector expenditure is associated with it. The table-1 shows the trend in total expenditure, including revenue and capital expenditure in Uttar Pradesh over two decades, from 2004-05 to 2023-24.The figure-1, based on table-1, shows an upward trend in revenue expenditure from 2004-05to 2023-24. A fluctuation has been seen in capital expenditure, as it was 35664.55 crores in 2004-05, then it went down to 28624.11 crores in 2010-11, and then showed an upward trend till 2023-24.

Table 1: Total Expenditure in Uttar Pradesh (Rs. in Crores)

Years	Revenue Expenditure	Capital Expenditure	Total Expenditure
2004-05	44610.35	35664.55	80274.90
2005-06	46617.14	17728.56	64345.70
2006-07	55698.90	20783.76	76482.66
2007-08	65223.21	23061.21	88284.41
2008-09	75968.89	29929.23	105898.12
2009-10	89373.60	33701.66	123075.26
2010-11	107675.61	28624.11	136299.72
2011-12	123885.17	30837.15	154722.32
2012-13	140723.60	33746.58	174470.18
2013-14	158146.90	42502.73	200649.63
2014-15	171027.30	64581.14	235608.44
2015-16	212736.00	88137.80	300873.8
2016-17	236592.26	96832.88	333425.14
2017-18	266223.52	55599.36	321822.88
2018-19	301727.95	89842.66	391570.61
2019-20	298833.04	84518.65	383351.69
2020-21	298543.46	80167.20	378710.66
2021-22	337581.38	102381.85	439963.23
2022-23	379978.06	125927.49	505905.55
2023-24 (RE)	454771.32	177591.05	632362.37

Source: Budget Document, Uttar Pradesh Government.

Figure 1



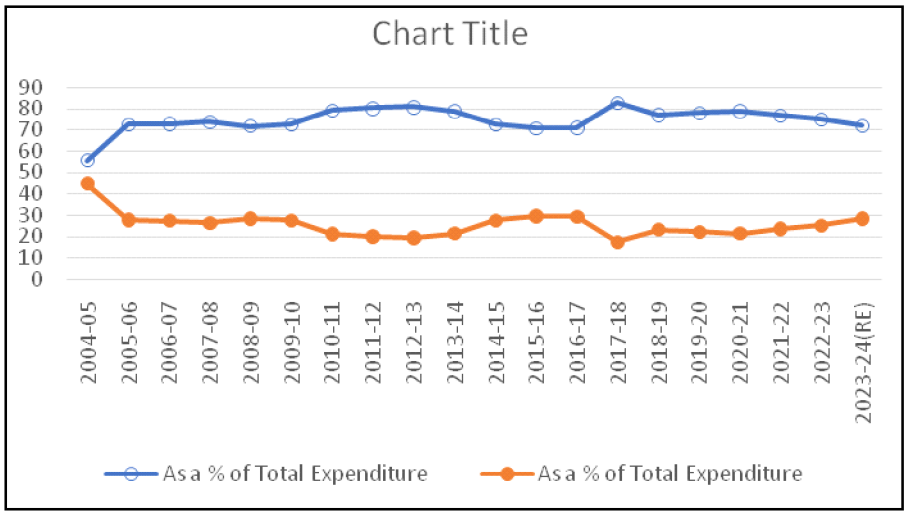
Source: Based on Table 1

Table 2: Revenue and Capita Expenditure as a % of Total Expenditure

Years	As a % of Total Expenditure	
	Revenue Expenditure	Capital Expenditure
2004-05	55.57	44.42
2005-06	72.44	27.55
2006-07	72.83	27.17
2007-08	73.88	26.12
2008-09	71.74	28.26
2009-10	72.62	27.38
2010-11	79.00	21.00
2011-12	80.07	19.93
2012-13	80.66	19.34
2013-14	78.82	21.18
2014-15	72.59	27.41
2015-16	70.71	29.29
2016-17	70.96	29.04
2017-18	82.72	17.27
2018-19	77.05	22.94
2019-20	77.95	22.04
2020-21	78.83	21.16
2021-22	76.72	23.27
2022-23	75.1	24.89
2023-24 (RE)	72.00	28.08

Source: Calculated by the Authors Budget Document, Uttar Pradesh Government.

Figure 2



Source: Based on Table 2

Table & Figure-2 present trends in revenue and capital expenditure as a percentage of total expenditure from 2004-05 to 2023-24. As we can observe, the share of revenue expenditure in total expenditure was increasing till 2012-13; after that, it declined. Similarly, the share of capital expenditure in total expenditure first declined to 19.34 per cent from 44.42 per cent before reaching 28.08 per cent in 2023-24.

Trends in Social Sector Expenditure in Uttar Pradesh

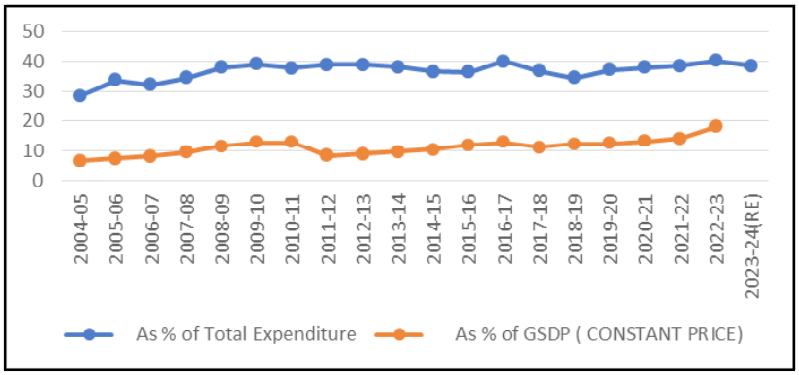
The total spending on the social sector, the share of social sector expenditure in the total State budgetary allocation, and the ratio of gross state domestic product (GSDP) by the State government is shown in table and figre-3. Estimates show that there was a tremendous increase in absolute terms in the social sector expenditure from Rs.16,932 crores in 2004-05 to Rs. 2,75,342 crores in 2023-24.Over the period, public spending on social sector has shown a significant increase in the proportion of GSDP, as it was 6.4 per cent in 2004-05 to 18.05 per cent in 2023-24. Its share in total expenditure has shown a marginal increase from about 28.6 per cent in 2004-05 to 38.5 per cent in 2023-24.

Table 3: Trends in Public Expenditure on Social Sector in Uttar Pradesh

Year	Expenditure on Social Sector (Rs. Crores)	Social Sector Expenditure as % of Total Expenditure	Social Sector Expenditure as % of GSDP
2004-05	16,932	28.6	6.4
2005-06	20,141	33.7	7.2
2006-07	24,032	32.1	8.0
2007-08	30,006	34.4	9.3
2008-09	39,507	37.8	11.4
2009-10	47,250	39.0	12.8
2010-11	50,674	37.7	12.7
2011-12	59,716	38.8	8.2
2012-13	67,436	38.8	8.8
2013-14	76,555	38.1	9.5
2014-15	86,322	36.6	10.3
2015-16	1,08,196	36.3	11.9
2016-17	1,29,756	40.0	12.8
2017-18	1,17,089	36.7	11.08
2018-19	1,34,473	34.4	12.2
2019-20	1,42,288	37.1	12.4
2020-21	1,43,517	37.9	13.1
2021-22	1,69,095	38.5	14.03
2022-23	2,35,607	40.2	18.05
2023-24(RE)	2,75,342	38.5	-

Sources: Calculated by the Authors on the basis of RBI, State Finances Report (Various Issues).
Note: GSDP is at Constant Prices.

Figure 3: Social Sector Expenditure as % of Total Expenditure and GSDP



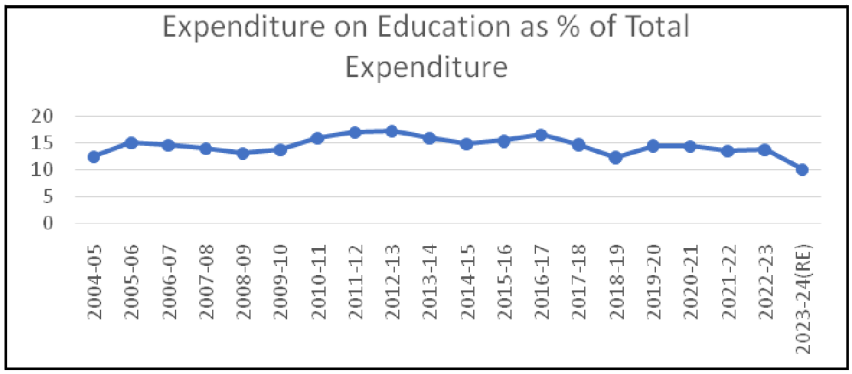
Source: Based on Table 3

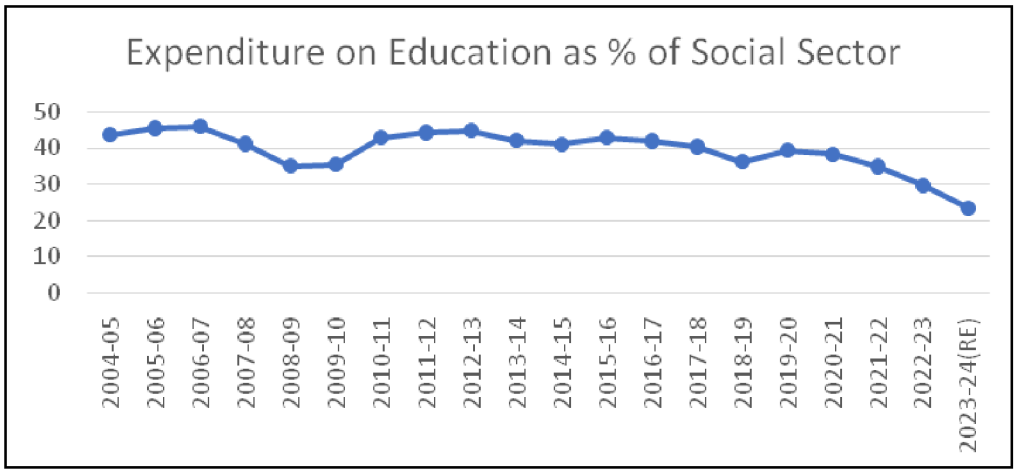
Table 4: Share of Expenditure on Education

Years	Expenditure on Education as % of Total Expenditure	Expenditure on Education as % of Social Sector	Expenditure on Education as % of GSDP
2004-05	12.5	43.58	2.82
2005-06	15.2	45.24	3.27
2006-07	14.7	45.77	3.66
2007-08	14.1	41.08	3.82
2008-09	13.2	35.01	4.01
2009-10	13.8	35.36	4.54
2010-11	16.1	42.75	5.46
2011-12	17.1	44.05	3.63
2012-13	17.3	44.61	3.96
2013-14	16.0	42.01	4.01
2014-15	15.0	40.93	4.23
2015-16	15.5	42.70	5.08
2016-17	16.7	41.80	5.36
2017-18	14.8	40.20	4.45
2018-19	12.4	36.17	4.43
2019-20	14.6	39.20	4.88
2020-21	14.5	38.21	5.01
2021-22	13.6	34.75	4.87
2022-23	13.8	29.71	5.36
2023-24 (RE)	10.2	23.52	-

Source: Calculated by the Authors on the basis of RBI, State Finance Report (Various Issues).
Note: GSDP is at Constant Prices.

Figure-4, 5 and 6 (Based on Table 4)





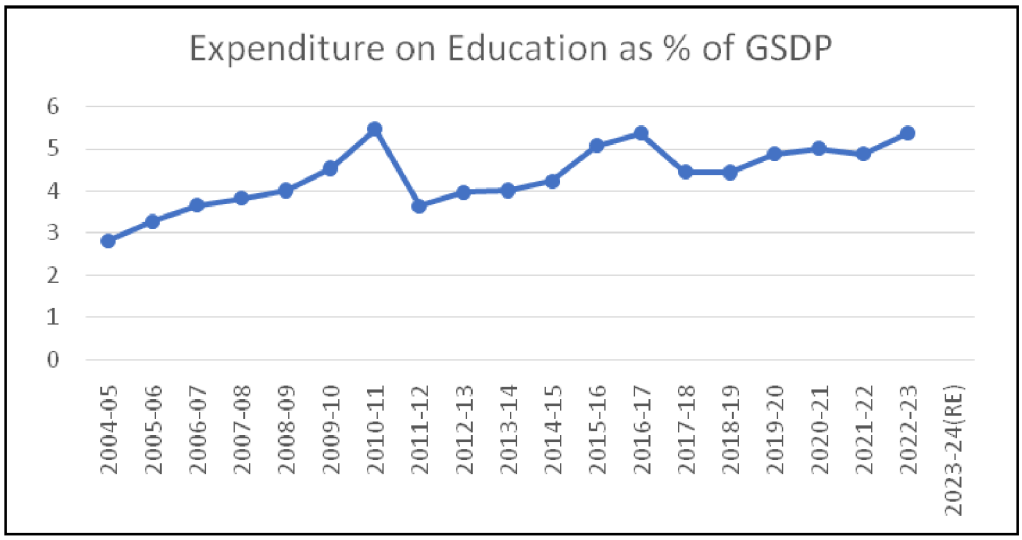


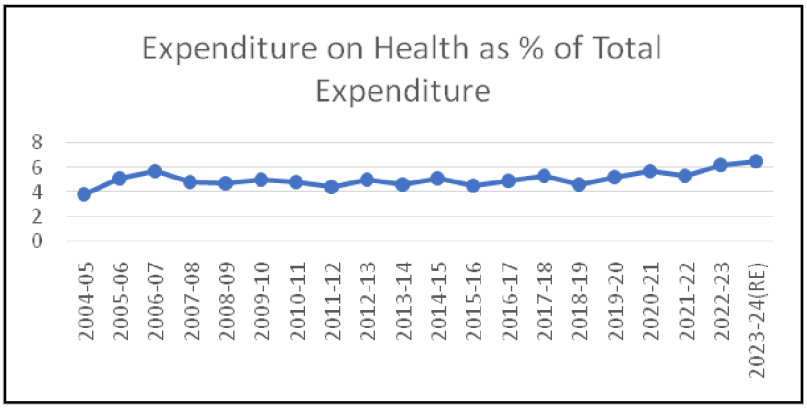
Table-4 illustrates the trends in education spending as a percentage of total expenditure, social sector expenditure and GSDP. Regarding education spending as a percentage of total expenditure, we cannot observe a consistent increase, as it shows fluctuations to some extent. It was 12.5 per cent in 2004-05, increased to 16.7 per cent and then declined till 2023-24. However, the share of education in social sector expenditure peaked at 45.77 per cent in 2006-07 and subsequently decreased to 23.52 per cent in 2023-24. As a percentage of GSDP, it shows an upward trend from 2.82 per cent in 2004-05 to 5.36 per cent in 2022-23.

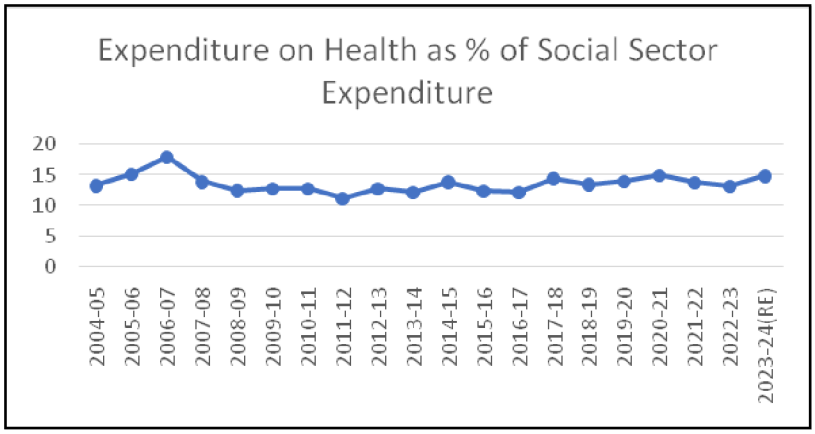
Table 5: Share of Expenditure on Public Health and Family welfare

Years	Expenditure on Health as % of Total Expenditure	Expenditure on Health as% of Social Sector Expenditure	Expenditure on Health as% of GSDP
2004-05	3.8	13.31	0.86
2005-06	5.1	15.22	1.1
2006-07	5.7	17.90	1.43
2007-08	4.8	13.91	1.29
2008-09	4.7	12.48	1.43
2009-10	5.0	12.78	1.64
2010-11	4.8	12.78	1.63
2011-12	4.4	11.24	0.92
2012-13	5.0	12.80	1.13
2013-14	4.6	12.16	1.16
2014-15	5.1	13.87	1.43
2015-16	4.5	12.43	1.48
2016-17	4.9	12.16	1.56
2017-18	5.3	14.43	1.6
2018-19	4.6	13.46	1.64
2019-20	5.2	14.02	1.74
2020-21	5.7	15.01	1.97
2021-22	5.3	13.81	1.93
2022-23	6.2	13.23	2.38
2023-24 (RE)	6.5	14.89	-

Source: Calculated by the Authors on the basis of RBI, State Finance Report (Various Issues).

Figures 7, 8, 9 (Based on Table 5)





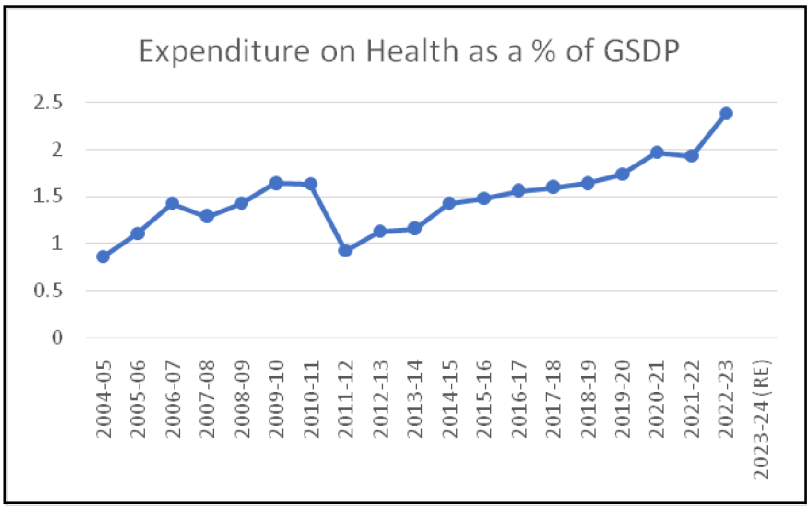


Table-5 along with Figures-7, 8 and 9 shows trends in public spending on health including public health and family welfare. The estimates indicate that the share in total expenditure has shown a barely increase. It was 3.8 per cent in 2004-05 to 6.5 per cent in 2023-24 and expenditure on health as a share of GSDP has shown no notable change and remained stagnant at less than 2 per cent from 2004-05 to 2021-22 but in 2022-23 it jumped to 2.38 per cent. But the share of health in social services recorded a gradual increase from 13.31 per cent to 14.89 percent in 2023-24.

Conclusion

This paper analyzes the trends and patterns of public spending in social sectors over the past two decades. Upon observing the financial allocation for capital and revenue expenditure, we find that the share of revenue expenditure in total expenditure increased till 2012-13; after, it declined. Similarly, the share of capital expenditure in total expenditure first decreased from 44.42 per cent to 19.34 per cent before reaching 28.08 per cent in 2023-24. Estimates show a significant upward trend in absolute terms for social sector, but when we consider the share of the social sector in total expenditure, it hovers around 35 per cent. Additionally, the social sector has exhibited a notable increase in the proportion of GSDP, likely indicating the government's prioritization of this sector. Expenditure on the social sectors, particularly in education and public health, is widely believed to positively impact human development and economic growth; thus, an increase in public spending on social sectors yields better social outcomes. However, in the education sector, the share of education in total expenditure and the social sector displayed a declining trend over the study period; in terms of GSDP, it reflects an upward trend. Despite numerous government efforts, expenditure in the education sector has not increased when compared with the growing population of the states. Conversely, in the health sector, the trend indicates that there has been no significant change in health and family welfare concerning GSDP, remaining stagnant at less than 2 per cent from 2004-05 to 2022-23, except in 2023-24 when it reached 2.38 per cent. It is concluded that without adequate investment in the social sector, such as education and health, no country can be considered properly developed. However, in the case of Uttar Pradesh, we observe that the government expenditure on education and health is still low. To rectify this deficiency, the State government must allocate substantial funds to social sectors and ensure a more effective utilization of the already allocated resources. The share of education as a percentage of GSDP is increasing, which is a positive sign, but in health, it remains stagnant at less than 2 percent. It is crucial for the government to significantly increase spending, as this has a direct impact on the life expectancy of the population.

References

- Agarwal P. (2015). Social Sector Expenditure and Human Development: Empirical Analysis of Indian States. *Indian Journal of Human Development*, Vol. 9, No. 2, pp 173-189.
- Akinkugbe O., MohanoeM. (2009). Public Health Expenditure as a Determinant of Health Status in Lesotho. *Social Work in Public Health*, Vol. 24,No. 1-2, pp 131-147.
- Alam M., Alam D. (2020). Social Sector Expenditure and Human Development: An Analysis of Indian States. *International Journal of Humanities and Social Science Research*, Vol. 6, No. 4,pp 91-97.
- Anand S., Ravallion M. (1993). Human Development in Poor Countries: On the Role of Private Incomes and Public Services. *Journal of Economic Perspectives*,Vol. 7, No. 1, pp 133-150.

- Baldacci E., Guin Siu M.T., Mello L.D. (2003). More on the Effectiveness of Public Spending on Health Care and Education: A Covariance Structure Model. *Journal of International Development,* Vol. 15, No. 6, pp 709-725.
- Birdsall N., James E. (1990). Efficiency and Equity in Social Spending: How and Why Governments Misbehave. *World Bank Publications*, Vol. 274.
- Chattopadhyay S. (2008). Social Sector Expenditure in India in the 2000s: Trends and Implications. *Journal of Development Policy and Practices*, Vol. 3, No. 1, pp 16-40.
- DevS. M., Moji J. (2002). Social Sector Expenditures in the 1990s: An Analysis of Central and State Budgets. *Economic and Political Weekly*, Vol. 37, No. 9, pp 853-66.
- Dreze J., Sen A. (1990). IndiaEconomic Development and Social Opportunity. Clarendon Press Oxford.
- Eggoh J., Houeninvo H., Sossou G.A. (2015). Education, Health and Economic Growth in African Countries. *Journal of Economic Development*, Vol. 40, No. 1, pp 93.
- Goswami B., Bezbaruah M.P. (2011). Social Sector Expenditure and Their Impact on Human Development: The Indian Experience. *Indian Journal of Human Development*, Vol. 5, No. 2.
- Guhan S.(1995). Social Expenditures in the Union Budget. *Economic and Political Weekly*, Vol. 30, No.18-19, pp 1095-1102.
- Gupta S., Clements B., Tiongson E. (1998). Public Spending on Human Development. *Finance and Development*: *A Quarterly Publication of The International Monetary Fund*, Vol. 35, No. 3, pp 10-13.
- Mahmud W. (2008). Social Development in Bangladesh: Pathways, Surprises and Challenges. *Indian Journal of Human Development*, Vol. 2, No. 1.
- Maurya N.K., Jaiswal S. (2022). Public Expenditure in Uttar Pradesh: Trends and Patterns. *Journal of Economic Policy & Research*, Vol. 17, Issue April-September, pp 49-60.
- Mohanty R.K., Bhanumurthy N.R. (2018). Assessing Public Expenditure Efficiency at Indian States. *National Institute of Public Finance and Policy*,New Delhi, NIPFP Working Paper No. 225.
- Ravallion M. (1997). Good and Bad Growth: The Human Development Reports. *World Development*, Vol. 25, No. 5, pp 631-638.
- State Finances: Study of Budgets (Various Years), Reserve Bank of India.
- Union Budget Papers(Various Years), Government of Uttar Pradesh.

An Analytical Study of Non-Performing Assets of Baroda U.P. Gramin Bank

Anushka Gautam[1] & Dr. Balwant Kumar Bari[2]

ABSTRACT

Non-Performing Assets (NPAs) pose significant challenges to the banking sector, particularly in Regional Rural Banks (RRBs) that serve the rural populace. This study conducts an analytical analysis of NPAs in one of the prominent RRBs in Uttar Pradesh: Baroda U.P. Gramin Bank. Utilizing data from 2018 to 2024, the research examines trends in Gross and Net NPAs, evaluates the effectiveness of NPA management strategies, and provides recommendations for enhancing asset quality.

Keywords: *Uttar Pradesh, Non-Performing Assets, Regional Rural Banks, Baroda U.P. Gramin Bank*

Introduction

Regional Rural Banks (RRBs) play a pivotal role in strengthening the rural economy by offering banking services to farmers, artisans, and small-scale industries. They serve as a bridge between the rural population and the formal financial sector. Among the prominent RRBs operating in Uttar Pradesh is **Baroda U.P. Gramin Bank,** and it has undergone structural reforms through amalgamations to increase operational efficiency and outreach.

Baroda U.P. Gramin Bank was formed on April 1, 2020, following the merger of Baroda U.P. Gramin Bank, Purvanchal Bank, and Kashi Gomti Samyut Gramin Bank. Sponsored by Bank of Baroda, it caters to a vast rural clientele spread across eastern Uttar Pradesh. While these banks have expanded their footprint and improved financial inclusion, they face serious challenges related to asset quality, particularly in the form of non-performing assets **(NPAs)**. The rising volume of NPAs hampers their ability to lend, affects profitability, and poses systemic risks. An in-depth analysis of the NPA trends in these banks provides insights into the effectiveness of their credit policies and the need for reformative measures.

The Indian banking sector has witnessed substantial growth over the past decades, yet it grapples with the persistent issue of non-performing assets (NPAs). NPAs adversely affect the profitability and liquidity of banks, undermining their ability to extend credit and support semi-urban populations, which are particularly vulnerable due to their exposure to agriculture and small-scale industries.

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This study focuses on one of the major RRBs in Uttar Pradesh: Baroda U.P. Gramin Bank. By analyzing its NPA trends and management practices, the research aims to identify challenges and propose strategies to enhance financial health and service delivery.

Challenges Faced by the Bank

1. **High Initial NPA Levels**: Post-amalgamation, the bank inherited a significant volume of stressed assets from its predecessor entities, which inflated its gross and net NPA ratios.
2. **Rural Credit Risk**: Serving primarily agricultural and small-scale borrowers, the bank is more susceptible to repayment defaults due to crop failures, seasonal income, and natural calamities.
3. **Limited Technological Infrastructure**: Although improvements are underway, the bank still lags in implementing advanced analytics and monitoring systems for real-time risk assessment.
4. **Recovery Difficulties**: Legal hurdles and the socio-economic nature of its borrower base make it challenging to enforce loan recovery through traditional mechanisms.
5. **Manpower and Training Gaps**: The need for more trained staff in credit risk assessment and asset monitoring affects the bank's ability to handle loans efficiently.

Review of Related Literature

Patidar (2012) examined the impact of priority sector lending on the total nonperforming assets of banks. Multiple regression models and ratio analysis have been used. The result reveals that there is a significant impact of priority sector lending on the total non-performing assets of public sector banks. Along with this impact, priority sector lending in the case of private sector banks was not significant.

Swamy (2013) used the panel data regression technique to analyze the determinants of asset quality and profitability of banks for the years 1997 to 2009. The study shows that priority sector credit and NPAs are not significant.

Abree and Mendes (2000) found that there is a positive similarity between the loans and the profitability of banks.

Wood (2003) found that the higher loan ratio has a negative impact on the profit of banks.

Singh (2016) NPAs in RRBs are influenced by factors such as inadequate credit appraisal, lack of monitoring, and external economic shocks.

Sharma and Goyal (2017) emphasized the role of effective recovery mechanisms and credit risk management in mitigating NPAs.

Research Objectives

The primary objectives of this research are:

1. To analyze the trends in Gross and Net NPAs of Baroda U.P. Gramin Bank from 2018 to 2024.
2. To evaluate the effectiveness of NPA management strategies employed by the bank.
3. To provide recommendations for improving asset quality and reducing NPAs.

Methodology

Research Design

This study adopts a descriptive and analytical research design, utilizing quantitative data to assess NPA trends and management practices.

Data Collection

Secondary data were collected from official bank reports, financial statements, and credible online sources. The data span from the financial years 2020–21 to 2023–24.

Data Analysis Tools

Data were analyzed using Microsoft Excel for trend analysis, percentage calculations, and graphical representations.

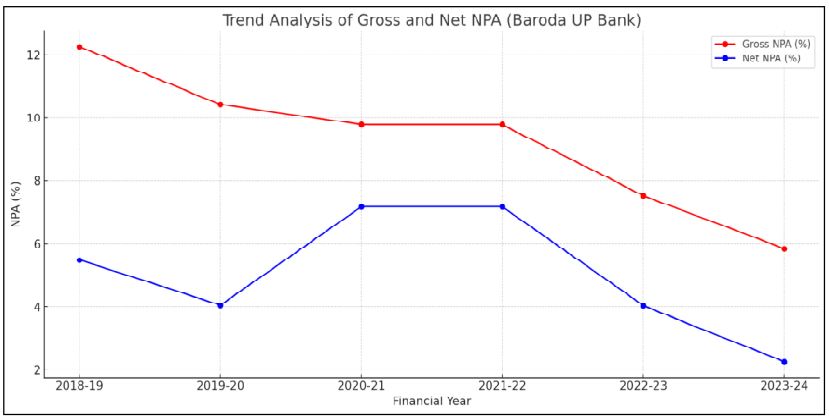
Data Analysis

Baroda U.P. Gramin Bank

Baroda U.P. Gramin Bank, post-amalgamation in 2020, has shown significant growth in its operations. Key financial indicators are as follows:

Table 1: Baroda U.P. Gramin Bank Financial Indicators (2021–2024)

Financial Year	Gross NPA (%)	Net NPA (%)	Total Business (₹ Cr)
2018–19	12.26	5.49	-
2019–20	10.43	4.05	-
2020–21	9.78	7.18	72,015.25
2021–22	9.78	7.18	75,381.52
2022–23	7.53	4.04	85,425.60
2023–24	5.85	2.25	92,986.42



Source: Baroda U.P. Gramin Bank Official Reports

The data indicate a consistent decline in Gross NPA from 9.78% in 2020–21 to 5.75% in 2023–24, reflecting effective NPA management strategies.

The data reflect a consistent decline in both Gross and Net NPA ratios, indicating improved credit management and recovery mechanisms.

The higher NPA levels suggest challenges in credit appraisal and recovery mechanisms.

Key Findings

1. From FY 2018–19 to 2023–24, **Gross NPA** fell from **12.26% to 5.85%**, and **Net NPA** dropped from **5.49% to 2.25%**. This indicates steady improvement in the bank's loan portfolio quality and effective recovery practices.
2. After the 2020 merger, there was a visible impact in terms of business expansion and more aggressive NPA control, likely driven by the consolidated resources and renewed governance.
3. The **total business** increased from around ₹ 72,015 crore in 2020–21 to nearly ₹ 93,000 crore in 2023–24, reflecting a healthy expansion in both deposits and advances.
4. The fall in Net NPA, especially in the last two years, suggests enhanced internal control mechanisms and better credit appraisal procedures.

Challenges interpreted from Data

5. High Initial NPA Burden:

In 2018–19 and 2019–20, the Gross NPA remained above 10%, reflecting a legacy burden of bad loans that took several years to resolve.

6. Stagnant Net NPA (2020–22):

Despite efforts, the Net NPA hovered at **7.18%** during FY 2020–21 and 2021–22, indicating issues in actual recoveries even though overall asset quality was improving.

7. Rural Credit Volatility:

High exposure to agriculture and small borrowers means that despite better management, the bank remains vulnerable to monsoon failures, commodity price crashes, and local economic slowdowns.

8. Infrastructure and HR Gaps:

The slow decline in early years implies limitations in technological integration and lack of well-trained staff in early risk identification and recovery efforts.

Recommendations

1. **Strengthen Credit Appraisal**: Implement rigorous credit assessment procedures to evaluate borrowers' repayment capacity effectively.
2. **Enhance Recovery Mechanisms**: Establish dedicated recovery teams and leverage legal frameworks for efficient NPA resolution.

3. **Adopt Technology Solutions**: Utilize data analytics and credit scoring models to monitor loan performance and predict potential defaults.
4. **Staff Training**: Conduct regular training programs for staff on credit risk management and NPA recovery strategies.
5. **Customer Engagement**: Foster strong relationships with borrowers to understand their financial conditions and provide timely support.

Discussion

The financial data from FY 2018–19 to 2023–24 reveals significant trends in the performance of Baroda UP Bank in managing its Non-Performing Assets (NPAs):

The bank's **Gross NPA** ratio fell from **12.26% in 2018–19** to **5.85% in 2023–24**, and **Net NPA** declined from **5.49% to 2.25%** during the same period. This downward trajectory demonstrates the bank's enhanced credit management, better risk controls, and intensified recovery efforts. The consistent improvement suggests a structural shift in the bank's approach toward asset quality monitoring.

Following its amalgamation in 2020, Baroda UP Bank showed both expansion and operational resilience. Total business volume rose from **₹ 72,015 crore in 2020–21** to **₹ 92,986 crore in 2023–24**, reflecting renewed depositor confidence and lending growth. Despite inheriting stressed assets from predecessor institutions, the bank successfully reduced its NPA burden without compromising on expansion.

The stagnant Net NPA ratio of **7.18%** during FY 2020–21 and 2021–22 indicates initial difficulties in effective recovery post-merger. However, a sharp drop to **2.25%** by FY 2023–24 suggests that systemic reforms—possibly in loan appraisal systems and recovery mechanisms—were gradually implemented and began to yield results.

The bank's clientele is predominantly rural, with a high share of agricultural and priority sector lending. This structure makes the bank vulnerable to external shocks such as erratic monsoons, crop failures, or fluctuating commodity prices, which often lead to loan defaults. While these risks are inherent, their effects are visible in the slow pace of recovery during certain fiscal years.

Initial high NPAs and slow reductions in the early post-merger years point to limitations in staff training, lack of advanced credit-monitoring tools, and systemic inefficiencies in the recovery process. The eventual turnaround was likely supported by focused efforts in digitalization and targeted risk assessment, although full optimization remains a work in progress.

Conclusion

The analysis of Baroda UP Bank's Non-Performing Assets (NPAs) over the period 2018–19 to 2023–24 highlights a significant improvement in asset quality and financial discipline. The consistent reduction in both Gross and Net NPA ratios reflects the bank's proactive efforts in strengthening credit appraisal, recovery mechanisms, and internal risk management systems. Despite challenges such as inherited bad loans, rural economic vulnerabilities, and operational limitations, the bank has demonstrated resilience and adaptability—especially following its structural transformation post-merger.

Furthermore, the steady increase in total business underscores growing customer confidence and effective outreach in rural and semi-urban markets. However, sustaining this progress requires continuous investment in technology, employee training, and borrower education to prevent future asset stress. Going forward, a balanced strategy that integrates credit growth with risk mitigation will be essential to ensuring long-term financial stability and inclusive development through rural banking.

References

1. Indian PSU Bank. (2022). *Baroda U.P. Gramin Bank Audited Business Highlights as on 31.03.2022*.
2. Chaudhary, K. & Sharma, M. (2011). "Performance of Indian Public Sector Banks and Private Sector Banks: A Comparative Study," *International Journal of*
3. *Innovation, Management and Technology*, 2(3), 57-65.
4. D,Jayakkodi. & P,Rengarajan. (2016). "A Study on Non Performing Assets of Select Public and Private Sector Banks in India", *Intercontinental journal of finance research review*, 4(9), 29-38.
5. Haron, S. (2004)." Determinants of Islamic Bank Profitability", *Global Journal of Finance and Economic*, 1(1), 274-291.
6. Hsiu-Ling. (2007)."The impact of financial development and bank characteristics on the operational performance of commercial banks in the Chinese transitional economy", *Journal of Economic Studies*, 4(5), 401-414.
7. Joseph, A. & Prakash, M. (2014)."A Study on Analyzing the Trend of NPA Level in Private Sector Banks and Public Sector Banks", *International Journal of Scientific and Research Publications*, 4 (7), 1-9.
8. Khanna, P. (2012). "Managing nonperforming assets in commercial banks (Apr–Jun 2012) ISSN 2250-348X, *Gian Jyoti E-Journal*, 1(3)

The Impact of UPI Adoption on Financial Inclusion and Household Financial Resilience in Rural Uttar Pradesh

Arvind[1], Dr. Ratan Lal[2], & Dr. Alok Kumar Yadav[3]

ABSTRACT

This study examines the impact of the Unified Payments Interface (UPI) on financial inclusion and household financial resilience in rural Uttar Pradesh. As India experiences a digital transformation in its financial ecosystem, UPI has emerged as a critical tool for expanding access to financial services in underserved areas. The objective of this research is to explore how UPI adoption influences bank account usage, transaction frequency, savings behavior, and the ability of rural households to manage financial shocks. Adopting a descriptive and analytical methodology based on secondary sources—including peer-reviewed journal articles, government data, and fintech research reports—the study investigates both the enabling factors and challenges of UPI use in rural settings. Key drivers identified include increasing smart phone penetration, supportive government schemes, and the role of banking correspondents. However, barriers such as digital illiteracy, gender disparities, and weak internet infrastructure persist.

The findings suggest that UPI has contributed positively to financial inclusion by promoting regular digital transactions, encouraging savings, and enhancing access to formal credit channels. It has also improved financial resilience, particularly by enabling faster responses to emergencies, reducing dependence on informal lending sources, and fostering more disciplined financial behavior. Women, smallholder farmers, and informal sector workers stand out as key beneficiaries when supported with targeted interventions.

The paper concludes that while UPI holds transformative potential, its success in rural areas depends on strengthening digital literacy, enhancing connectivity, and implementing inclusive policies that address structural inequities. The study also highlights the need for future field-based research to assess long-term behavioural impacts and to evaluate integration with other development sectors such as agriculture, health, and education.

Keywords: *UPI, Financial Inclusion, Digital Payments, Rural Resilience*

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INTRODUCTION

India's financial ecosystem has undergone a remarkable digital transformation in recent years, propelled by government policy initiatives and technological innovations. Digital financial services, particularly mobile-based platforms, have emerged as critical enablers of financial inclusion by offering accessible and low-cost financial tools to the underserved population (Gulia & Singh, 2024). One such transformative development is the Unified Payments Interface (UPI)[1]—an instant, real-time mobile payment system introduced by the National Payments Corporation of India (NPCI)[2] in 2016. UPI enables seamless peer-to-peer and peer-to-merchant transactions and allows users to link multiple bank accounts through a single mobile application (Mandal, 2024).

By facilitating low-cost, high-speed digital transactions, UPI has significantly altered the financial inclusion landscape, especially in rural and semi-urban regions. UPI adoption has enhanced the use of formal financial services—such as savings, credit, and insurance—in rural areas, thereby contributing to improved household-level financial resilience (Prasad, Jain, Surana, Shill, Kankariya, & Poddar, 2024). Financial resilience refers to a household's ability to withstand income shocks, manage financial obligations, and recover from economic setbacks. Access to digital financial services through platforms like UPI helps promote financial behavior such as savings, timely credit access, and informed decision-making (Dubey & Gupta, 2024).

Rural Uttar Pradesh characterized by low literacy levels, income instability, and limited access to traditional banking infrastructure, presents a compelling case to evaluate UPI's role in driving inclusive financial growth. Despite being India's most populous state, rural UP lags behind in digital literacy and financial access indicators (Srivastava, Sharma, & Deshpande, 2019). While UPI offers immense potential, challenges such as internet accessibility, smart phone penetration, digital trust, and awareness continue to hinder its full adoption (Vishwakarma, Mishra, Shailendra, & Lal, 2024).

This study investigates how UPI adoption influences financial inclusion and household financial resilience in rural Uttar Pradesh. It examines the extent of digital integration, the impact on coping mechanisms during financial shocks, and identifies key barriers and enablers—such as infrastructure, literacy, and policy support—that affect adoption in these regions.

RESEARCH OBJECTIVES

The objective of this paper is to:

- Measure the extent and patterns of UPI adoption in rural UP.
- Analyze UPI's effect on savings, credit usage, and financial coping strategies.
- Identify policy and infrastructural gaps limiting UPI adoption and suggest strategies for improvement.

LITERATURE REVIEW

The rapid expansion of digital payment systems has played a crucial role in enhancing financial inclusion across India. Various studies have established that digital transactions have bridged access gaps for marginalized populations by reducing the dependency on traditional banking infrastructure. Digital payments have significantly enhanced financial accessibility and inclusion in rural India by

providing low-cost, user-friendly platforms that facilitate secure and efficient transactions (Prasad, Jain, Surana, Shill, Kankariya, & Poddar, 2024).

The introduction of the Unified Payments Interface (UPI) by the National Payments Corporation of India (NPCI) in 2016 marked a major turning point in the country's digital payment ecosystem. UPI offers an interoperable, real-time payment framework that has grown rapidly in both urban and rural contexts. A recent report by Ernst & Young and the Confederation of Indian Industry[3] (EY & CII, 2024) reveals that UPI is now the preferred payment method for 38% of individuals in rural and semi-urban areas, highlighting its increasing reach beyond metro regions. However, despite this reported preference, UPI's active usage in rural areas remains relatively low. According to a study by *Deccan Herald*[4] (DH, 2022), only 3–7% of rural users actively transact via UPI, with major barriers including digital illiteracy, limited smartphone penetration, and inadequate internet connectivity.

The concept of household financial resilience, broadly defined as a household's ability to manage financial stress, maintain economic stability, and recover effectively from income or expenditure shocks, is closely linked to financial inclusion. While digital platforms like UPI have the potential to enhance resilience through better savings, credit access, and financial planning tools, there is limited empirical research that directly explores this relationship in rural Indian contexts. Financial inclusion among rural agricultural households has been assessed, but the specific contribution of UPI to household financial coping mechanisms remains unexamined (Antil, Swain, & Kumar, 2022).

Notably, there exists a critical gap in the literature focusing on the role of UPI in promoting financial inclusion and resilience among rural households in Uttar Pradesh. Most studies tend to generalize findings across states or focus on urban or pan-India trends, overlooking region-specific socioeconomic dynamics and digital challenges that are particularly pronounced in rural UP.

METHODOLOGY

This study adopts a qualitative and secondary data-based approach to examine the impact of UPI adoption on financial inclusion and household financial resilience in rural Uttar Pradesh. It relies on analysis of existing literature, government reports, and journal-based studies to identify patterns, challenges, and outcomes related to digital payment adoption. The focus is on synthesizing evidence from credible sources to draw insights relevant to the rural context of Uttar Pradesh, without conducting primary field surveys or empirical analysis.

UPI ADOPTION TRENDS IN RURAL UTTAR PRADESH

The adoption of the Unified Payments Interface (UPI) in rural Uttar Pradesh has witnessed gradual growth, driven by technological penetration and supportive policy frameworks. According to Gulia and Singh (2024), while UPI adoption in urban areas is robust, rural adoption is still evolving but has shown marked improvement due to increased access to mobile internet and growing trust in digital transactions (Gulia & Singh, 2024). Smartphone penetration plays a pivotal role in this transition. The availability of low-cost smart phones and improved mobile internet coverage has enabled rural users to access UPI platforms with greater ease (Mandal, 2024). Furthermore, government-led initiatives such as the Digital India programme and Pradhan Mantri Jan Dhan Yojana

(PMJDY)[5] have accelerated digital financial literacy and increased the number of bank account holders, setting the foundation for UPI usage. Awareness campaigns under these programmes have particularly helped first-time users in rural areas navigate digital payments confidently (Swapna & Kanthimathinathan, 2025).

Banking agents, or Bank Mitras, serve as intermediaries between rural communities and financial institutions. These agents assist individuals in on boarding onto digital platforms and troubleshooting payment-related issues, enhancing trust and adoption rates (Gulia & Singh, 2024). Additionally, the integration of UPI with local Kirana stores and self-help groups (SHGs) has expanded its practical utility in day-to-day transactions. Access to formal financial services in rural agricultural households is significantly influenced by proximity to financial institutions, socioeconomic status, and awareness levels—factors that also directly impact the adoption of UPI-based services in such regions (Antil, Swain, & Kumar, 2022).

Despite these positive developments, multiple barriers persist. A significant hurdle remains digital literacy, especially among older adults and women in rural households. While younger rural users are relatively more confident in using UPI, the elderly and less-educated groups often depend on intermediaries or avoid digital payments altogether (Vishwakarma, Mishra, Shailendra, & Lal, 2024). Gender disparity is another pressing issue. Women in rural areas face unique challenges, such as restricted access to mobile devices, limited autonomy in financial decision-making, and lower literacy levels, all of which reduce their likelihood of adopting UPI (Swapna & Kanthimathinathan, 2025). Infrastructure challenges further constrain adoption. Inconsistent electricity supply, poor network connectivity, and limited access to banking facilities in remote villages often interrupt transactions or discourage users from embracing digital payments fully (Mandal, 2024). These systemic issues suggest that while the groundwork for UPI adoption is in place, deeper structural improvements are necessary to achieve widespread and inclusive digital financial integration in rural Uttar Pradesh.

IMPACT ON FINANCIAL INCLUSION

The Unified Payments Interface (UPI) has significantly influenced financial inclusion in rural Uttar Pradesh by enhancing bank account usage, increasing digital transaction frequency, and altering savings behavior. Its impact is particularly notable among marginalized groups, including women, small farmers, and informal sector workers.

Bank Account Usage and Digital Transaction Frequency

The introduction of UPI has streamlined banking operations for rural residents, leading to a notable increase in bank account utilization. A report by Ernst & Young and the Confederation of Indian Industry (2024) revealed that UPI is the preferred transaction mode for approximately 38% of individuals in rural and semi-urban India, particularly among those aged 18 to 35 (EY & CII, 2024). This preference indicates a shift from cash-based transactions to digital platforms, fostering greater financial inclusion.

Furthermore, the convenience of UPI has led to more frequent digital transactions. A study by Gulia and Singh (2024) observed that rural users who adopted UPI engaged in digital transactions

more regularly than before, suggesting an increased comfort with digital financial tools (Gulia & Singh, 2024). This shift not only enhances transaction efficiency but also integrates users more deeply into the formal financial system.

Savings Behavior

UPI's ease of use has also influenced savings behavior among rural populations. The seamless nature of digital transactions has encouraged users to manage their finances more effectively, leading to improved savings habits. For instance, the ability to monitor transactions in real-time via mobile applications has heightened financial awareness, prompting more prudent spending and increased savings (Antil, Swain, & Kumar, 2022). However, comprehensive studies quantifying this behavioural change in rural Uttar Pradesh are limited, indicating a need for further research in this area.

Inclusion of Marginalized Groups

UPI has played a pivotal role in integrating marginalized groups into the financial mainstream. Women, in particular, have benefited from UPI's user-friendly interface. The "UPI for Her" initiative by Women's World Banking (2024) identified that approximately 200 million women in India are poised to adopt digital payments, highlighting UPI's potential to enhance women's financial empowerment (WWB, 2024)[6]. Despite this potential, challenges such as financial illiteracy and cultural factors continue to hinder widespread adoption among rural women. Swapna and Kanthimathinathan (2025) found that while rural women recognize UPI's usefulness, these barriers often prevent a positive attitude toward its adoption (Swapna & Kanthimathinathan, 2025).

Additionally, Shome (2024) points out that although UPI has brought convenience and safety to women vendors, it is not a standalone solution. Many still face barriers like access to smartphones and consistent network connectivity (Shome, 2024). Shekhawat (2024) emphasizes that grassroots community networks play a critical role in promoting UPI merchant adoption among women micro entrepreneurs, helping bridge the digital gender divide in financial transactions (Shekhawat, 2024).

Small farmers and informal sector workers have also experienced increased financial inclusion through UPI. The platform's accessibility allows for direct transactions, reducing reliance on intermediaries and minimizing transaction costs. This direct access to financial services enables better financial management and planning, crucial for these groups' economic stability.

Case Studies Illustrating Improved Access and Usage

In Ayodhya, Uttar Pradesh, a targeted project demonstrated UPI's positive impact on women entrepreneurs. The initiative led to a doubling of average monthly transactions among women merchants, from 12 in June 2024 to 24 in December 2024, showcasing enhanced business operations and financial inclusion[7] (WWB, 2024).

Additionally, a study by Citizen Matters[8] focusing on women street vendors in Kolkata and Bengaluru revealed that UPI adoption facilitated more secure and efficient transactions, contributing to increased financial security and business growth (Shome, 2024). These caselets underscore UPI's potential to transform financial practices among marginalized groups in rural settings.

IMPACT ON HOUSEHOLD FINANCIAL RESILIENCE

The adoption of the Unified Payments Interface (UPI) has significantly improved household financial resilience in rural Uttar Pradesh. This resilience manifests in better coping mechanisms during financial shocks, enhanced access to credit, and a shift from informal to formal financial systems.

Coping During Financial Shocks

UPI's real-time digital payment capabilities have helped rural households mobilize funds quickly during crises such as medical emergencies or agricultural losses. This is especially crucial in areas with limited physical banking infrastructure. The ease of transferring money via mobile apps and QR codes enables timely access to funds from relatives, government subsidies, or savings accounts (FE, 2024). Additionally, UPI's integration with insurance platforms has simplified premium payments and claims, improving risk mitigation in rural areas (BFSI, 2024).

Access to Credit and Timely Payments

One of UPI's transformative contributions is enhancing visibility into users' financial behavior, thereby supporting credit scoring and access. A government-backed study found that a 10% rise in UPI transactions correlates with a 7% increase in credit availability for rural users, owing to improved digital trails for financial service providers[9]. The Reserve Bank of India's initiative to link pre-approved credit lines with UPI through small finance banks is expected to ease seasonal borrowing needs, particularly for smallholder farmers[10] (Reuters, 2024).

Moreover, timely payments for agricultural inputs, school fees, or loan instalments via UPI contribute to improved household financial discipline and planning (Soni & Sharma, 2023).

Emergency Fund Building and Reduced Informal Dependency

The simplicity of setting aside small amounts through UPI-linked saving tools has encouraged households to build emergency buffers. In cooperative banks and rural societies, UPI is increasingly being integrated into recurring deposit and micro-savings products, encouraging regular saving habits (Antil, Swain, & Kumar, 2022). This financial buffer helps absorb shocks without turning to high-interest informal lenders.

The shift away from informal lenders is notable. A study by Kumari (2024) in the shows that UPI has enabled access to low-cost microcredit platforms, especially among women-led households, reducing their reliance on local moneylenders (Kumari, 2024). This transition strengthens rural financial ecosystems and reduces long-term financial vulnerability.

POLICY IMPLICATIONS AND RECOMMENDATIONS

To deepen the impact of UPI on financial inclusion and household resilience in rural Uttar Pradesh, a multi-pronged policy approach is essential. Despite the remarkable growth of UPI, challenges such as digital illiteracy, poor internet connectivity, and socio-cultural barriers limit its full potential in underserved regions (Sahoo & Mahakud, 2023).

Firstly, scaling UPI usage requires strengthening the digital infrastructure. The government should prioritize expanding mobile network coverage and subsidizing smartphones through rural digital inclusion schemes. Collaborations between telecom companies and fintech providers can ensure that even remote areas gain seamless access to digital platforms (Sharma & Singh, 2022).

Secondly, digital literacy programs must go beyond one-time workshops. Continuous, community-based training, especially via local banking agents, SHGs, and Anganwadi workers, can ensure better retention and trust in digital payments. Introducing gamified learning apps in regional languages could help promote UPI adoption among rural youth and women (Kumar, Rani, & Mehta, 2022).

Targeted efforts should address gender and income disparities. Women in rural households often lack direct access to mobile phones and bank accounts. Policies that mandate joint mobile ownership, create women-only digital banking camps, and integrate UPI with DBT schemes for women-led households can help close this gap[11] (NABARD, 2023). For low-income groups, micro-incentives—such as cash back for first-time users or UPI-linked food distribution systems—can motivate digital behavior change.

Finally, promoting UPI in agricultural value chains, mandis, and through rural cooperatives can institutionalize its usage in daily transactions. This would transform digital inclusion into long-term financial empowerment.

CONCLUSION

This study highlights the transformative potential of the Unified Payments Interface (UPI) in advancing financial inclusion and strengthening household financial resilience in rural Uttar Pradesh. UPI adoption has facilitated broader access to banking services, improved transaction efficiency, and encouraged the use of digital platforms for savings and credit among rural populations. It has been particularly beneficial for marginalized groups, including women and smallholder farmers, by enabling easier access to government benefits, supporting micro-transactions, and reducing reliance on informal financial channels.

The role of UPI in fostering a more inclusive rural economy is evident in the rise of digital literacy, improved financial behavior, and enhanced capacity to withstand economic disruptions. These positive outcomes are especially visible in regions with adequate infrastructure, local training programs, and initiatives that build community trust in digital finance. Moreover, UPI's integration with government schemes and its growing network of banking agents and fintech solutions continues to extend its reach across underserved areas.

Future research should explore the long-term behavioural impacts of digital financial services, especially among women, older adults, and populations in remote or tribal regions. Longitudinal studies and field-based investigations would provide deeper insights into the sustainability and effectiveness of digital inclusion. Additionally, examining how UPI intersects with agriculture, healthcare, and education payments could open up new avenues for innovative and targeted policy interventions.

REFERENCES

- Antil, S., Swain, N., & Kumar, M. (2022). Determinants of Financial Inclusion of Rural Agricultural Households in India. *Journal of Rural Development, 41(1)* , 87-101.
- BFSI. (2024). *Financial inclusion in Bharat: Leveraging UPI to expand insurance accessibility across rural and urban India.* Economic Times BFSI.
- DH. (2022). *Rural India lags on digital payments despite UPI usage doubling in FY22.* . Deccan Herald.
- Dubey, S., & Gupta, T. C. (2024). Digital Payments and Financial Inclusion: A Comparative Analysis of Urban and Rural Areas in Madhya Pradesh. *European Economic Letters, 14(2)* , 3731–3741.
- EY, & CII. (2024). *UPI most preferred payment mode for ~38% Indians in rural and semi-urban areas; 96% demonstrate strong inclination to save and invest.* Ernst & Young & Confederation of Indian Industry.
- FE. (2024). *UPI's rural adoption driving better financial preparedness for emergencies.* Financial Express.
- Gulia, A., & Singh, L. (2024). Adoption of UPI (Unified Payments Interface) by Rural People: An Empirical Investigation. *IITM Journal of Business Studies, 11(1)* , 23–41.
- Kumar, A., Rani, S., & Mehta, P. (2022). Promoting digital payments in rural India: Behavioral barriers and policy innovations. *Journal of Financial Inclusion and Digital Empowerment, 5(1)* , 45–60.
- Kumari, R. (2024). Role of UPI in promoting microcredit and reducing dependence on informal finance in rural India. *International Journal of Scientific and Research Publications, 14(9)* , 37–43.
- Mandal, T. (2024). Adoption of UPI and Implementation of UPI-ATM in India: A Logit Analysis. *Indian Journal of Economics and Finance, 3(1)* , 52–59.
- Reuters. (2024). *Inflation prompts India cenbank to raise agri loan limit, push UPI-based credit access.* Reuters.
- Sahoo, S., & Mahakud, J. (2023). Financial inclusion through digital payment systems: An empirical assessment of UPI in rural India. *Indian Journal of Economics and Development, 19(4)* , 205–213.
- Sharma, A., & Singh, R. (2022). Bridging the digital divide: Policy pathways to improve rural fintech infrastructure. *South Asian Journal of Policy and Development Studies, 10(2)* , 101–115.
- Shekhawat, Y. S. (2024). *Grassroots Networks Can Drive UPI Merchant Adoption for Women Micropreneurs.* Outlook Business.
- Shome, P. (2024). *Making women vendors financially secure: UPI transactions helpful, but not a magic tool.* Citizen Matters.
- Soni, V., & Sharma, R. (2023). UPI and digital financial practices in rural households of North India: Patterns and impacts. *Journal of Rural Development Research, 41(2)* , 120–134.
- Srivastava, A. K., Sharma, K. C., & Deshpande, D. (2019). Policy Induced Financial Inclusion: A Case of Pradhan Mantri Jan Dhan Yojana (PMJDY) In Uttar Pradesh. *Journal of Rural Development, 38(2)* , 322–341.
- Swapna, N. S., & Kanthimathinathan. (2025). Understanding UPI Payment Adoption Among Rural Women: Insights from the Technology Acceptance Model. *Journal of Digital Economy* .
- Vishwakarma, K., Mishra, A., Shailendra, D., & Lal, A. (2024). Adoption and Challenges of Digital Payment Systems: A Study of Consumer Perception in Urban and Rural India. *Journal of Informatics Education and Research, 4(3)* , 2627-2641.
- WWB. (2024). *UPI for Her: Unlocking the Power of 200 Million Women in India's Digital Payments Revolution.* Women's World Banking.

A Study of Transfer Dependency of Municipal Corporations: The Indian Perspective

Divye Gattani[1]

INTRODUCTION

The Indian economy began to witness a compositional shift in growth from rural to urban-based economic activities, as firms and industries established themselves in urban areas, and rural-to-urban migration increased in search of a better lifestyle and job opportunities. Municipal corporations are assigned the responsibility for urban planning and development, along with public delivery of services in our nation, as urban areas are becoming the powerhouse of economic growth and prosperity. These growing 'Urban Agglomerations' would require massive reforms and transformations in infrastructure, with good governance practices to ensure efficient public delivery of services to facilitate their growth by not constraining their capacities as 'engines of growth'. We need to shift our focus towards the efficient management of these urban areas to harness their maximum potential. These areas differ in their demands and fiscal needs across different regions, making it difficult to meet their needs.

Arrow-Musgrave and Samuelson translated that each level of government would seek to maximize the social welfare of its respective constituency, directing towards decentralization and fiscal federalism. Local governments are closer to their constituency and have a superior knowledge of the preferences and demands of residents and their conditions, with the local outcome being pareto superior to that of a centralised one, as well as in accordance with the inter-regional differences in areas. The first-generation theory of fiscal federalism (FGT) was associated with decentralized provision of local public goods and decentralization of expenditure responsibilities, but the power of 'majority taxes' was left with the central authorities, emphasizing the importance of decentralized governments. 'Decentralization theorem'—developed by Wallace E. Oates- states that "each public service should be provided by the jurisdiction having control over the minimum geographical area that would internalize benefits and costs of such provision" (Tiebout, 1956: 416; Oates, 1972). FGT emphasised the role of transfers in addressing the cost disability, which arises due to a mismatch between expenditure obligations and revenue collections. A ready bailout to local government was becoming inefficient, with local governments' lack of incentive to mobilize their revenue to fund their expenditure requirements, and being heavily dependent on intergovernmental transfers. Second generation theory of fiscal federalism (SGT) regarded politicians as 'rent seeking individuals' who

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would see their objectives and have imperfect information about the local level, leading to inefficiency in the delivery of core public services pointing to 'principal-agent problem' where principal being 'citizens' and agents being 'politicians'. SGT argued for the decentralization of revenue responsibilities with 'hard budget constraints' and referred to local taxation playing a very important role in mobilizing municipal corporations' revenue and power to expand local taxes will improve the efficiency levels of service delivery. Thus, effective decentralization will not only improve the efficiency levels but will also help in evaluating the outcomes by providing information about the fiscal needs and fiscal ability of local areas. The evolution of public finance pointed towards fiscal federalism and the sharing of responsibilities with decentralized government to maximize the social welfare of the nation.

FISCAL FEDERALISM- INDIAN EXPERIENCE

India was a two-tier government till 1992 after it goes through a major structural reform with 73rd and 74th constitution amendment giving constitutional status to local government bodies and a proper framework for improving the central-state and local relations becoming a three-tier government system. The constitution gave the authority to states to assign them with functions and responsibilities providing an illustrative list of 18 functions which the state governments 'may' assign (under the 12th schedule). Finance commission was appointed with the role to suggest measures needed to augment the consolidated fund of state based on recommendations made by state finance commissions and maintaining a sustainable and stable fiscal environment consistent with equitable growth of municipal corporations. The institutionalisation of local governments changed the face of development in our nation with local bodies now working at the ground level with the primary responsibility of delivery of public services. The terms of reference (TOR) of local governments for the first time was included in the 11th Finance commission report and further finance commission reports have recommended measures along share of grants to local bodies. Municipal corporations were endowed with functions which benefitted the local residents.

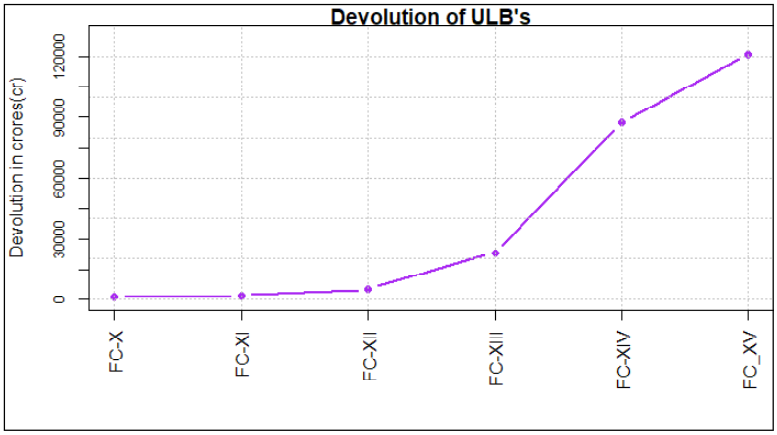


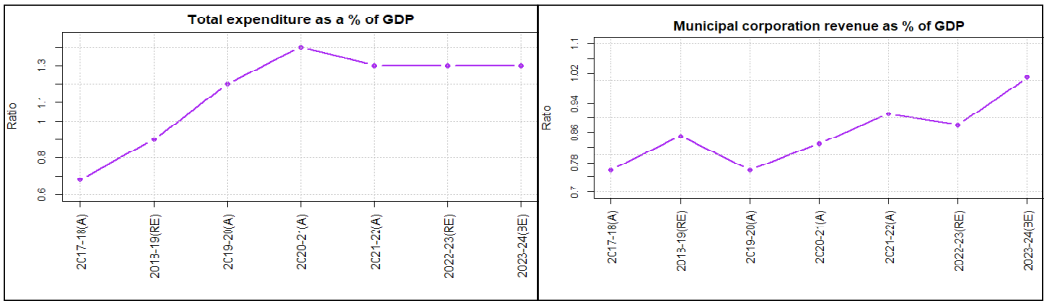
Figure 1 **Source: Finance commission reports**

The above figure shows the devolution of grants by respective finance commissions which increased highly after the constitutional amendment (from 1000 crore. in 10th FC to 1,21,199 crore in 15th FC). Finance commission takes into consideration the terms of reference (TOR), past database records to recommend measure and grants to urban local bodies(ULBs). The major problem with finance commissions in preparing their reports for local government was they were handicapped with the data supplied to them being difficult to even calculate, compare and analyze the resource gap of urban local bodies. Indian decentralization started facing problems where state finance commissions were not constituted on time and reports were based on discretionary transfers, some states were even reluctant to share the functions with municipal corporation. State governments enjoyed absolute power to endow them with the authority to levy tax, it was on their discretion to transfer funds to local bodies which created inter state disparity in decentralization of functions in actual practices to municipal bodies. The lack of database availability also started questioning the credibility and accountability of this municipal corporations. Finance commissions have taken several initiatives and measures to overcome various problems faced by municipal corporations.

11Th FC	FC-XI stated that first charge on the grants should be to maintenance of accounts and development of databases and the remaining amount should be used for maintenance of basic core services. It recommended a formula for devolution on the basis of population(40%), area(10%) and income distance (20%). C&AG was entrusted with the responsibility for control over database and maintenance of accounts.
12th FC	FC-XII recommended that 50% of grants should be utilised towards solid waste management practices scheme in PPP model along with creation of database and maintenance of public accounts using modern technology and accounting practices. It retained the same formula of devolution of FC-XI and recommended exploration of other tax revenue streams for increased tax collections.
13th FC	FC-XIII recommended two components of grants; basic and performance grant where basic was tied with no conditions and 9 conditions were tied for the urban local bodies along with maintenance of accounts to draw the performance grants.
14th FC	FC-XIV recommended two components of grant with composition of basic (80%) and performance (20%) with 3 conditions attached to them. The SFCs reports significantly differ in quality thus, FC decided to take the common issues into consideration in those reports. It recommended a trust based approach and said no further conditions should be imposed by states to the release of funds. Local bodies need to harness their potential of revenue collection and states should work towards proper reforms and regular revision of tax rates adjusted for inflation with strengthening the tax base. Municipal corporations should take initiative to directly approach the market for finance through municipal bonds and an intermediary body should be set up to assess their credit ratings and credit worthiness.
15th FC	FC-XV recommendations came up at the time of crisis where municipal corporations were at the front lines. They recommended that all those states who have not constituted their SFCs, must constitute and act upon their recommendations with publishing an action taken report before march 2024 to the state legislature otherwise no grants would be further released to them. Urban local bodies need to make their unaudited annual accounts of previous and audited annual accounts database of before previous available on the public domain and show a consistent rise in their tax collections to meet the entry level qualification for grants. A challenge fund was constituted for million-plus cities linked to their performance in improving the air quality and meeting the criteria of service level benchmarks.

The initiatives taken by finance commission and government gave some positive result with an increase in municipal corporation's total expenditure directing towards delivery of core public services, improvement in its own revenues and database availability of MCs with the help of reforms and intergovernmental transfers.

Figure 2 **Figure 3**

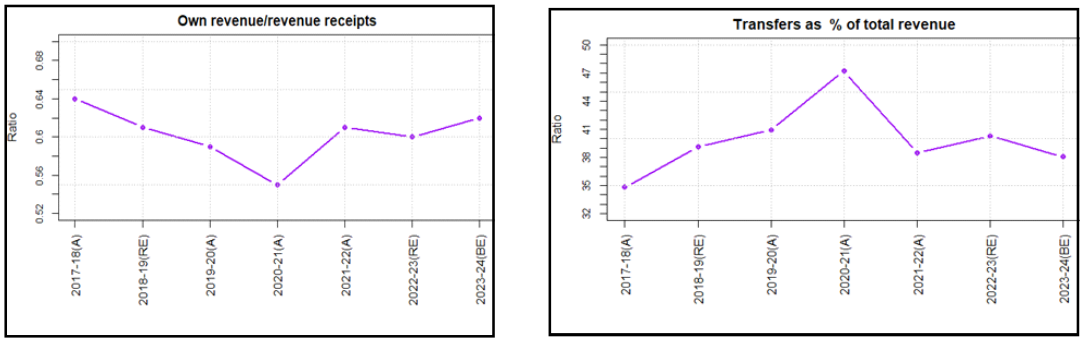


Years Years

Source: RBI study reports on municipal corporation Source: RBI study reports on municipal corporation

The above figure shows that total expenditure as a % of GDP has increased along with municipal corporations revenue as a % of GDP but despite the efforts of government and finance commissions on transforming municipal corporations, they merely took an incentive and were still heavily dependent on them for transfers to even fund their maintenance expenditures. The transfers were designed to reduce the fiscal asymmetry between municipal bodies to meet their fiscal needs but instead they became heavily dependent on them with decline in their own revenue losing out their fiscal identity, autonomy as third tier of government.

Figure 2 **Figure 3**



Years Years

Source: RBI study reports on municipal corporation Source: RBI study reports on municipal corporation

The above figure shows the municipal corporation's own revenue as a share of total revenue receipts has declined from (64% in 2017-18(A) to 60% in 2022-23 (RE)) and transfers increased from (34.8% in 2017-18(A) to 40.3% in 2022-23 (RE)) clearly pointing out to the failure of leveraging them as financially self-sustaining agencies and they being dependent on states and central government for transfers marks losing out their fiscal autonomy and credibility as an institution. Municipal corporation's database still points out to several lacunae in preparation of accounts, misutilisation of funds, lack of monitoring in their services pose a severe challenge to the working of municipal corporations.

A world bank report estimates that India will need approx. 70 lakh crore rupees by 2036 to address its urban infrastructure needs marking a requirement of 4.6 lakh crores per year which is currently only at 1.3 lakh crore per year pointing out to a major resource gap which needs to be covered in these urban local bodies. Thus, resource mobilization from their own revenue sources is very important to meet their infrastructure needs in future. Growing urbanisation will increase the potential of municipal corporations to mobilise their own revenues with support of right reforms and policies of state finance commissions (SFCs). An estimate by (ADB- in the Indian municipal finance) states that municipalities have the potential to raise their property tax revenues by (about 110%) without any fundamental change in their system of valuation and tax structure. Thus, major reforms to meet their resource gap will help them to go beyond the efficiency levels of intergovernmental transfers maintaining their strong fiscal identity and autonomy as third tier of government. Resource gap is measured as a mismatch between the decentralisation of revenue streams and expenditure obligations of local governments by giving us a clear estimate of dependency on other sources to finance their own expenditures.

There is an increasing need to study the finances of municipal corporations and resource gaps existing in them to anticipate their requirements and reforms needed to improve their situations. This paper aims to study the transfer dependency of municipal corporations across states to meet their resource gaps and assessing the performance of municipal corporation finances across the country. It also includes the study of inter-state variations in municipal corporation finance.

METHODOLOGY

Resource gap arises when there is a difference between the amount of revenue generated by their own sources and the amount spent on own expenditures by municipal corporations, in this situation municipal corporations depend on intergovernmental transfers, to fund their expenditures.

Resource Gap= own source revenue/own expenditure.

Fiscal dependency=1-Resource Gap

1. The study includes both revenue account resource gap as well as capital account resource gap separately.
2. Revenue account resource gap = own source revenue receipts/own revenue expenditure. Capital account gap = own source capital receipts/own capital expenditure.
3. Data of municipal corporations across 26 states and 2 union territories is taken for the period 2017-18 to 2023-24. Data of '2017-18 and 2018-19', taken from 201 municipal corporations,

2017-18 were from actual estimates and 2018-19 from revised estimates. The data of '2019-20 to 2023-24', taken from 231 municipal corporations, 2019-20,2020-21 and 2021-22 were from actual estimates and 2022-23,2023-24 from revised and budget estimates. Data for capital accounts is available from 2019-20 to 2021-22(A), 2022-23(RE),2023-24(BE).

4. The data not available have zero values.
5. Revenue account resource gap will show to what extent municipal corporations revenue expenditure is supported by their own revenue receipts and not through financial assistance or grants from state or central governments while capital account gap shows to what extent municipal corporations capital expenditure is supported by their own capital receipts and not through financial assistance or grants from central and state governments.
6. Fiscal dependency shows dependency of municipal corporations on intergovernmental transfers and other sources to fund their expenditures.
7. Higher resource gap shows own revenue funds a large portion of expenditures with lower fiscal dependency, while lower resource gap shows own revenue funds small portion of expenditures with higher fiscal dependency.

FINDINGS

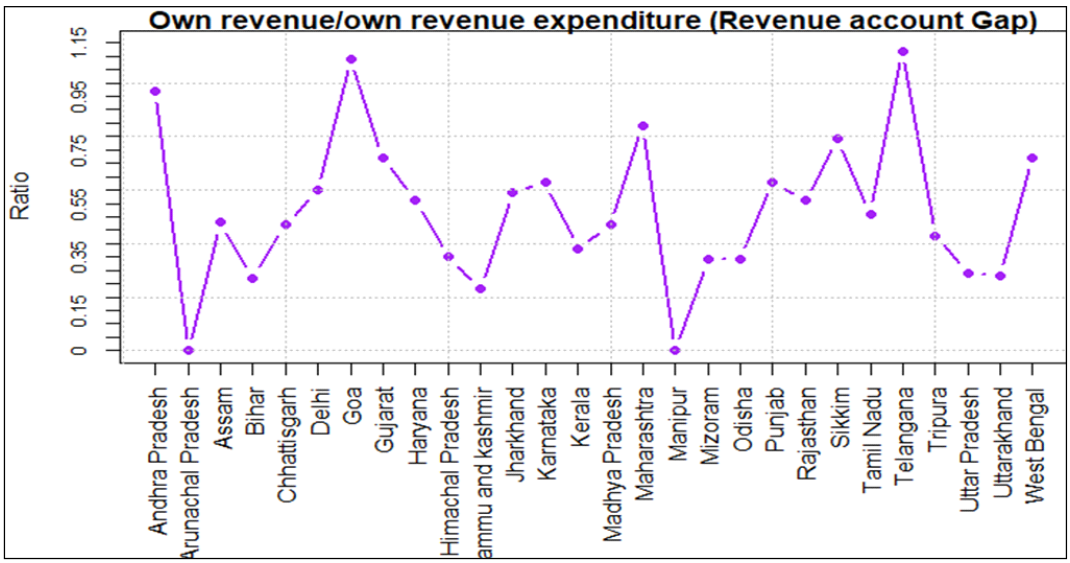
The study shows that municipal corporation's own revenue has declined and the share of transfers from central and state governments to municipal corporations has increased over time. Inter-state variations in resource gap were clearly visible where few states municipal corporations have performed consistently better in mobilizing their own revenues to fund their expenditures while on the same period few states have performed very low in their revenue efforts. Municipal corporations in states like Telangana (112%) and Goa (109%) even generated surplus from their own revenue and states like Andhra Pradesh(97%), Maharashtra (84%), Rajasthan (79%) and Gujarat (72%) were among the top performing states in mobilizing their own revenue receipts to meet their revenue expenditure while on the other hand states like jammu and Kashmir(23%), Bihar(27%), Uttarakhand (28%) and Uttar Pradesh(29%) were the low performing sates being heavily dependent on intergovernmental transfers to finance their expenditures.

Capital account resource gap gave some significantly different results where municipal corporations of states like Goa(1959%), Himachal Pradesh (255.73%), Telangana(194.65%) showed a very huge surplus of their own capital receipts after meeting their capital expenditures, putting concerns over the capital receipts lying unutilized while on the other hand municipal corporations of States like Delhi (119%), Andhra Pradesh (71.86%) were the top performing states in mobilising their own capital receipts to fund their capital expenditures while municipal corporations of states like Haryana(0.50%), Uttar Pradesh (1.14%), West Bengal (1.76%), Uttarakhand (-77.14%) have performed worse in maintaining their capital account resource gap. Majority of municipal corporations were not even able to meet 50% of their capital expenditures with their own capital receipts posing a serious problem to municipal finances of the country.

The analysis shows that municipal corporation expenditures are rising but on the same side their own revenue are declining building a huge resource gap in municipal corporations across states making them heavily dependent on intergovernmental transfers. Dependency on transfers is a

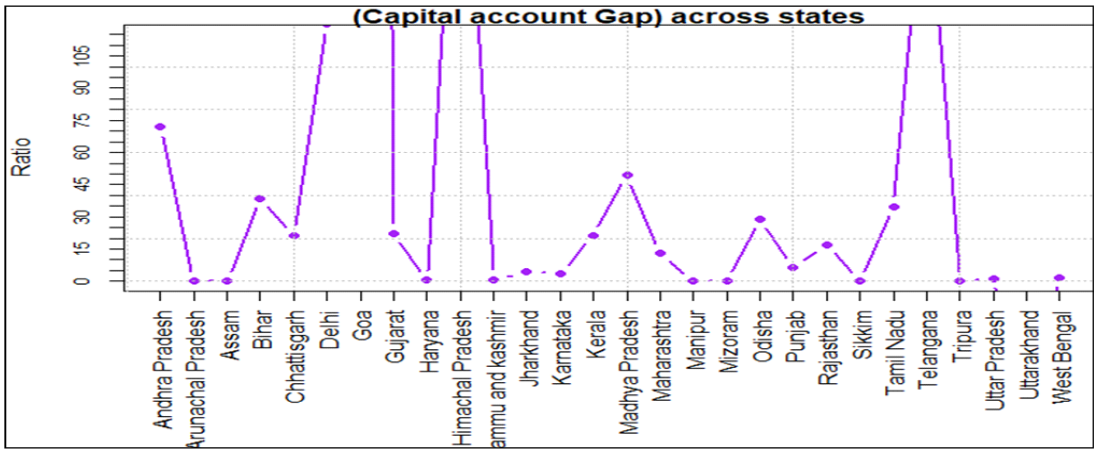
problem for municipal corporation's fiscal autonomy and fiscal identity as third tier of government. They lack the motivation to improve their revenue sources which questions their credibility and accountability as a government body managing urban areas development as 'engines of growth' of our nation.

Figure 6



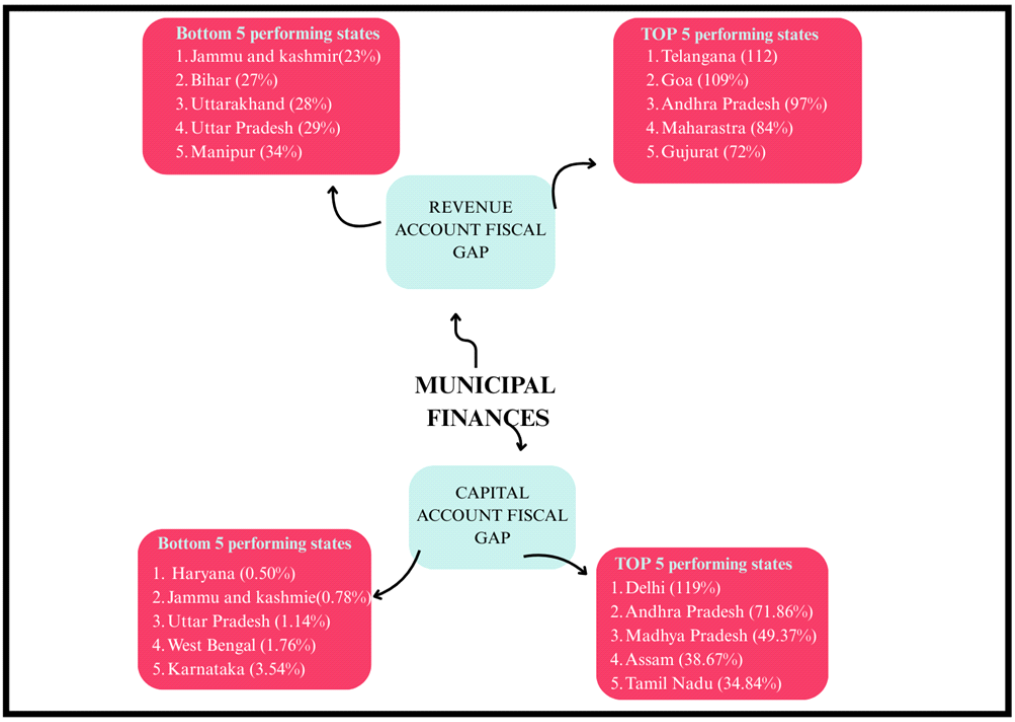
Source: Author's compilation from reports.

Figure 7



Source: Author's compilation from reports.

Figure 8



Source: Author's compilation from findings.

Table 1: Revenue account fiscal gap in ratio

State/UT	2017-18 (Accounts)	2018-19 (Revised Estimates)	2019-20 (Accounts)	2020-21 (Accounts)	2021-22 (Accounts)	2022-23 (Revised Estimates)	2023-24 (Budget Estimates)
1	2	3	4	5	6	7	8
1. Andhra Pradesh	0.96	0.91	0.86	1.01	1.02	1.09	0.92
2. Arunachal Pradesh	0	0	0.50	0.37	0.20	0	0
3. Assam	0.89	0.33	0.33	0.40	0.44	0	0
4. Bihar	0.29	0.29	0.23	0.25	0.24	0.29	0.28
5. Chhattisgarh	0.75	0.50	0.27	0.28	0.46	0.55	0.46
6. Delhi	0.75	0.60	0.55	0.48	0.53	0.62	0.68
7. Goa	1.20	0.89	1.14	1.31	1.21	0.94	0.97
8. Gujarat	0.70	0.69	0.70	0.69	0.69	0.70	0.90
9. Haryana	0.52	0.48	0.45	0.40	0.55	0.59	0.93
10. Himachal Pradesh	0.40	0.39	0.29	0.28	0.36	0.38	0.36

11. Jammu and Kashmir	0.59	0.52	0.09	0.12	0.18	0.06	0.07
12. Jharkhand	0.49	1.30	0.44	0.40	0.46	0.40	0.65
13. Karnataka	0.48	0.55	0.52	0.53	0.26	0.98	1.08
14. Kerala	0.22	0.43	0.45	0.47	0.37	0.50	0.26
15. Madhya Pradesh	0.67	0.22	0.44	0.43	0.47	0.46	0.61
16. Maharashtra	1.17	1.04	0.74	0.64	0.95	0.67	0.71
17. Manipur	0	0	0.43	0.82	0.34	0	0
18. Mizoram	0.22	0.18	0.43	0.42	0.43	0.52	0.18
19. Odisha	0.38	0.34	0.26	0.31	0.35	0.37	0.39
20. Punjab	0.51	0.65	0.71	0.72	0.67	0.61	0.54
21. Rajasthan	1.12	1.01	0.20	0.22	0.30	0.45	0.59
22. Sikkim	1.47	1.25	0.78	0.63	0.55	0.47	0.40
23. Tamil Nadu	0.38	0.53	0.48	0.47	0.49	0.58	0.64
24. Telangana	1.17	1.06	1.10	1.06	1.03	1.14	1.31
25. Tripura	0.15	0.30	0.54	0.55	0.40	0.53	0.53
26. Uttar Pradesh	0.30	0.26	0.30	0.30	0.28	0.30	0.31
27. Uttarakhand	0.25	0.29	0.31	0.31	0.22	0.26	0.28
28. West Bengal	0.55	0.42	0.82	0.94	0.74	0.76	0.79

Source: Author's compilation from reports.

Table 2: Capital account fiscal gap in percentageSource: Author's compilation from reports.

State/UT	2019-20 (Accounts)	2020-21 (Accounts)	2021-2022 (Accounts)	2022-23 (Revised Estimates)	2023-24 (Budget Estimates)
1	2	3	4	5	6
1.Andhra Pradesh	102.24	97.95	62.96	51.10	45.08
2. Arunachal Pradesh	0	0	0	0	0
3. Assam	0	0	=0	0	0
4. Bihar	132.95	19.85	23.89	10.96	5.71
5. Chhattisgarh	24.09	34.10	29.59	10.79	7.73
6. Delhi	82.15	163.12	345.80	4.10	3.77

7. Goa	2,679.74	985.09	2,903.51	2,886.79	342.59
8. Gujarat	21.97	13.81	8.87	40.32	25.87
9. Haryana	1.85	0.01	0.28	0.00	0.37
10. Himachal Pradesh	345.01	402.57	161.96	177.16	191.95
11. Jammu and Kashmir	0	0	0.07	1.85	2.02
12. Jharkhand	4.07	3.88	2.28	0.40	10.59
13. Karnataka	1.09	0.93	0.74	0.58	14.37
14. Kerala	11.88	13.07	13.46	23.68	44.06
15. Madhya Pradesh	22.35	90.17	42.14	69.94	22.27
16. Maharashtra	14.28	7.20	9.69	13.44	20.59
17. Manipur	0	0	0	0	0
18. Mizoram	0	0	0	0	0
19.Odisha	31.36	30.46	30.70	25.78	25.86
20. Punjab	5.98	6.25	6.64	6.65	5.92
21. Rajasthan	21.95	14.92	19.77	14.63	13.11
22. Sikkim	0.00	0.00	0.00	0.00	0.00
23. Tamil Nadu	32.27	34.74	36.78	40.81	29.58
24. Telangana	92.74	291.41	151.94	58.00	379.18
25. Tripura	0	0	0	0	0
26. Uttar Pradesh	0.61	1.07	1.59	1.00	1.46
27. Uttarakhand	-93.23	-58.31	-86.82	-92.04	-55.27
28. West Bengal	9.91	5.19	-1.26	-3.11	-1.94

References

1. Asian Development Bank. (2013, February). Municipal finance matters: India municipal finance study. https://www.adb.org/projects/documents/municipal-finance-matters-india-municipal-finance-study-tacr
2. Administrative Staff College of India. (2014). Municipal finances and service delivery in India. Hyderabad: ASCI.
3. Singh, N., & Vasishtha, G. (2004). Some patterns in center-state fiscal transfers in India: an illustrative analysis.
4. Darshini, J. S., & Gayithri, K. (2021). Fiscal Federalism: Transfer Dependency and Its Determinants Among Select Indian States. Institute for Social and Economic Change.

5. Singh, C., & Singh, C. (2015). Financing of urban local bodies in India.

6. Reserve Bank of India. (2022). Report on municipal finances. https://rbidocs.rbi.org.in/rdocs/Publications/PDFs/RMF101120223A34C4F7023A4A9E99CB7F7FEF6881D0.PDF

7. Reserve Bank of India. (2024). Report on municipal finances. https://rbidocs.rbi.org.in/rdocs/Publications/PDFs/MUNICIPALFINANCES131124AE4D91D4DD4A4629A88DA79BF0C52C73.PDF

8. Finance Commission of India. (2009). Report of the Thirteenth Finance Commission (2010–2015). Ministry of Finance, Government of India. https://fincomindia.nic.in/asset/pdf/commission-reports/13fcreng.pdf

9. Finance Commission of India. (2015). Report of the Fourteenth Finance Commission (2015–2020). Ministry of Finance, Government of India. https://fincomindia.nic.in/asset/pdf/commission-reports/14thFCReport.pdf

10. Finance Commission of India. (2021). Report of the Fifteenth Finance Commission (2021–26). Ministry of Finance, Government of India. https://fincomindia.nic.in/asset/doc/commission-reports/XVFC%20VOL%20I%20Main%20Report.pdf

11. Ahluwalia, I. J., Mohanty, P. K., Mathur, O., Khare, A., Roy, D., & Mangla, S**.** (2019). *Finances of municipal corporations in metropolitan cities of India*. Indian Council for Research on International Economic Relations.

12. Ahluwalia, I. J., Mohanty, P. K., Mathur, O., Roy, D., Khare, A., & Mangla, S. (2019). *State of municipal finances in India*. Indian Council for Research on International Economic Relations.

13. Surya, K., & Varughese, A. R. (2024). *An interstate analysis of vertical fiscal imbalance in India*. Gulati Institute of Finance and Taxation.

14. Jha, P. C. (2012)**.** *Theory of fiscal federalism: An analysis*. Amity University. Munich Personal RePEc Archive.

15. Jain, M., & Joshi, R. (2015). Municipal finances in India: Unresolved issues and way forward. *Cities: The 21st century India*.

16. NITI Aayog & Asian Development Bank. (2022, May). *Cities as engines of growth: TA-9508 — Strengthening the states for broad-based urban development*.

17. ICRIER. (2019, May). *Finances of municipal corporations in metropolitan cities of India: A study prepared for the Fifteenth Finance Commission*.

18. High Powered Expert Committee. (2011, September 29**).** *Report on Indian urban infrastructure and services*. Ministry of Urban Development, Government of India.

19. Janaagraha Centre for Citizenship and Democracy. (2022). *A municipal finance blueprint for India: A report commissioned by the Fifteenth Finance Commission*

A Study of Financial Stability through Education in India

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ABSTRACT

Financial stability is an essential component of individual well-being and national economic resilience. In a rapidly developing nation like India, where economic disparities and financial exclusion remain significant challenges, education plays a transformative role in promoting financial literacy, inclusion, and long-term financial stability. This study explores the intricate relationship between education and financial stability in the Indian context, with a particular focus on how educational attainment both general and financial-specific impacts an individual's financial behavior, decision-making capabilities, and overall economic security.

The research investigates the role of formal education and targeted financial literacy programs in enhancing financial awareness, promoting responsible saving and investment behavior, and reducing debt burdens. Drawing on both primary and secondary data sources, the study employs a mixed-methods approach that includes surveys, interviews, and analysis of existing economic and educational data from government and financial institutions. Quantitative findings are supplemented with qualitative insights from diverse demographic segments, including rural and urban populations, gender groups, and different socioeconomic backgrounds.

Key findings reveal that individuals with higher levels of education demonstrate significantly better financial planning, saving habits, and risk management strategies. In particular, access to financial education early in life correlates with greater confidence in handling personal finances, increased use of formal banking services, and reduced reliance on informal credit systems. The study also identifies major barriers to financial education in India, including limited access to quality schooling in rural areas, lack of standardized financial curriculum in public education, and low digital literacy which hinders access to online financial resources. Furthermore, the research highlights the effectiveness of government and non-government initiatives such as the Pradhan Mantri Jan Dhan Yojana, National Strategy for Financial Education (NSFE), and various NGO-led financial literacy workshops. However, it notes that many of these initiatives suffer from inadequate outreach, insufficient follow-up and limited integration with broader educational reforms.

Based on the findings, the paper recommends a multi-pronged strategy to enhance financial stability through education. Key recommendations include integrating financial literacy into school and

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college curricula, leveraging technology and mobile platforms for outreach, training educators in financial subjects, and fostering public-private partnerships to fund and implement inclusive financial education programs. The paper also emphasizes the need for a culturally contextualized approach that respects linguistic and regional diversities in India.

In conclusion, the study affirms that education is a powerful enabler of financial stability. By equipping individuals with the knowledge and tools necessary to make informed financial decisions, education can bridge the gap between economic potential and financial reality. For India, where a large portion of the population remains vulnerable to financial shocks, investing in financial education is not only a social imperative but a critical pathway to inclusive and sustainable economic growth.

Key words: *Financial Stability, Education and Sustainable Development.*

Introduction

Financial stability refers to a condition where the financial system functions effectively without significant disruptions, ensuring sustainable economic growth. In India, rapid financialization, digitization, and socio-economic diversity present unique challenges and opportunities. Financial stability is essential for economic growth, and education plays a critical role in fostering a financially aware and resilient population.

In India, where financial inclusion has grown but financial literacy remains uneven, education emerges as a powerful tool to strengthen financial systems. Education, particularly financial education, has been increasingly recognized as a foundational element in building financial resilience and reducing systemic risks. This paper explores the link between education and financial stability in the Indian context, examining the current state of financial literacy, government initiatives, challenges, and policy recommendations.

Financial education involves imparting knowledge and skills that enable individuals to make informed and effective financial decisions. It includes budgeting and saving, understanding banking and credit systems, risk management and insurance, investment planning and awareness of digital financial tools

India's financial system has seen major reforms post-liberalization, including the development of capital markets, expansion of banking services, and digital payment systems. Despite progress,

challenges persist like, low financial literacy, especially in rural areas, rising household debt, vulnerability to financial frauds and inadequate retirement planning.

Review of Literature

1. Theoretical Link between Education and Financial Stability: The human capital theory, as proposed by Becker (1964), suggests that education enhances an individual's productivity and decision-making capacity, including in financial matters. Educated individuals are more likely to make informed financial decisions, manage resources efficiently, and plan for the future (Lusardi & Mitchell, 2014).
2. Education and Financial Literacy: Several studies have established a strong correlation between general education levels and financial literacy. Lusardi and Mitchell (2007) found that individuals

with higher educational attainment tend to have greater understanding of financial concepts such as interest compounding, inflation, and risk diversification. Similarly, OECD (2016) emphasized that financial education contributes to the development of financial knowledge, attitudes, and behaviors that support sound financial decision-making.

3. Financial Education and Behavioral Outcomes: Research by Atkinson and Messy (2012) suggests that financial education leads to more responsible financial behaviors, such as budgeting, saving, and prudent borrowing. Financially literate individuals are more likely to invest in long-term assets, maintain credit discipline, and avoid high-cost debt traps. This behavior significantly contributes to personal financial stability.
4. Education and Financial Resilience: A study by the World Bank (2014) on financial capability in developing countries, including India, found that those with basic education and exposure to financial concepts were better prepared to handle financial emergencies. Education was linked to increased savings, insurance uptake, and diversification of income sources-key elements of financial resilience.
5. Impact on Vulnerable Populations: Women, rural populations, and the elderly often lack access to financial education. According to Agarwal et al. (2017), financial literacy programs targeted at women in rural India improved their ability to manage household finances and access formal financial services. The study highlights the role of education in reducing gender and regional disparities in financial inclusion and stability.
6. Digital Financial Literacy: As digital financial services expand, digital financial literacy has become crucial. The Reserve Bank of India (2020) emphasized that lack of digital literacy could expose individuals to frauds and poor financial decisions. Education systems incorporating digital financial concepts have shown to improve adaptability and confidence in using digital platforms.
7. Limitations of Financial Education Programs: Hastings, Madrian, and Skimmyhorn (2013) argue that the effectiveness of financial education programs may depend on timing, delivery mechanisms, and follow-up reinforcement. One-time programs may not result in lasting behavioral change unless reinforced by practical application and personalized coaching.
8. COVID-19 and Financial Resilience: The COVID-19 pandemic underscored the importance of personal financial buffers. Research by the World Bank (2021) noted that individuals with savings or access to formal financial systems were better able to withstand income shocks and maintain basic consumption levels during lockdowns.

Role of Education in Enhancing Financial Stability

1. Improving Financial Literacy: Educated individuals are more likely to access and use financial services effectively, reducing the risk of defaults and financial distress.
2. Reducing Information Asymmetry: Financial education mitigates the gap between financial institutions and consumers, leading to more transparent and efficient markets.
3. Encouraging Responsible Borrowing and Saving: Well-informed citizens are less likely to engage in overleveraging and more likely to build emergency savings, contributing to macroeconomic stability.

4. Building Trust in Financial Institutions: An educated populace is better positioned to evaluate financial products and institutions, strengthening trust and system resilience.

Government and Institutional Initiatives

1. National Centre for Financial Education (NCFE): NCFE develops financial literacy materials and conducts programs targeting various demographics.
2. RBI and SEBI Campaigns: The Reserve Bank of India (RBI) and Securities and Exchange Board of India (SEBI) run mass awareness campaigns and school-based programs.
3. Financial Literacy Week: Organized annually by RBI to raise awareness on key themes such as digital payments, fraud prevention, and savings.
4. Integration into School Curricula: CBSE and NCERT have begun integrating financial concepts into middle and high school syllabi.

Analysis and Interpretation

1. Education as a Catalyst for Financial Awareness: Analysis of global and regional data shows that individuals with higher levels of education are significantly more likely to understand and utilize financial tools. Education enhances cognitive ability, critical thinking, and decision-making skills, which are essential for managing income, budgeting, saving, investing, and avoiding debt traps. Education equips individuals with the analytical ability to evaluate financial options, understand risks, and make long-term plans. This reduces impulsive financial behavior and increases resilience to economic shocks.
2. Correlation between Educational Attainment and Financial Inclusion: Empirical evidence from countries like India, Kenya, and Brazil demonstrates a strong positive relationship between education and financial inclusion. Educated individuals are more likely to have access to bank accounts, credit services, insurance, and investment products. With basic literacy and numeracy skills, individuals can engage confidently with financial institutions, understand formal documentation, and participate in the broader economy. This integration into the financial system supports personal financial stability and economic development.
3. Financial Education as a Specific Form of Empowerment: Beyond general education, financial education directly improves financial behavior. Programs implemented in schools, workplaces, and rural communities have shown measurable improvements in saving behavior, debt management, and financial planning. Targeted financial education fills gaps not addressed by general schooling. Its role is critical in contexts where individuals face complex financial products or rapid digitalization. It empowers individuals to avoid scams, use digital wallets safely, and plan for retirement.
4. Impact of Education on Financial Behavior and Risk Tolerance: Studies indicate that higher education is associated with better risk management and diversification strategies. Educated individuals are more likely to invest in diverse assets and understand insurance mechanisms, which reduces financial vulnerability. Education fosters not just access to tools but the confidence and discipline to use them wisely. It enhances risk assessment skills, leading to better long-term financial outcomes.

5. Socioeconomic Implications of Educational Gaps: Analysis shows that lack of education correlates with persistent poverty, indebtedness, and vulnerability to financial shocks. Marginalized communities with low literacy often rely on informal lending and are excluded from growth opportunities. Education serves as a social equalizer. Bridging educational gaps is essential for achieving inclusive financial stability. Without educational outreach, financial inclusion strategies may fail to reach the most vulnerable.
6. Case Evidence from India: In India, the Pradhan Mantri Jan Dhan Yojana (PMJDY) dramatically increased access to banking. However, studies reveal that many beneficiaries do not actively use their accounts due to lack of understanding or trust, where financial literacy programs have been implemented-such as through the National Centre for Financial Education (NCFE)-usage and financial outcomes have improved. Mere access to financial tools is insufficient. Education ensures effective utilization. In India's diverse context, region-specific, language-inclusive financial education is vital for sustainable financial empowerment.

Conclusion

Education especially financial education has a profound impact on personal financial stability. It not only improves individual decision-making and economic resilience but also contributes to broader economic security and social well-being. Policies focused on improving financial literacy, particularly among underserved populations, are essential for achieving equitable financial stability.

1. Positive Correlation between Education and Financial Stability: Numerous studies and data analyses suggest a direct positive relationship between the level of education and financial stability. Individuals with higher educational qualifications are more likely to experience income security, plan for the future, manage credit responsibly, and maintain financial buffers such as savings and insurance.
2. Education Improves Financial Literacy and Capability: Education both general and financial-specific builds financial literacy, which is the foundation for effective money management.
3. Income Generation and Employment Opportunities: Higher education levels are associated with greater employability and higher income levels, which directly impact one's ability to save, invest, and insure against financial risk.
4. Role of Financial Education in Early Life: Incorporating financial education into school curricula has shown long-term positive effects on financial behavior in adulthood. Students exposed to basic concepts like budgeting, banking, and investment tend to become financially responsible adults.
5. Education Reduces Financial Vulnerability: Lack of education often correlates with financial exclusion, over-reliance on informal credit systems, and vulnerability to fraud. Educated individuals, on the other hand, are more likely to engage with formal financial systems and use digital financial tools effectively.
6. Gender and Regional Gaps: In many developing countries, including India, gender and regional disparities in education reflect similar disparities in financial stability. Women and rural populations with lower educational access often exhibit weaker financial literacy and face greater financial instability.

7. Education and Long-Term Financial Behavior: Educated individuals show higher participation in retirement savings, insurance schemes, and investments. They are also more likely to set and achieve financial goals, creating intergenerational stability.

Suggestions

The relationship between education and financial stability is deeply interconnected and multidimensional. Education, both formal and financial, significantly influences an individual's ability to earn, save, invest, and manage financial risks. It empowers people with the knowledge, skills, and confidence needed to make informed financial decisions, thereby reducing vulnerability to economic shocks and promoting long-term well-being.

Educated individuals are more likely to engage with formal financial systems, plan for their future, and contribute positively to economic development. Conversely, lack of education often correlates with poor financial decisions, dependence on informal credit sources, and a higher risk of financial instability. Thus, education serves as a foundational pillar not just for personal development, but for fostering a financially stable and resilient society.

1. Integrate Financial Education Early in Life
2. Promote Adult and Community Financial Literacy Programs
3. Encourage Digital Financial Literacy
4. Expand Access to Education for Underserved Groups
5. Partner with Financial Institutions and NGOs
6. Policy-Level Interventions

In the Indian context, education emerges as a crucial driver of financial stability. The correlation between education especially financial literacy and the ability to manage personal finances is evident across rural and urban populations alike. Education enhances awareness, empowers informed decision-making, and fosters responsible financial behavior, such as saving, budgeting, investing, and using formal financial services. Despite significant progress through schemes like the National Financial Literacy Assessment Test (NFLAT) and Pradhan Mantri Jan Dhan Yojana (PMJDY), a large segment of the Indian population still lacks the financial knowledge necessary to make stable and secure financial choices. This gap is more pronounced in rural areas, among women, and within economically weaker sections. Thus, education is not just a tool for literacy but a foundation for financial empowerment. Bridging the educational and financial literacy divide is essential for sustainable and inclusive economic development in India.

References

1. https://www.sciencedirect.com/science/article/abs/pii/S0275531924000874
2. https://www.researchgate.net/publication/370928163_FINANCIAL_STABILITY_AND_ QUALITY_OF_LIFE
3. https://www.worldbank.org/en/publication/gfdr/gfdr-2016/background/financial-stability
4. https://www.adb.org/sites/default/files/publication/156343/adbi-wp488.pdf
5. https://www.imf.org/en/Publications/GFSR

6. https://www.bis.org/publ/bppdf/bispap01f.pdf
7. https://www.ijcb.org/journal/ijcb2002_5.pdf
8. https://ideas.repec.org/s/eee/finsta.html
9. https://onlinelibrary.wiley.com/doi/10.1155/2022/8799247
10. https://link.springer.com/article/10.1007/s00181-021-02071-x
11. https://pmc.ncbi.nlm.nih.gov/articles/PMC9678270/
12. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2491403

Volatility in Indian Stock Market and Rising Number of Stakeholders

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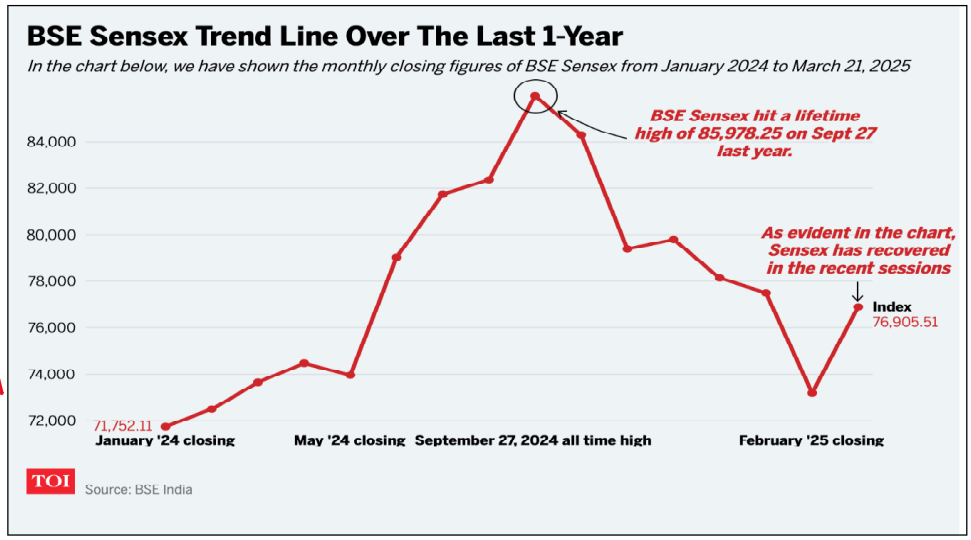
INTRODUCTION

In economic theory, it is assumed that in periods of uncertainty (wars, floods, natural man-made disasters) all individuals prefer liquidity and avoid all kinds of long-term, mid-term investment. There are various examples of such slowdowns and recessions in history where financial institutions (opting for the Roosa effect) do not want to lend (low yields). Thus, in market credit and investment drop, as was case in housing crisis, which resulted not only in loss of GDP and employment, but also led to a crash in stock market (2008 to 2010). Another and greater uncertainty arose during the COVID-19 pandemic, which essentially was a health hazard but led to destruction in various supply chains and industries because individuals were confined to their homes. In both periods, the stock markets of India, BSE, and NSE crashed to unprecedented lows. During the period of the housing crash, all markets BSE, NIFTY, commodity market, etc took 2 years to revive, but in Covid, it took only six months. Since then, BSE and NSE scaled new heights in all four past Covid years, e.g., Sensex was a time low in March 2022 at 27,000, and Nifty in the same period was at 9000. SENSEX scaled the level of 60,000 in just 548 days, and then it took only 158 days for Sensex to breach the market of 70,000 in December 2023. It further gained momentum and reached the highest peak to date as of 25 September 2024. The level was 85978. So-called astrologist, investment companies. (Hiren Ved, Mark Mobius, Jeffrey Christwood, Anand Rathi, Varun Goyal, Ridham Desai) predicted that Sensex would breach the mark of one lakh between 2025 and 26. Morgan Stanley still predicts 105,000 marks for Sensex by December 25. Yet, Indian markets are down by more than 13%.

A cursory glance at the table indicates that, despite a stable and growing GDP, the Indian stock market is volatile. One also has to remember that a crash in a stock market means a lot of money of investors is wiped out. A thousand-point drop in the Sensex or a 300-point drop in the Nifty would mean that investors have lost nearly a thousand crore in a day. This may be in terms of book value, but its wealth effect cannot be denied. So, if Sensex has come down from 86,000 to 74,000, nearly 21 lakh crores of investors ' money has been wiped out, yet the number of investors, folio, schemes, and even primary listing is increasing. In economic theory, if buyers increase, the price goes up, but the same is not true in the stock market. Here, buyers could in case increase.

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From around 86,000 to 74,000 on 8th April 2025. (Diagram.)



This paper is an attempt to explain the dilemma faced by investors in present economic circumstances. The data used for analysis is monthly and taken from the pre-COVID period to make fairer conclusions. One must remember that during this period, government policies underwent significant changes in India, as well as globally, particularly in terms of inflation, which was high due to the government's specific relief packages aimed at enhancing aggregate demand during the Covid pandemic. So now, all over the world, policy rates are rising, giving breathing space to banks to enhance deposit rates and provide customers higher returns with no risk. So now, customers can choose between deposits and financial assets (risk-free) investment and the stock market (risky). This paper is divided into the following parts. 1. Literature review.2. Objectives and methodology.3. Data analysis. and 4. Findings and recommendations.

Part 1

Review of Literature

Investment decisions as per economic theory depend upon micro/macroeconomic fundamentals of the firm/ industry/ economy. There are various new theories of Financial Investment. A brief look at them would be helpful to understand the fundamentals on which, as per economic investment behaviour, to be placed.

The Capital Asset Pricing Model (CAPM) is a theory of portfolio choice developed by **Markowitz (1952, 1959).** It was a special case of expected utility where investors are concerned with the mean and variance of the Payoff for selected portfolios. Markowitz's main finding was that the covariance of chosen asset return is the main cause of profit. Tobin (1958) in the liquidity Preference theory established the mean variance framework as the standard approach to portfolio theory. Brennan criticized this in 1989. The investors believe in mean and variances of on assets. Sharpe (1964) and

Lintner (1965) introduced equilibrium formula

$E_{ri} = r_f + \beta_i (E_{rm} - r_f)$

Where,

E_{ri} = Expected Return on Asset i

r_f = Return on Risk free Assets

E_{rm} = Expected Return on the Market Portfolio

$\beta_i = Cov(r_{i,} r_m)$

Despite the assumption of the mean, various preferences and how much unity of investors believe the capital asset pricing model was considered a crucial development in finance.

Arbitrage Pricing Theory (Ross, 1977) is a method used to estimate the returns on assets and portfolios. This model is based on the linear relationship between assets, expected risk, and returns. Arbitrage is the practice of buying in a set at a lower price and simultaneously selling it at a higher price. Investors assign macroeconomic factors that may affect the returns on the asset through the regression process.

The Efficient Market Hypothesis occupies its place and is different from fundamental and technical analysis because share prices can't be predicted here, and this model follows a random walk that can present in stochastic process. Market efficiency hypothesis assumes that if the market is competitive, symmetric information and no friction cost present in the market then difference in assets returns exist because of difference in risk. Only investors who have greater risk-bearing capacity can earn higher returns. All available information becomes reflected in the stock prices, so no investor can make a higher profit without bearing higher risk, and investors are not able to avail the opportunity of arbitraging. The efficient market hypothesis was derived from Fama's research in the 1970s.

Behavioral Finance Attacks on Arbitraging and the Rationality of Efficient Market Hypothesis. Behavioral Finance assumes that investors are Irrational because of errors in the information process and behavioral biases and do not believe in the optimization of returns. Behavioral finance stands on two pillars: (a) Irrationality in investors and (b) limits to Arbitrage. The theories of Behavioral Economics have been developed as a separate field of research since 1960. But economists right from the 16th and 17th centuries had been trying to explain realistic human behaviour while dealing with economic decisions. For example, many economists tried to explain human behaviour in risky and uncertain situations of gambling, lottery, etc. In the 21st century, very important behavioural economic theories have been developed that claim that the most important cause of individual choice is heuristics, i.e., the thumb rule which humans follow instinctively for most of the choices and rationality takes a back seat. Kahneman and Tversky are two of the important pioneers of this theory. This new emerging field is important, and more focus should be given because through the **Randomized Control Trial**, Psychological experiments (field based / lab based) arguments and premises of Behavioral Finance can be tested and biases can be controlled. Contemporary researches are coming from **Neuro Economics** (Field of Behavioral Economics) which discuss the impact of Neural Network on decision making. So, it is used in finance by transmitting new information by Neurons on how quickly and how much investors' decisions get affected. All the above theories are

based on the fact that investment is a conscious decision made by investors to maximize returns. But is this true? This research paper analyses the behaviour of Indian investors in the last five years with the following objectives.

Part II

Objectives And Methodology

The main objective of this research paper is to explain the investors' behaviour during the period of uncertainty in India. Nearly 90% of the economy faced recession during 2020–21, leading to a drop in world GDP by around 3%, world trade by around 4% and unemployment by around 7%. Due to this, it was expected that prices of hedge instruments like gold, property, commodity and metals would rise and speculative instruments like equities and crypto currencies would fall. But the table 2 graph 1 and graph 2 fact is that during 2020–21 the Sensex, Crypto currencies and other speculative instruments are rising while the price of gold, metals, minerals oil as well as property were decreasing. On one hand, FDs and term deposits with financial institutions were declining, but AUM under mutual funds were rising, which may be termed as semi speculative investment like equities. The Research question thus one,

1 Why are speculative instruments gaining new heights even after safe instruments with high returns are available?

2. Is there any causal relationship between the sensitive index and mutual funds?

3. To predict the values for AUM up to 2026, provided that the GDP of India would grow at 6.5% per annum.

Methodology

The analysis is analytical and descriptive based on secondary data from various authentic sources. Various statistical tools are used to analyse the investor's behaviour. Granger causality test is used to explain the relationship between Sensex and mutual funds in the specific context of India. $\mathbf{AUM}_t = \alpha + \mathbf{B}_1 \mathbf{AUM}_{t-1} + \mathbf{B}_2 \mathbf{SENSEX}_t + \mathbf{E}_t$

Limitations

The data used as mentioned, is secondary and monthly so as to capture all short and long-run trends together to find out what causes impact, short-run disturbances, and what causes changes in long-term trends. There are always some limitations in every research paper based on data, time, period, etc. In this research paper, the growth of different funds under large, middle, and small caps has not been done. Nor does the study include the changing behaviour of mutual fund companies in selecting investments between equity and bonds. In mutual funds, investment can be done in both

equities and securities. Most mutual funds have distinct funds for equities and securities, but now a lot of funds have hybrid instruments that continuously change the ratio of equity and security. While investment and equity impact the Sensex directly and proportionally and shall be termed as a speculative but investment in securities cannot be compared to that of equity. Therefore, AUM of funds are not 100% related with stock market, so the returns may not be representative.

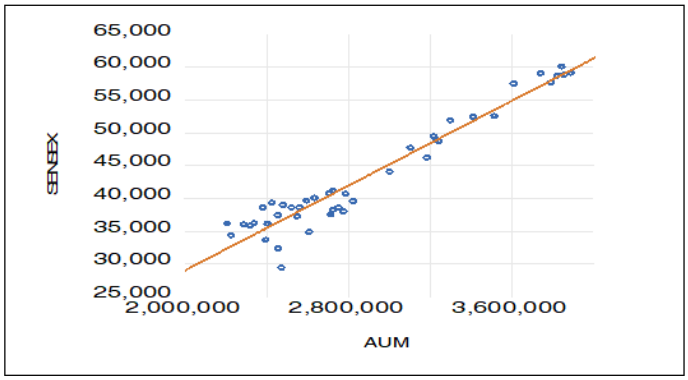
Part III: Data analysis

In this paper, as mentioned, the researcher is taking data from 2018 up to March 2025 monthly to capture pre-COVID, post-COVID Covid, and the Trump period. Trump, since being elected as a presidential candidate of the republican party, has started building a …. MAGA (Make America Great Again) even if other nations face difficulties. This has created uncertainty around the world, especially after he was finally elected. One must remember that the Indian economy started slowing down long before Covid due to a variety of reasons, more importantly, Policy decisions. Various steps were taken by the government (GST implementation, note bandi, operation twist) to enhance transparency and reduce the cost of borrowing. Many steps were not welcomed by the market, but the stock market was rising, and Government/ private institutions had started a narrative that the stock market always beats the return of deposits and hence is risk neutral in the medium and long-term. This narrative was created by a large number of advertisements by AFMC as well as government policy by lowering the yields on risk less instruments (PPF, FD, government securities). Therefore, funds remained stable (1 August 2018 to 1 March 2020) when the stock market crashed from around 40,000 to 30,000. Its impact on the AUM of the mutual fund can be seen with a lag of one month. But even during the peak of the Covid period, March 2020 to 2021, the Sensex began to rise. Sensex rose for nearly 4 years at a rapid speed. By September 2024, it started declining, and since then, there has been greater volatility, but the overall trend is declining. As against this, AUM has not been declining, i.e., the number of buyers and investment funds is not declining but rather shows a marginal positive trend. (Diagram 2). This does not agree with economic theory, where buyers are ready to buy, but share prices are declining. Investors have remained invested now for almost 6 to 9 months despite losing money and looming uncertainties. This needs an explanation. This faith of investors is further proved by regression analysis but disproved by correlation analysis.

Regression analysis and correlation analysis are based on quite a long series of data, and R square as well as adjusted R square are high enough to believe that AUM investment is not declining despite the recent downturn. It must also be mentioned that in the last few years, the role of media, especially social media and new investment portals like Zerodha, Angel One, etc, have gained prominence. New investors, especially the tech-savvy 20 to 40 years old investors, do not have to go to a stockbroker, mutual fund consultant, etc., in whom the investor did not have complete faith but had no option. With the growth of these apps in which investors can invest at any point of time with the help of the mobile, his confidence and comfort have gone up. Therefore, the wait and watch Policy has given way to now adhere. This may be another reason why folio is small and big are increasing despite down turns.

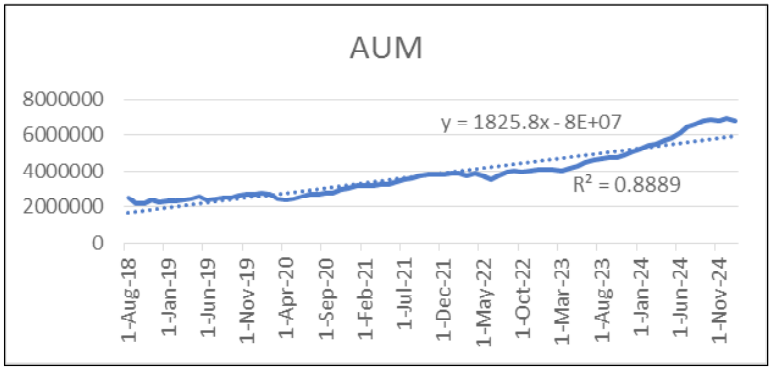
Table 2: AUM and SENSEX value from 2018-2025 (Annexure A)

Graph 1: Scatter Diagram of AUM and SENSEX



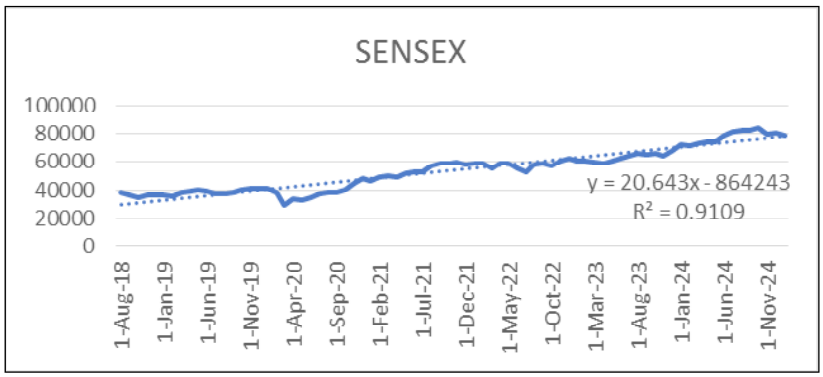
Source: Self-made from the table

Graph (2): Trend Line of AUM



Source: Self-made from the table

Graph (3): Trend Line of SENSEX



Source: Self-made from the table

Table 3: Regression Analysis

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.97114894
R Square	0.94313026
Adjusted R Square	0.94238198
Standard Error	320651.28
Observations	78

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	1.2959E+14	1.2959E+14	1260.3874	4.5496E-49
Residual	76	7.8141E+12	1.0282E+11		
Total	77	1.374E+14			

Table 4: Correlation Analysis

	AUM	***SENSEX***
AUM	1	0.97114894
SENSEX	0.97114894	1

Granger Causality

Table 5: Stationarity Test for AUM and SENSEX

ADF TEST

Null Hypothesis: DAUM has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=11)

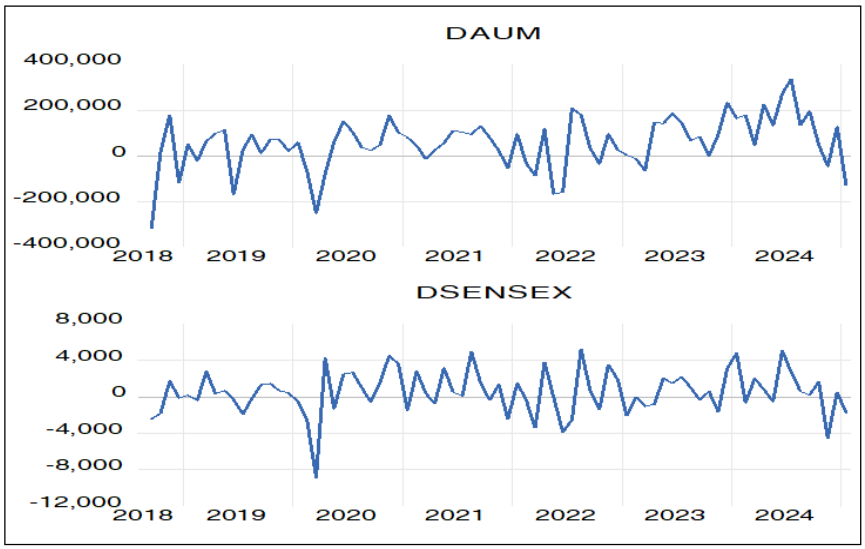
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.962743	0.0000
Test critical values:	1% level	-3.517847	
	5% level	-2.899619	
	10% level	-2.587134	

*MacKinnon (1996) one-sided p-values.

Null Hypothesis: DSENSEX has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=11)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-9.044998	0.0000
Test critical values:	1% level	-3.517847	
	5% level	-2.899619	
	10% level	-2.587134	

*MacKinnon (1996) one-sided p-values.



GRANGER CAUSALITY

Pairwise Granger Causality Tests
Date: 03/23/25 Time: 22:22
Sample: 2018M08 2025M02
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
DSENSEX does not Granger Cause DAUM	76	0.59795	0.5527
DAUM does not Granger Cause DSENSEX		9.19723	0.0003

The Granger causality test was done after testing the stationarity of both series. The result was very clear that mutual fund investments follow the Sensex with a gap of more than one month i.e. Sensex leads the way for mutual fund investment. A similar test has been done by the author on Nifty, with almost similar results. To explain the causality, one must understand the nature of mutual funds. There are two types of investments done by mutual fund experts: active and passive. The active investments are those in which funds are invested in various stock/debt instruments to beat the returns of Sensex. The managers choose the stocks that are out-performing the index but are not always able to do it. This is a zero-sum game in which some succeed in selecting the stocks which outperform while some do not, and therefore, there are always losers and gainers. In the second case, i.e. the passive funds where investment is not done to outperform the Sensex but is done in index funds or index traded fund no research is required. Nowadays, passive funds are becoming very popular as no great research is required and the benefits are exactly equal to the index which is chosen. In 2010, hardly 5% to 10% mutual fund investment was done in index funds. But by 2019, this percentage rose to more than 20%. This is because of two reasons: (1) The cost of investment is negligible because of low search and professional cost. (2) These investments are very diversified (some of them are active-passive funds with investment baskets equalling the share and might of its stock underlying in any index) hence less risky although returns are also average and that is better because otherwise investment in mutual fund and stock would become nearly synonyms. Therefore, it needs no great imagination to conclude that a mutual fund always follows the movements in Sensex, although in some very uncertain period individuals shift their investment from mutual funds to gold and property. At that time, a decrease in folios and investment may affect the stock market itself as happened in March 2020 to June 2020. But even in this period of Covid (pre-and post) the causality has been holding quite fine. It's very difficult to isolate any particular cause that could predict the human behaviour which is very complex.

Forecasting For AUM

The researcher further tried to forecast the values of AUM and Sensex based on the data between 2018 and 2025. The main reason was that this period included two uncertain periods and along a stable certain period, i.e. it captures animal spirits of individuals during highs and lows. Given below is a co-regression, which is also known as an autocorrelation plot. It helps in identifying patterns and dependencies with data. A single glance demonstrates that separations are too low. Random correlations are, hence, zero. So, one can easily conclude that the association is too robust. The same data is used to find out the autoregressive moving average (ARMA) combining, both

autoregressive (AR) and moving average (MA) components. This is done to protect the future values based on past values and past errors. After finalising the values, one finds that future values are forecasted in Table 2, and the forecasted values are placed. The forecasted value of March 2025 (on a long-run basis) comes to be 69,000, which is not very close as well as downside of 75,000 (in real) but certainly closer to 90,000 that all experts assumed of. The animal spirits help to stabilise because when share rises fast, the buyers do not make purchases and when the market crashes, the bulls do not sell. The risk aversion of beers and the risk-loving nature of bulls developed on various psychological characteristics. The new behavioural economics can explain in a better manner than traditional economic fundamentals.

Identification of AR, MA

Correlogram for DAUM

Date: 03/23/25 Time: 22:24
Sample (adjusted): 2018M09 2025M02
Included observations: 78 after adjustments

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.284	0.284	6.5468	0.011
		2	0.053	-0.030	6.7781	0.034
		3	0.174	0.182	9.3079	0.025
		4	-0.001	-0.113	9.3079	0.054
		5	0.095	0.150	10.072	0.073
		6	0.096	-0.012	10.872	0.092
		7	0.002	0.006	10.873	0.144
		8	-0.021	-0.069	10.910	0.207
		9	0.133	0.183	12.520	0.186
		10	0.063	-0.050	12.882	0.230
		11	-0.064	-0.058	13.264	0.276
		12	0.073	0.064	13.763	0.316
		13	0.002	-0.024	13.764	0.391
		14	0.030	0.059	13.848	0.461
		15	0.039	-0.060	13.995	0.526

Selection of ARMA Model : p,q,r (3,1,1)

Dependent Variable: D(AUM)
Method: ARMA Maximum Likelihood (OPG - BHHH)
Date: 03/23/25 Time: 22:27
Sample: 2018M09 2025M02
Included observations: 78
Convergence achieved after 15 iterations
Coefficient covariance computed using outer product of gradients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	50828.46	21567.48	2.356718	0.0211
AR(3)	0.223300	0.110807	2.015224	0.0475
MA(1)	0.378125	0.111326	3.396567	0.0011
SIGMASQ	1.09E+10	1.69E+09	6.457913	0.0000

R-squared	0.145004	Mean dependent var	54331.73
Adjusted R-squared	0.110343	S.D. dependent var	113654.0
S.E. of regression	107200.4	Akaike info criterion	26.05696
Sum squared resid	8.50E+11	Schwarz criterion	26.17782
Log likelihood	-1012.221	Hannan-Quinn criter.	26.10534
F-statistic	4.183387	Durbin-Watson stat	1.940700
Prob(F-statistic)	0.008605		

Forecasting

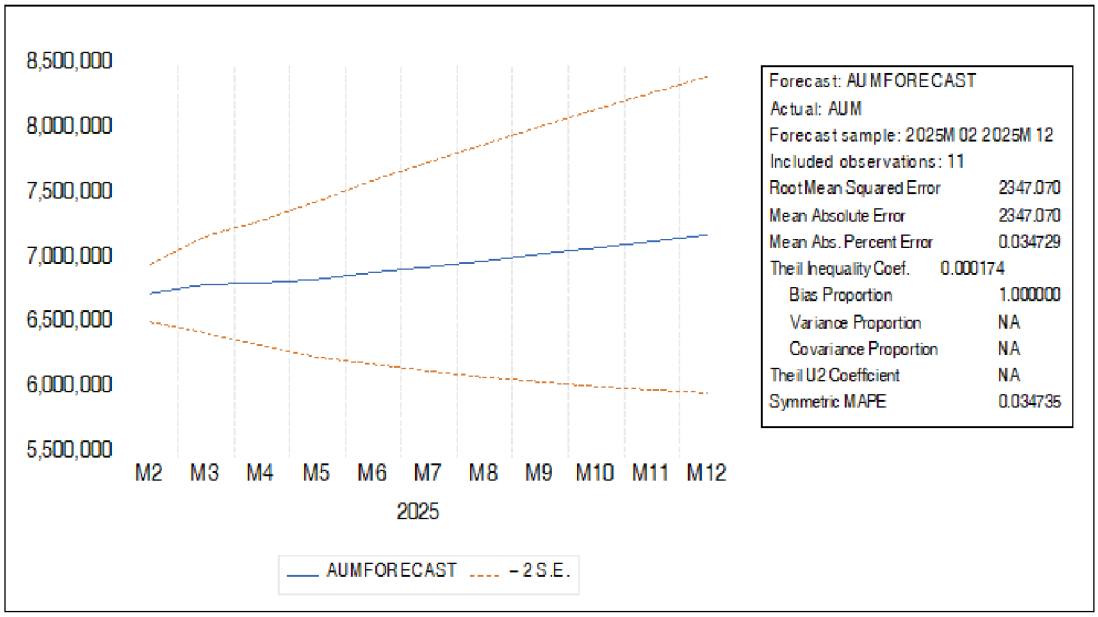
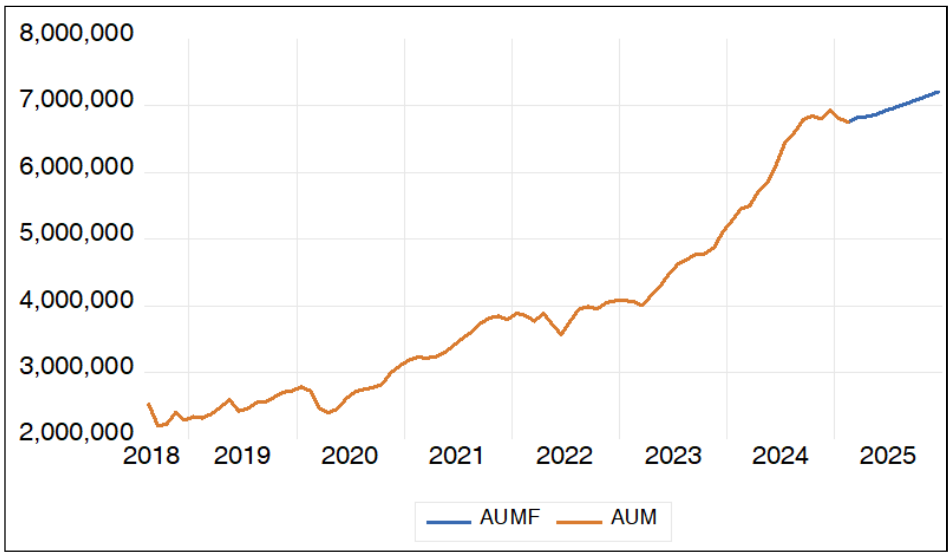


Table 2

Month	Actual AUM(In Cr.)	Forecasted AUM (In Cr.)
01-Aug-24	6604057	NA
01-Sep-24	6800485	NA
01-Oct-24	6850321	NA
01-Nov-24	6804913	NA
01-Dec-24	6932959	NA
01-Jan-25	6804760	NA
01-Feb-25	6758305	NA
01-Mar-25	NA	6824029.071
01-Apr-25	NA	6834880.683
01-May-25	NA	6863461.635
01-Jun-25	NA	6918140.386
01-Jul-25	NA	6960042.010
01-Aug--25	NA	7005902.598
01-sep-25	NA	7057590.827
01-oct-25	NA	7106425.922
01-Nov-25	NA	7156145.054
01-Dec-25	NA	7207165.498



Part IV

Findings and Recommendations

In the study of Sensex and AUM of mutual funds, there is very strong evidence that despite uncertainties due to the COVID-19 pandemic, the investment and number of investors have sharply increased in both areas. There could be a variety of reasons for it, the stimulus packages, government accommodative monetary policy, individuals' confidence in these instruments, lower to negligible returns in alternative instruments, increased foreign investment, and global unconventional monitory policies. Whatever the reason, the growth has been spectacular and is against stylized economic theories or models. This growth can be analysed from the angle of Behavioural Economics. What one finds is that all over the globe, the savers are moving out of traditional Hedge instruments towards riskier investments in search of higher returns. In fact, the returns in traditional instruments like Bank and Post offices deposits returns are almost zero in most countries. In reality, the returns are negative. More importantly, in the case of India, a new tech-savvy youth of middle and new rich class have grown in rise. Nearly 3 crore males and females belong to this group. In the age group of 20 to 35, many are not even married or have one or no child. They wish to become rich for themselves as well as their families, which, as per modern behavioural economics, is not irrational. They do not believe in bank FD or post office as the return there is bound to be limited. Moreover, with new investment apps, each individual (especially youth) has a smartphone and can invest in minutes. This has become more a same for them and money are ….. to invest even small seems as their scholarship so that they could earn a little and spend more lavishly. This generation Z and others are the new torchbearers of financial investment. A large number of profiles in Zerodha, Angel, are a result of all this new financial behaviour. So any geopolitical scenario like war or Trump tariffs will affect the market, but these negative effects will not be sustained in the Indian financial market. The number of domestic financial investors is set to rise and cross 20 crores by 2030.

References

1) A. Vennila, R. Nandhagopal (2012) "Investors' Preference towards Mutual Funds in Coimbatore City", European Journal of Social Sciences ISSN 1450-2267 Vol.29 No.1 (2012), pp. 115-125 [4]
2) Agapova, Anna, (2011), "The Role of Money Market Mutual Funds in Mutual Fund Families", Journal of Applied Finance, Vol. 21, Issue. 1, pp. 87-102.2.
3) Agarwal, Vikas; Boyson, Nicole M.; Naik, Narayan Y, 2009 "Hedge Funds for Retail Investors? An Examination of Hedged Mutual Funds", Journal of Financial & Quantitative Analysis, Vol. 44, Issue 2, pp. 273-305.
4) Ahmad, I., &Sinha, J. (2016).A study on relationship between macro-economic variable and stock market performance with reference to BSE-Sensex. International Journal of Applied Research, 2(2), 10-13.
5) Ajte, R, and Jovanovic, B, (1993) "Stock Markets and Development", European Economic Review", 37, pp.632-40.
6) Anagol Santosh, Venugopal B.et.all, (2013) 'Distribution Fees and Mutual Funds Flows: Evidence from a Natural Experiment in the Indian Mutual Funds Market,' WP 2013-004, Indira Gandhi Institute of Development Research, Mumbai.
7) Badrinath, S.G & Gubellini, S, (2011), "On the characteristics and performance of long-short, market-neutral and bear mutual funds", Journal of Banking & Finance, Vol. 35 Issue 7, pp.1762.
8) Barber, Brad M. and Odean, Terrance (2011), The Behavior of Individual Investors. SSRNJournal,: https://ssrn.com/abstract=1872211or http://dx.doi.org/10.2139/ssrn.1872211.
9) Campbell J, Lo A, MacKinlay C (1997): The Econometrics of Financial Markets. Princeton University Press, Princeton.NJ.
10) Èerný A, Koblas M (2008): Stock Market Integration and the Speed of Information Transmission. Finance a úvìr-Czech Journal of Economics and Finance, 58(1–2):2–20.

Websites

1) https://www.amfiindia.com/.
2) https://www.karvyonline.com/research/mutual-fund-report/mutual-funds-reports.
3) https://www.moneycontrol.com/mutual-funds/find-fund.
4) https://www.morningstar.in/.
5) https://www.mutualfundindia.com/.
6) https://www.rbi.org.in/scripts/Statistics.aspx.
7) https://www.sebi.gov.in/reports-and-statistics/publications/jul-2020/.
8) https://www.valueresearchonline.com/funds/.

Financial Inclusion or Debt Trap? Unpacking the Realities of DAY-NRLM's Credit Expansion

Dr. Alpana Lal[1] & Himanshu Gangwar[2]

ABSTRACT

The Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM) is India's flagship rural poverty alleviation program, designed to empower women through Self-Help Groups (SHGs) and facilitate financial inclusion. Since its inception in 2011, NRLM has mobilized over 9.73 crore rural women into 89.4 lakh SHGs, disbursing loans worth ₹2.87 lakh crore (approximately USD 41 billion) to enhance rural livelihoods. While the initiative has significantly improved access to credit and banking services, concerns have emerged regarding loan dependency, repayment sustainability, and the true extent of women's financial empowerment. This paper critically examines whether NRLM's credit expansion effectively fosters self-sustaining rural enterprises or inadvertently risks creating a cycle of debt. Findings reveal that while SHGs have greater financial access, many remain dependent on continuous borrowing rather than generating sustainable income. Challenges such as limited market access, low financial literacy, and male-dominated financial decision-making hinder true economic autonomy for women. Additionally, despite mandated social inclusion targets, ultra-poor and marginalized communities still face barriers in accessing NRLM benefits. To mitigate these concerns, policy recommendations include strengthening mechanisms for loan repayment tracking, improving market linkages for SHG enterprises, enhancing financial literacy programs tailored specifically for women, and ensuring targeted support for the most vulnerable groups. Ultimately, NRLM's credit model presents both opportunities and risks. While it has made significant strides in financial inclusion, its long-term success hinges on transitioning SHGs from credit dependence to self-sufficiency, ensuring that rural financial empowerment translates into lasting economic resilience rather than perpetuating cycles of debt.

Keywords: *Financial Inclusion, Self-Help Groups (SHGs), Women Empowerment, Credit Dependency, Debt Sustainability.*

INTRODUCTION

The Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM) is one of India's most ambitious poverty alleviation initiatives, designed to empower rural women through

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institutional credit, financial literacy, and livelihood opportunities. Since its launch in 2011, NRLM has played a transformative role in rural finance, mobilizing over 10 crore women into 90.87 lakh Self-Help Groups (SHGs) as of 2024. By providing easy access to credit and fostering self-employment, the program aspires to strengthen household incomes and create a more resilient rural economy. However, the rapid expansion of credit-driven microfinance raises a critical question—is NRLM truly fostering financial empowerment, or is it inadvertently pushing rural women into a debt trap?

To understand NRLM's impact, it is essential to examine its evolution from earlier rural credit schemes. Previous programs, such as the Integrated Rural Development Program (IRDP) (1978) and the Swarnjayanti Gram Swarozgar Yojana (SGSY) (1999), aimed at providing subsidized credit to the rural poor. However, these schemes suffered from high default rates, inadequate institutional support, and inefficiencies in loan recovery. NRLM was launched to address these shortcomings by shifting the focus from subsidy-driven credit to self-sustaining, demand-driven lending through SHGs. Unlike earlier programs, NRLM introduced financial training, capacity building, and peer-led repayment mechanisms, reducing rural women's dependence on informal moneylenders.

NRLM's model closely resembles the Grameen Bank microfinance system of Bangladesh, pioneered by Dr. Muhammad Yunus. Both approaches emphasize women-led entrepreneurship, group-based lending, and low-collateral loans to ensure financial inclusion for the poorest sections of society. However, there are notable differences. While NRLM provides subsidized loans through public sector banks and formal institutions, Grameen Bank operates as an independent microfinance entity with market-driven interest rates. Additionally, NRLM loans are often used for a mix of income-generation and household needs, whereas Grameen Bank strongly emphasizes entrepreneurial investments. Despite the success of microfinance in Bangladesh, studies have also highlighted concerns about over-indebtedness and repayment distress, raising questions about whether NRLM might be facing similar risks.

This paper critically evaluates NRLM's credit expansion by analyzing loan disbursement patterns, repayment challenges, financial risks, and gender-based disparities, supported by the latest available data. It also explores emerging concerns such as rising non-performing assets (NPAs) in SHG loans, climate-induced financial vulnerabilities, and the digital financial divide, which could undermine the program's long-term sustainability. While NRLM has undeniably provided rural women with unprecedented access to formal finance, it is imperative to assess whether this financial inclusion is truly empowering them or inadvertently pushing them into a precarious cycle of debt.

OBJECTIVES AND METHODOLOGY

Objectives

- Assess the financial sustainability of SHGs – Are they evolving into self-sufficient enterprises, or are they stuck in a cycle of borrowing?
- Evaluate women's empowerment through NRLM – Does economic participation translate into financial decision-making power?
- Analyze loan dependency risks – Are SHGs using loans for income generation, or are they simply servicing previous debts?

- Examine NRLM's inclusion model – Are the poorest and most marginalized benefiting, or is credit flowing to better-connected SHGs?

Methodology

This study adopts a mixed-method approach, integrating quantitative analysis, qualitative review, and contrast analysis. The quantitative analysis examines loan disbursement, repayment trends, and NPAs using NRLM's 2023-24 reports, assessing whether credit expansion aligns with financial inclusion goals. The qualitative review analyzes policy reports and case studies to evaluate NRLM's social impact, particularly on women's autonomy and economic independence. The contrast analysis compares NRLM's objectives with ground realities, focusing on loan sustainability, repayment challenges, and gender dynamics in financial decision-making. This approach provides a comprehensive evaluation of NRLM's effectiveness and potential risks in rural financial empowerment.

FINDINGS: IS NRLM A SUSTAINABLE MODEL OR A DEBT TRAP?

1. The Credit Boom: Financial Inclusion or Overdependence?

NRLM has significantly expanded rural credit access, disbursing ₹ 1.12 lakh crore to 39 lakh SHGs in FY 2023-24 alone. Through the SHG-Bank Linkage Program, millions of rural women have gained access to formal banking services, reducing reliance on exploitative moneylenders who charge exorbitant interest rates. This expansion marks a crucial step toward financial inclusion, enabling women to invest in small businesses, agriculture, and other income-generating activities.

However, while credit availability has surged, concerns over loan repayment sustainability persist. As of December 2023, total outstanding SHG loans stand at ₹ 2.31 lakh crore, indicating a growing long-term credit dependency. Many SHGs continue borrowing not for expansion but to repay old loans, raising fears of a perpetual debt cycle. Unlike conventional businesses that generate stable profits, many SHGs operate in low-margin sectors, making full loan repayment challenging.

Key Concern: Without robust repayment tracking mechanisms, SHGs risk shifting from financial empowerment to continuous borrowing, undermining the goal of self-sufficiency. If unchecked, this could mirror past microfinance crises where aggressive lending led to widespread over-indebtedness and defaults.

2. Are SHGs Becoming Self-Sustaining Enterprises?

NRLM envisions Self-Help Groups (SHGs) evolving into profitable, self-sustaining enterprises, yet many struggle to achieve long-term viability. Despite access to institutional credit, several challenges hinder their ability to generate consistent income and repay loans effectively. Limited market access restricts SHGs from scaling their businesses, as rural products often fail to reach larger consumer bases. Additionally, low-profit margins in agriculture, animal husbandry, and small-scale enterprises make it difficult for women to achieve financial stability. Many SHGs operate in highly competitive, low-return sectors, increasing their reliance on additional credit for survival rather than growth.

A critical challenge is weak financial literacy among rural women, which affects loan utilization and business decision-making. Many members lack formal training in bookkeeping, investment strategies, and pricing models, leading to mismanaged funds and repayment struggles. This gap in financial education often results in loan cycles where new credit is used to repay existing debt, rather than funding expansion or innovation. As of 2023, only 5.76 lakh farmers have been integrated into Farmer Producer Organizations (FPOs), significantly limiting rural market linkages and reducing SHGs' ability to scale up.

Key Concern: Many SHGs remain financially fragile, relying on fresh loans rather than sustainable income generation. Without strategic interventions in market access, business training, and financial planning, SHGs risk becoming credit-dependent rather than self-sufficient economic units.

3. Women's Empowerment: Financial Access vs. Financial Autonomy

NRLM has made significant strides in women's financial inclusion, mobilizing 3.56 crore women as Community Resource Persons (CRPs) and integrating them into the Self-Help Group (SHG) model. This has enabled rural women to access formal credit, engage in income-generating activities, and participate in financial networks. However, a critical concern remains—does financial access translate into true financial autonomy?

Despite being primary borrowers, many rural women lack control over financial decision-making. While they participate in SHGs, the actual power to allocate funds often rests with male family members. In many cases, loans taken under women's names are used for household expenses, agricultural investments, or business activities managed by male relatives. As a result, women bear the responsibility of repayment but have little say in how the funds are utilized, limiting their ability to gain economic independence.

Another major barrier is the lack of financial literacy and leadership training, which prevents women from fully understanding loan terms, negotiating better financial opportunities, and making independent business decisions. Many SHG members remain dependent on group consensus or male guidance, reinforcing existing patriarchal financial structures rather than challenging them.

Key Concern: While NRLM has successfully expanded women's financial inclusion, true economic agency remains elusive without broader social and structural reforms that empower women beyond just access to credit.

4. Social Inclusion: Are the Poorest Truly Benefiting?

NRLM emphasizes inclusive development, mandating 50% SC/ST representation, 15% minority participation, and 3% inclusion for persons with disabilities (PwDs). These quotas aim to ensure that the most marginalized communities benefit from financial support and livelihood opportunities. However, real-world implementation presents significant challenges, raising concerns about whether the ultra-poor are truly benefiting from NRLM's credit expansion.

One major issue is geographical disparity—some states receive more funding, better institutional support, and stronger SHG networks, while others lag due to weaker administrative capacity. This

uneven distribution results in varied success rates across different regions, with well-funded areas experiencing stronger financial inclusion outcomes compared to underdeveloped ones.

Additionally, many ultra-poor households still struggle to access SHG loans, despite NRLM's objectives. Lack of awareness, documentation issues, and social exclusion often prevent the most vulnerable groups from fully participating in SHG activities. In some cases, SHGs are formed simply to meet quota requirements rather than genuinely serving the poorest households, reducing the program's intended impact.

Key Concern: While NRLM has successfully met its inclusion targets on paper, true financial upliftment for the ultra-poor remains inconsistent. Without better targeting strategies, equitable resource distribution, and stronger outreach efforts, NRLM risks excluding those who need financial support the most.

POLICY RECOMMENDATIONS

Improve Loan Repayment Tracking – Implement a transparent and data-driven credit monitoring system to track SHG loan repayments, detect signs of over-indebtedness, and ensure financial sustainability. Regular impact assessments should be conducted to evaluate whether loans are leading to income generation or dependency.

Enhance Market Access for SHGs – Expand rural market linkages, e-commerce platforms, and supply chain integration to help SHG enterprises reach broader consumer bases. Government and private sector collaborations should facilitate direct producer-to-consumer networks, reducing reliance on intermediaries and increasing profitability.

Strengthen Financial Literacy & Leadership Training – Move beyond basic financial access by equipping women with financial management skills, business planning knowledge, and leadership training. Programs should focus on budgeting, investment strategies, and decision-making power, ensuring women gain true economic autonomy rather than just loan accessibility.

Prioritize True Inclusion – Strengthen outreach efforts to ensure ultra-poor households, SC/ST communities, minorities, and persons with disabilities (PwDs) receive real financial benefits. This includes customized financial products, flexible repayment structures, and mentorship programs to help marginalized groups transition from subsistence to self-sufficiency.

CONCLUSION

NRLM has undoubtedly expanded financial access for millions of rural women, fostering economic participation and entrepreneurship. However, its long-term impact remains uncertain, as many SHGs struggle with loan repayment, market access, and financial sustainability. While some groups have successfully transitioned into self-sufficient enterprises, many remain reliant on continuous borrowing, increasing the risk of long-term debt accumulation. Financial inclusion has improved significantly, but the lack of proper loan repayment tracking raises concerns about the sustainability of SHG credit cycles. Additionally, although women's participation in economic activities has increased, true financial autonomy remains elusive, as many still lack decision-making power over funds.

A key challenge is that many SHGs are dependent on borrowing rather than operating profitable businesses, making them vulnerable to financial instability. Furthermore, despite NRLM's strong inclusion policies, ultra-poor communities continue to face barriers to meaningful economic upliftment due to geographical disparities and limited access to financial resources. Addressing these issues requires strategic policy interventions, including transparent loan repayment tracking, expanded market linkages, enhanced financial literacy and leadership training, and targeted support for marginalized communities. Without these measures, NRLM risks becoming a system of perpetual credit dependency rather than a model of sustainable financial empowerment.

Ultimately, NRLM's credit expansion is a double-edged sword. While it has the potential to transform rural livelihoods, it may also create cycles of rural indebtedness if not managed effectively. To achieve true economic empowerment, the focus must shift from loan disbursement to long-term financial sustainability, ensuring that SHGs evolve into independent, self-reliant economic units rather than long-term credit dependents.

REFERENCES

1. Government of India. (2023). Annual Report 2022–23: Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM). Ministry of Rural Development. https://aajeevika.gov.in/en/content/annual-report
2. Government of India. (2024). SHG-Bank Linkage Programme: Status Report as on December 2023. Ministry of Rural Development. https://nrlm.gov.in
3. International Bank for Reconstruction and Development / The World Bank. (2022). Transforming India's Rural Economy: The Role of DAY-NRLM in Strengthening Women-Led Livelihoods. https://documents.worldbank.org
4. Ministry of Rural Development. (2021). Impact Assessment of DAY-NRLM: Third-Party Evaluation Report. Government of India. https://rural.nic.in
5. NABARD. (2023). Status of Microfinance in India 2022–23. National Bank for Agriculture and Rural Development. https://www.nabard.org
6. Planning Commission. (2011). Evaluation Report on SGSY: Lessons for NRLM. Government of India. https://planningcommission.gov.in
7. Reserve Bank of India. (2023). Report on Trends and Progress of Banking in India 2022–23. https://rbi.org.in
8. UN Women. (2021). Gender-Responsive Budgeting in India: Assessing the Impact of NRLM on Women's Empowerment. https://unwomen.org
9. Yunus, M. (2007). Creating a world without poverty: Social business and the future of capitalism. Global Urban Development Volume 4 Issue 2 November 2008. https://globalurban.org/GUDMag08Vol4Iss2/Yunus.pdf

Issues before the Sixteenth Finance Commission

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ABSTRACT

The onset of the era of Sixteenth Finance Commission, presentation of Budget2025-26 and the launch of Fiscal Health Index by NITI Ayog has given a prospect to the academicians to dwell upon the current situation of Indian economy. In the recent times, quite a number of reforms have taken place in the budgeting system of India, FRBM & amended FRBM act are the landmarks. The obligations of said rules were with central Government to ensure the fiscal responsibility andtransparency with regional parity.

"The terms of Reference for the Sixteenth Finance Commission will be notified in due course of time. The 16th FC's recommendations, upon the acceptance by the government, would cover the period of five years commencing April1, 2026." On 30th of January 2024, in the name of President of India the public order has been issued for the constitution of the 16th FC. The FC shall make recommendations for the devolution of consolidated fund, grants–in-aid and the measures needed to augment the Consolidated Fund of states. The current paper shall put forward the issues and challenges before the sixteenth finance Commission. The features of the Fiscal Health Index shall also be a part of this study.

Keywords: *Finance Commission, Recommendations,Fiscal health Index.*

Introduction

The President of India appoints Finance Commission every five years or earlier to endeavor the recommendations for fiscal mobilization. The Presidential Terms of References are the base of the pattern of devolution that Finance Commission devices. In light of clause -1 of article 280 of the Constitution the President of Indiaconstituted the finance commission on 31st December 2023,with Dr.ArvindPangariya as the chairman. The federal set-up of India is a multi-jurisdictional union with a strong and superior national government and internally autonomous member States. Indian fiscal federalism basically evolves the pattern of devolution of resources among three tiers Government. Previous FCs have recommended policy suggestions for improving the state level fiscal transparency in budgetary processes and debt-deficitdynamics.

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On the launch of Fiscal Health Index report,CEO of NITI AyogSh. BVR Subrahmanyam, announced,*"The Fiscal Health Index report will be an annual publication focusing on the fiscal health of Indian states, offering data-driven insights that will be leveraged for informed state-level policy interventions to improve overall fiscal governance, economic resilience, and stability of the nation"*. His words throw light on the roadmap of the issues before Sixteenth Finance Commission.In this paper the

Set of key evaluating key indicators of FHI and the TOR of the XVI FC shall be taken as the base of discussion.

Federal System in India: India has a federal form of government hence the financing system is also federal.The constitution of independent India accepted this basic principle of federal finance. The basic principle of federal finance is that all the constituent units should have adequate resources of revenue. Moreover wide spread inter-state disparity proclaims special status to some States.The President of India appoints Finance Commission every five years or earlier to endeavor the recommendations for fiscal mobilization. The Presidential Terms of References are the base of the pattern of devolution that Finance Commission devices.

The remit of the FC, as laid out in its terms of reference (ToR), has expanded over the years due to Presidential order under Article 280(2c) which provides for the Commission to consider "any other matter referred to the Commission by the President in the interests of sound finance The recommendations of finance commissions are based on the economic and financial data collected from the Union and State Governments. Since Finance Commission is a temporary body and sets forth recommendations for upcoming years need complete updating".

Terms of Reference for sixteenth Finance Commission: India is a developing nation with the challenges of regional disparity. To serve the purpose of development with a blend of rational equity is the basic cause of the establishment of Finance Commission. The task of transfer of tax proceeds among Centre and State has been the main focus of the recommendations of past 15 Finance Commissions.In the spirit of cooperative federalism the role of FCs in India is to make recommendations The XVI FC will be submitting its report by 31st of October 2025, related to above mentioned matters including recommendations for the financing for Disaster Management.

The Sixteenth Finance Commission shall make recommendations as to the following matters, namely: —

1. The distribution between the Union and the States of the net proceeds of taxes which are to be, or may be, divided between them under Chapter I, Part XII of the Constitution and the allocation between the States of the respective shares of such proceeds;
2. The principles which should govern the grants-in-aid of the revenues of the States out of the Consolidated Fund of India and the sums to be paid to the States by way of grants-in-aid of their revenues under article 275 of the Constitution for the purposes other than those specified in the provisos to clause (1) of that article; and
3. The measures needed to augment the Consolidated Fund of a State to supplement the resources of the Panchayats and Municipalities in the State on the basis of the recommendations made by the Finance Commission of the State. The Sixteenth Finance Commission may review the present arrangements on financing Disaster Management initiatives, with reference to the funds

constituted under the Disaster Management Act, 2005 (53 of 2005), and make appropriate recommendations thereon.

Fiscal Health Index: "The Fiscal Health Index 2025 offers a valuable tool for assessing the fiscal performance of Indian states. It highlights the need for continuous monitoring, prudent fiscal management, and proactive measures to enhance states' financial health. The Index underscores the importance of revenue generation, efficient expenditure management, debt control, and adherence to fiscal deficit targets for overall fiscal sustainability."

The objectives of FHI are to put forth a comparative analysis of fiscal health of Indian States, initially 18 states have been chosen for this standardized matrix. For the better fiscal health of the Indian states and enhancing fiscal sustainability and resilience identification of areas of strength and concern states are the main areas of focus. To promote fiscal transparency, accountability and prudent fiscal management will be the assessing parameters for the policymakers.

Variables and Data Interpretation: Five major sub-indices are aggregated to form Fiscal health Index and the data is sourced from Comptroller and Auditor General (CAG)."A comprehensive overview of budgetary transactions for all states for the period 2022-23 is utilized for index calculation and subsequent analysis." Following five Major Sub-Indices are aggregated to form the FHI-

MAJOR SUB-INDICES	MINOR SUB-INDICES	
1.Quality of Expenditure	1.1	Total Developmental Expenditure/Total Expenditure
	1.2	Total Capital Outlay/GSDP*
2.Revenue Mobilization	2.1	State own Revenue/GSDP*
	2.2	State own Revenue/Total Expenditure
3.Fiscal Prudence	3.1	Gross Fiscal Deficit/GSDP*
	3.2	Revenue Deficit/GSDP*
4.Debt Index	4.1	Interest Payments/Revenue Receipts
	4.2	Outstanding Liabilities/GSDP*
5.Debt Sustainability	5.1Growth Rate of GSDP*-Growth Rate of Interest Payments	

Source: FHI Report 2025

*GSDP at current prices for the year 2022-23

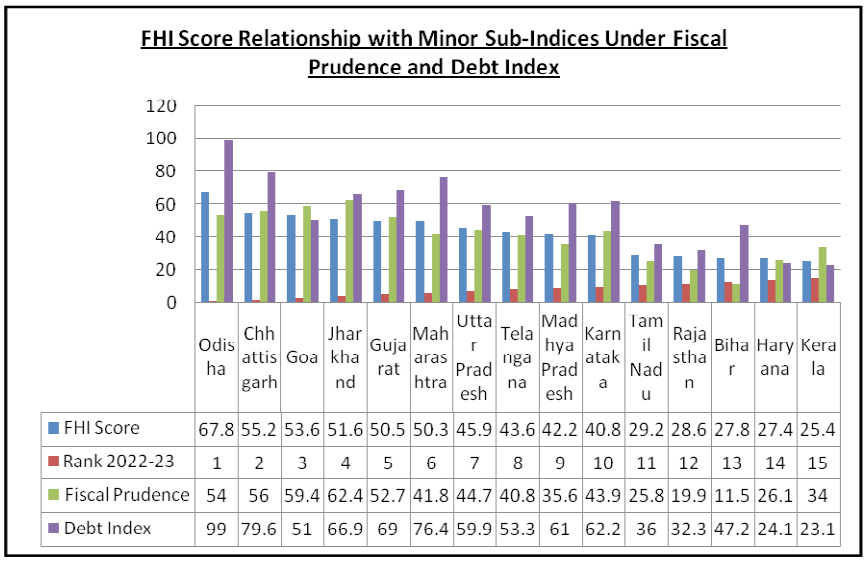
The minor sub-indices are classified into one of the two categories:the Improvement Index or the Deprivation Index.

Improvement Index:The minor sub-indices under Quality of expenditure, Revenue Mobilization, and Debt Sustainability are considered as:

- Improvement Index for a State i$= \frac{Xi - Min(X)}{Target(X) - Min(X)} * 100$

- Deprivation Index for a State i $= \frac{Max(X)-Xi}{Max(X)-Target(X)} * 100$
- Xi= the value for particular minor sub-index under Fiscal Prudence and Debt Index
- Max(X) = the maximum value for particular minor sun-index across all states in the specified period
- Target(X) = the lowest value(of the minimum of all the states in the each year) observed over the past 9 years.
- The major sub-indices are then computed by taking arithmetic mean of normalized values of the corresponding minor sub-indices for each state.
- The final composite FHI score is computed by taking the arithmetic mean of the five major sub-indices computed in the above step.

FHI Score Relationship with Minor Sub-Indices under Fiscal Prudenceand Debt Index: The Fiscal Health Index 2025 offers a valuable tool for assessing the fiscal performance of Indian states. It highlights the need for continuous monitoring, prudent fiscal management, and proactive measures to enhance states' financial health. The Index underscores the importance of revenue generation, efficient expenditure management, debt control, and adherence to fiscal deficit targets for overall fiscal sustainability. **The FHI report has been shared with all States/UTs to help them evaluate their fiscal performance across key indicators. States are encouraged to adopt sustainable fiscal practices suited to their economies and work towards fiscal prudence through appropriate state-level interventions.**As per the report of, FHI 2025: "As states are responsible for approximately **two-thirds of public spending** and **one-third of total revenue**, their fiscal performance is important for the country's overall economic stability."



	Odisha	Chhattisgarh	Goa	Jharkhand	Gujarat	Maharashtra	Uttar Pradesh	Telangana	Madhya Pradesh	Karnataka	Tamil Nadu	Rajasthan	Bihar	Haryana	Kerala
FHI Score	67.8	55.2	53.6	51.6	50.5	50.3	45.9	43.6	42.2	40.8	29.2	28.6	27.8	27.4	25.4
Rank 2022-23	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Fiscal Prudence	54	56	59.4	62.4	52.7	41.8	44.7	40.8	35.6	43.9	25.8	19.9	11.5	26.1	34
Debt Index	99	79.6	51	66.9	69	76.4	59.9	53.3	61	62.2	36	32.3	47.2	24.1	23.1

Source: FHI Report 2025

The FHI categorizes states into four groups based on their performance:

- **Achievers**: Odisha, Chhattisgarh, Goa, Jharkhand, Gujarat
- **Front-Runners**: Maharashtra, Uttar Pradesh, Telangana, Madhya Pradesh, Karnataka
- **Performers**: Tamil Nadu, Rajasthan, Bihar, Haryana
- **Aspirational**: Kerala, West Bengal, Andhra Pradesh, Punjab

Odisha excels in fiscal health with the highest overall index score of 67.8. It tops the Debt Index (99.0) and Debt Sustainability (64.0) rankings with better than average scores under Quality of Expenditure and Revenue Mobilization. The state has maintained low Fiscal Deficits, a good debt profile, and an above average Capital Outlay/GSDP ratio. • Chhattisgarh and Goa follow, with scores of 55.2 and 53.6, respectively. Chhattisgarh stands out for its Debt Index, while Goa stands for Revenue Mobilization

Common Objectives and Principles of 16th Finance Commission and FHI: The **(FHI)2025**, and the **16th Finance Commission** share common objectives and principles aimed at enhancing India's fiscal health and promoting equitable development across states. Some of the common issues are as following:

- **Fiscal Prudence:** FHI puts forward the performance of Indian States in relation to fiscal prudence, focusing on deficits, borrowing, and debt sustainability. Similarly, 16thFinance Commissionemphasizes on fiscal discipline by considering states' fiscal performance in its recommendations.
- **Revenue Mobilization:**The 16th FC has already done the homework of collecting the information regarding revenue mobilization;**the assessment of FHI 2025** has also observed the states' ability to generate revenue through taxes and non-tax sources. States' revenue generation efforts had always remain the focus point of **previous Finance Commission's while**determining the states' share of central taxes.
- **Balanced Regional Development:** FHI 2025 aims to identify fiscal disparities among states and encourages balanced development through improved fiscal practices. Basically, Finance Commission are constituted form addressing regional disparities by considering factors like population, area, and fiscal performance in its devolution formula.16th Finance Commission shall also be devising the Horizontal Devolution formula for Inter-se distribution.
- **Transparency and Accountability:** According to RBI (2001), "fiscal transparency is important because fiscal soundness is one of the core requirements for financial stability and transparency is needed for markets to be able to assess fiscal soundness accurately."16th Finance Commission also advocates for transparency in fiscal reporting and accountability in the utilization of central funds.FHI 2025 Promotes transparency by publicly ranking states based on their fiscal health, encouraging accountability in fiscal management.

Conclusion

Basically in India the role of fiscal federalism is related to taxation and expenditure responsibilities and to devise system between the different levels of government. To tackle with two important issues of vertical and horizontal imbalances is the challenge faced by the federal framework.

The 16thFC is crucial because it India is moving towards five Trillion economy spectrum, and Fiscal Sustainability is to be achieved for empowering Local Governments for equitable development and inclusive growth.15th FC introduced some important decision like - 41%states' share in divisible pool,base 2011population census and TFR criteriaandempowering local Governments for horizontal devolution.The 16th Finance Commission has been requested to make its report available by 31st of October 2025.

To determine each state's share of the divisible pool the traditional way of devolution was based on the criteria of; Population, Income Distance Area Cover and Disaster management .In light of FHI 2025 report and observation of the report of previous FCs it is clear that the formulaic of devolution of resources may have some additional categories i.e. Fiscal Transparency,Debt Management.

References

1. Ahmad, Ehtisham(1997),"Intergovernmental Transfers-An international perspective", in Ehtisham Ahmad(Ed), *Financing Decentralized Expenditures: an International Comparison of Grants,*Edward Elgar Publishers, Cheltenham,UK
2. Buchanan, James M(1950), "Federalism and Fiscal Equity", American Economic Review, Vol 40.No.4
3. Kelkar,Vijay,(2019), "Towards India's New Fiscal federalism", NIPFP Working paper series:No.252, January 25,.
4. Mohanty,R..K., and Panda., S.(2019.)Hoe Does Public Debt affects the Indian Macro-economy? A structural VAR Approach, Working Paper No.250
5. Fifteenth Finance Commission: Terms of Reference 'The Gazette of India'.
6. Fourteenth Finance Commission vol-1
7. Fifteenth Finance Commission Vol-1
8. https://www.pib.gov.in/PressReleasePage.aspx
9. Gold, Steven D. (1996), "The Potential Impacts of Devolution on State Government Programs and Finances Testimony Finances before the House Budget Committee".
10. Rao, M. Govinda ,(2015), "Central Transfers To States in India", Final Report of a Study Submitted to NITI Aayog.
11. https://www.nip.org.in/publications/working-papers/1846
12. Indian Public Finance statistics,2024-25
13. https://www.niti.gov.in/sites/default/files/2025-01/Fiscal_Health_Index_24012025
14. https://prsindia.org/files/budget/State_of_State_Finances-2024-25.pdf
15. https://www.pib.gov.in/PressReleaseIframePage.aspx?PRID=1991931
16. https://www.pib.gov.in/PressReleasePage.aspx?PRID=1693868
17. https://cag.gov.in/en/audit-report?gt=49

Transforming Fiscal Policy: Strategies for Economic Stability in India

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ABSTRACT

This paper examines the fiscal policy and fiscal consolidation in India, focusing on their implications for economic stability, capital formation, employment generation, and income distribution. It highlights the objectives of fiscal policy tailored to address the unique challenges faced by developing countries, particularly in the Indian context. The analysis reviews the theoretical underpinnings of fiscal policy, with an emphasis on its application in promoting economic growth and social justice. Key findings suggest that India's focus on prudent fiscal consolidation, as guided by the Fiscal Responsibility and Budget Management (FRBM) Act, has successfully reduced fiscal deficits, enhanced public investment, and improved the efficiency of tax revenue collection. The paper posits that effective fiscal policies can significantly contribute to equitable economic growth, supporting the broader goals of development and social cohesion. The implications for policymakers and future research directions are also discussed.

Keywords: *Fiscal Policy, Fiscal Consolidation, Economic Stability, Capital Formation, Employment Generation, Income Distribution, India, Social Justice, Public Debt.*

Introduction

Fiscal policy refers to the strategies that are determined by the government budget, income, and expenditure. The primary objective of this policy is to ensure that the demand in the economy does not excessively rise or fall, leading to economic instability. According to Dalton, fiscal policy is a process through which the government employs various measures, including income, expenditure, and debt, to achieve its predetermined goals. Arthur Smithies describes this policy as one wherein the government uses its spending and income programs to positively impact national income, production, and employment.The duration of this policy is primarily determined considering development, employment, inflation, and social welfare. The scope and operational methodology of fiscal policy can vary for each country, as it prioritizes the country's economic condition and social structure.

Fiscal Consolidation

Fiscal consolidation refers to the prudent management of government finances aimed at ensuring long-term economic stability by balancing government revenues (both tax and non-tax receipts)

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with expenditures. Its primary objectives include minimizing fiscal deficits, controlling public debt, and supporting sustainable economic growth. Key features of fiscal consolidation include focusing expenditures on essential sectors such as infrastructure, health, and education, optimizing revenue through enhanced tax collection and reduced evasion, limiting fiscal deficits to avoid excessive borrowing, managing public debt sustainably to prevent economic crises, and ensuring transparency and accountability through audits and regulatory compliance.

Fiscal policy has several key objectives that evolve with changing times and circumstances. The primary aim is to achieve full employment, ensuring all citizens have access to dignified and self-sustaining jobs, which enhances individual welfare and strengthens the national economy. Additionally, it focuses on maintaining economic stability by controlling inflation and unemployment, thereby preventing potential crises through the regulation of demand and supply levels. Promoting economic development is another critical goal, as the government strives to generate resources and implement reforms for accelerated growth. Furthermore, ensuring equitable distribution of income is essential to eliminate disparities and promote social harmony among all sections of society. Lastly, fiscal policy emphasizes the proper utilization of resources, reallocating them from unproductive to productive sectors to maximize developmental potential.

In developing countries, fiscal policy objectives are tailored to address their unique challenges and circumstances. A primary objective is to promote capital formation, as raising adequate capital is essential for economic growth in these regions. Additionally, governments aim for a high rate of economic growth by effectively utilizing fiscal measures to enhance production, consumption, and distribution. Increasing employment opportunities is another crucial focus, as job creation not only fuels economic growth but also augments the country's overall production capacity. Lastly, improving income distribution remains a significant goal, ensuring that the benefits of growth are equitably shared among different segments of the population, thereby fostering social stability and cohesion.

Review of Literature

Various scholars have explored the role of fiscal policy in economic stabilization and development. According to Keynesian economics, government intervention through fiscal measures is essential for managing economic fluctuations and promoting growth (Keynes, 1936, The General Theory of Employment, Interest, and Money). Conversely, the New Classical and Supply-Side theories argue for limited government intervention and emphasize tax cuts and deregulation as means for driving economic growth (Friedman, 1962, Capitalism and Freedom). Research by Alesina and Ardagna (2010, The Design of Fiscal Consolidation) suggests that prudent fiscal consolidation, characterized by sustainable measures, can lead to a reduction in public debt and stimulate economic growth. Other scholars, such as Giavazzi and Pagano (1990,"Can Severe Fiscal Contractions be Expansionary?), demonstrate the positive effects of fiscal policies that focus on reducing deficits and enhancing public investment on long-term economic performance.

Former Prime Minister of India, Professor Manmohan Singh, has been a proponent of using fiscal policy as a tool for economic reform and growth, particularly during his tenure as Finance Minister in the early 1990s. In his book Transforming India: Challenges to the World's Largest Democracy(2014), Singh argued for a balanced approach that combines fiscal consolidation with economic liberalization to stimulate growth while maintaining social equity. He emphasized the

importance of public investment in infrastructure and education to enhance productivity and competitiveness, thus promoting a more inclusive economic environment.

Gita Gopinath and **Abhijit Banerjee** have also made significant contributions to this discourse. Gita Gopinath, the Chief Economist of the International Monetary Fund, elaborates on the need for fiscal policies that are responsive to economic downturns, particularly due to the disruptions caused by the COVID-19 pandemic in her articles and publications since 2020. In her 2021 paper, Fiscal Policy for the Crisis, she advocates for targeted fiscal measures that provide immediate relief while promoting long-term structural reforms to bolster economic resilience.

Abhijit Banerjee, a Nobel laureate in Economic Sciences, underscores the necessity of implementing well-designed fiscal programs aimed at poverty reduction and social welfare. In his influential book Good Economics for Hard Times (2019), co-authored with Esther Duflo, Banerjee emphasizes the importance of using fiscal policy to uplift marginalized communities and stimulate inclusive growth, aligning with the objectives of equitable income distribution.

India's fiscal landscape has undergone significant changes post-2000, particularly with the introduction of the Fiscal Responsibility and Budget Management (FRBM) Act of 2003. The act's emphasis on reducing fiscal deficits and controlling public debt has been pivotal for enhancing macroeconomic stability (RBI Reports, 2020). Recent analyses have also focused on the economic impact of the COVID-19 pandemic and subsequent fiscal responses (World Bank, 2021).

Objective of the Paper

The objective of this paper is to analyze the fiscal policy and fiscal consolidation in India, assessing their impact on economic stability, capital formation, employment generation, and income distribution. It aims to explore how fiscal measures taken by the Indian government contribute to long-term economic growth, social justice, and the equitable distribution of wealth in the context of the unique challenges faced by developing countries.

Hypothesisof the Paper

1. **Hypothesis 1**: Effective fiscal policy in India positively contributes to economic stability by reducing fiscal deficits and controlling public debt, thereby fostering long-term economic growth.
2. **Hypothesis 2**: Fiscal consolidation measures enhance capital formation and employment opportunities in India, which leads to improved income distribution and social equity.

By testing these hypotheses, the paper aims to provide empirical evidence on the impact of fiscal policy and fiscal consolidation on India's economic development and stability.

Methodology of this Paper

The methodology of this paper adopts a mixed-methods approach, combining quantitative and qualitative analyses to explore fiscal policy and fiscal consolidation in India. Quantitative data on fiscal indicators (e.g., fiscal deficit and tax revenue) and economic metrics (e.g., GDP growth and unemployment rates) will be sourced from government reports and international organizations,

followed by descriptive and econometric analysis to assess their impacts. Qualitatively, the study will review relevant literature and case studies to contextualize findings within India's socio-economic landscape. The two hypotheses will be tested using regression analysis, providing insights into fiscal policy's role in promoting economic stability and social equity while acknowledging limitations such as data availability and external economic influences.

Fiscal and Economic Stability in India

Enhancing the distribution of income and wealth is essential for establishing social justice. This helps support the lowest sectors of society and maintains economic harmony.Fiscal consolidation significantly influences economic stability and growth in several ways, and is closely linked to effective fiscal policy. By controlling inflation, the Fiscal Responsibility and Budget Management (FRBM) Act of 2003 helped reduce the fiscal deficit from 4.5% of GDP in 2013-14 to 3.4% in 2018-19, thereby stabilizing prices and keeping inflation in check through constraints on excessive borrowing and government spending. Moreover, through prudent fiscal policy measures, the government has aimed to achieve a balanced budget, thereby fostering confidence in the economy.

Additionally, the increase in capital expenditure, particularly during the COVID-19 pandemic, prioritized sectors like MSMEs and displaced individuals, boosting capital spending from 1.6% of GDP in 2014-15 to 3.2% in 2023-24. This approach mitigated negative economic impacts on vulnerable sectors and improved essential infrastructure, ensuring long-term economic growth. Furthermore, the digitization of the tax system has enhanced revenue collection efficiency, raising tax revenues from 10% of GDP in 2014-15 to 11.8% in 2023-24, thereby enhancing the government's capacity to invest in public services and further implement effective fiscal policies.

Fiscal Indicators - Rolling Targets as a Percentage of GDP

Head of fiscal policy	Revised Estimates	Budget Estimates
	2023-24	2024-25
1. Fiscal Deficit	5.8	5.1
2. Revenue Deficit	2.8	2.0
3. Primary Deficit	2.3	1.5
4. Tax Revenue (Gross)	11.6	11.7
5. Non-tax Revenue	1.3	1.2
6. Central Government Debt	57.8	56.8

(**Source:** Medium Term Fiscal Policy cum Fiscal Policy Strategy Statement)

In the Indian context, the Union Budget data for 2023–24 (Revised Estimates) and 2024–25 (Budget Estimates) reflects the government's focus on fiscal consolidation. The **fiscal deficit** is projected to decline from **5.8% to 5.1%** of GDP, indicating reduced borrowing needs. The **revenue deficit** is also expected to fall from **2.8% to 2.0%**, showing improved revenue-expenditure balance. The **primary deficit**, which excludes interest payments, is estimated to come down from **2.3% to 1.5%**, suggesting tighter control on spending. On the revenue side, **gross tax revenue** remains stable, inching up from **11.6% to 11.7%**, while **non-tax revenue** slightly dips from **1.3% to 1.2%**.

Importantly, the **central government's debt** as a percentage of GDP is projected to reduce from **57.8% to 56.8%**, reflecting a gradual move towards fiscal sustainability.

Conclusion

This paper underscores the critical role of fiscal policy and fiscal consolidation in steering India's economic trajectory towards stability, growth, and equity. Through a rigorous analysis of fiscal strategies shaped by the Fiscal Responsibility and Budget Management (FRBM) Act, it is evident that prudent fiscal management has effectively reduced deficits, controlled public debt, and bolstered public investment. The findings indicate that such fiscal measures not only stabilize the economy but also enhance capital formation and employment opportunities, ultimately promoting a more equitable distribution of income.In the context of developing nations, the adaptability of fiscal policy to local challenges is paramount. India's unique socio-economic landscape necessitates a focus on capital formation, job creation, and equitable growth, which are integral to its long-term developmental strategies. The progressive reforms undertaken in taxation and government spending—including increased capital expenditure during the pandemic—demonstrate a commitment to fostering economic resilience while addressing societal needs.Furthermore, by integrating a consumption-driven growth model, the Indian government's fiscal policies aim to stimulate economic activity and improve living standards for its citizens. The anticipated shifts in income tax rates and interest rates signify a roadmap towards elevating India to a high-income status by 2047, provided there is a sustained balance between demand and supply.

Ultimately, the paper highlights the crucial interplay between effective fiscal policies and the broader objectives of social justice, economic development, and public welfare. As India navigates its path towards sustained economic prosperity, ongoing research and policy innovation will be essential in adapting fiscal strategies to meet evolving challenges and opportunities. Effective fiscal management not only lays the groundwork for economic stability but also fosters inclusive growth that uplifts all segments of society, promoting social cohesion in a rapidly changing world.

References

- Alesina, A., & Ardagna, S. (2010). Large changes in fiscal policy: Taxes versus spending. Tax Policy and the Economy, 24(1), 37-68.
- Bahl, R. W., & Linn, J. F. (1992). Urban public finance in developing countries. Oxford University Press.
- Banerjee, A., & Duflo, E. (2019). Good economics for hard times: Better answers to our biggest problems. PublicAffairs.
- Friedman, M. (1962). Capitalism and freedom. University of Chicago Press.
- Giavazzi, F., & Pagano, M. (1990). Can severe fiscal contractions be expansionary? In O. J. Blanchard & S. Fischer (Eds.),NBER macroeconomics annual (Vol. 5, pp. 75-122). The MIT Press.
- Gopinath, G. (2021). Fiscal policy for the crisis. IMF Blog. International Monetary Fund.
- Keynes, J. M. (1936). The general theory of employment, interest, and money. Harcourt Brace.
- Reserve Bank of India. (2020). Annual report 2019-20.
- Singh, M. (2014). Transforming India: Challenges to the world's largest democracy. HarperCollins.
- World Bank. (2021). India's economic recovery: Strategies and lessons post COVID-19.

Homestay Activities and their Impact on Entrepreneurial Income in Himalayan Tourism Regions

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Introduction

Homestays have emerged as a transformative model within rural tourism by offering a symbiotic relationship between local cultural preservation and income generation for host communities. Unlike conventional tourism accommodations, homestays facilitate direct interaction between visitors and residents allowing travellers to experience local traditions, cuisine and lifestyles while simultaneously creating localized economic opportunities (Scheyvens, 2002; Goodwin & Santilli, 2009). This form of tourism has become increasingly prominent in developing regions where rural households often diversify their income sources in response to seasonal agriculture or migration trends.

In the context of India's hill states like Uttarakhand, the homestay sector has gained significant grip as a viable and inclusive mechanism for livelihood generation. This form of tourism not only capitalizes on the region's cultural and ecological richness but also presents a sustainable alternative to outmigration and agrarian distress both persistent challenges in Himalayan economies (Kumar & Thakur, 2014). When developed with strong community participation, homestays contribute substantially to rural household incomes and catalyse local economic development (Roy & Roy, 2015; Singh & Mishra, 2020). They do so by engaging family members in diverse roles such as hosts, culinary specialists, guides and performers, thereby integrating tourism into the socio-economic fabric of rural life and enhancing both economic and social capital. The economic value of homestays extends well beyond the provision of accommodation. It encompasses a wide array of ancillary services including local cuisine, cultural experiences, handicrafts and eco-guiding, all of which foster employment opportunities within the household and the broader community (Pusiran & Xiao, 2013; Bhatia, 2013). These services often draw on locally available skills and resources, reinforcing the principle of endogenous development. By facilitating localized value chains, homestays strengthen backward and forward economic linkages through which local agricultural producers gain new markets through homestay kitchens and artisans benefit from increased sales of handicrafts and souvenirs (Goodwin & Santilli, 2009; Mitchell & Ashley, 2010). The multiplier effect of this model

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lies in its capacity to retain tourist expenditure within the local economy, thereby minimizing economic leakage and maximizing local ownership and benefit sharing.

Homestay-based tourism also exhibits strong alignment with the principles of sustainable development and responsible tourism, particularly in the context of global preferences shifting toward experiential and eco-friendly travel (UNWTO, 2017). As a community-driven model, it supports several Sustainable Development Goals (SDGs), particularly those related to poverty alleviation (SDG 1), gender equality (SDG 5) and the promotion of sustainable cities and communities (SDG 11). A particularly salient feature of the homestay economy is its potential for women's empowerment. Female household members often take leadership in hospitality services, cooking, guest relations and cultural performances which enhances household income along with shifts in intra-household dynamics, granting women greater autonomy and social recognition (Scheyvens, 2002; Pusiran & Xiao, 2013). Evidence further suggests that increased incomes from homestays are reinvested in children's education and improved healthcare access, highlighting the sector's transformative impact on household welfare (Mitchell & Ashley, 2010).

In Uttarakhand, proactive policy support has facilitated the scaling of homestay enterprises through initiatives like the Deendayal Upadhyaya Grah Awas Yojana, which provides financial assistance, entrepreneurial training and infrastructural support to aspiring homestay operators (Uttarakhand Tourism Development Board [UTDB], 2018). These institutional efforts reflect a growing policy consensus around the role of community-based tourism in achieving inclusive, environmentally sensitive development in mountain regions. The success and scalability of homestay ventures depend on a collection of interlinked enablers such as digital marketing, capacity building, access to tourist markets, infrastructure and seasonal pricing strategies (Bhati & Pearce, 2016). The need to improve digital literacy, especially in remote areas, remains a barrier to optimizing the sector's full economic potential.

Review of Literature

Cultural experiences in homestays are increasingly valued by tourists seeking authentic, immersive encounters with local traditions and practices. According to Telfer and Sharpley (2008), homestays provide an intimate environment where tourists can directly engage with the host community, facilitating genuine cultural exchange. These interactions often involve participation in local festivals, traditional arts and regional ceremonies that contributes to a deeper understanding of the host culture (Bramwell & Lane, 2000). Moreover, cultural tourism is considered a sustainable form of tourism as it promotes the preservation of local heritage while generating economic benefits for the community (Richards, 2011). Through these experiences, tourists enjoy unique cultural insights and also contribute to the local economy by purchasing locally produced goods and services (Li et al., 2017). As a result, homestays serve as vital spaces for cultural preservation and community empowerment (Seyfi, Hall, & Rasoolimanesh, 2019). The digital transformation of tourism marketing has profoundly affected homestay businesses, with online platforms such as Airbnb and Booking.com becoming essential tools for host visibility and revenue generation. Guttentag (2015) explores how these platforms enable homestay owners to reach a global audience, enhancing their marketability and bookings. Further, customer reviews and ratings play a critical role in building trust and credibility, which are essential for attracting new guests (Zervas et al., 2017). The influence of online promotion

is amplified by social media where homestay owners can interact directly with potential customers, creating personalized experiences and fostering brand loyalty (Schivinski et al., 2020). These digital tools allow homestay owners to cater to niche markets such as eco-tourism or adventure tourism by crafting specific marketing messages that resonate with targeted consumer segments. Pricing is a vital strategy for homestay operators to optimize their revenue, taking into account fluctuations in demand based on seasonal and regional factors. As noted by Melnyk and Barna (2022), dynamic pricing models allow hotels to adjust rates during peak and off-peak periods ensuring profitability throughout the year. Research indicates that homestay operators who effectively manage their pricing strategies during high-demand seasons can maximize income while competitive pricing during low seasons helps maintain steady bookings (Kimes, 2011). However, as Bandalouski et al. (2021) suggest, seasonal pricing must be carefully managed to avoid alienating customers as excessive price changes can lead to dissatisfaction. Clear communication about pricing changes, as emphasized by Tsiotsou and Ratten (2010) is essential for maintaining guest loyalty and positive reviews.

Local cuisine plays an essential role in enriching the homestay experience, offering tourists a direct connection to the region's culinary heritage. Hjalager (2002) argues that food is a powerful medium for cultural exchange with homestays providing guests with the opportunity to experience authentic local dishes prepared by their hosts. This gastronomic aspect of homestays has been linked to increased tourist satisfaction as visitors seek unique food experiences (Boniface & Cooper, 2009). Furthermore, offering local cuisine supports the local economy by promoting regional food producers and farmers, creating a sustainable loop of local economic growth (Messerli et al., 2019). By featuring local ingredients and traditional recipes homestays contribute to the preservation of culinary heritage while simultaneously providing economic benefits through increased spending on food-related services (Hall & Gossling, 2016). Sustainability has become a critical consideration for both tourists and operators in the hospitality sector and homestays are increasingly adopting eco-friendly practices to appeal to environmentally conscious consumers. Becken and Hay (2012) highlight the growing importance of sustainability in tourism, noting that many tourists prioritize eco-friendly accommodations particularly in rural or nature-based settings. Homestays that integrate sustainable practices such as reducing energy consumption, minimizing waste and local sourcing are seen as more attractive to tourists seeking to reduce their environmental footprint (Tiwari, 2025). Research by Gössling et al. (2012) demonstrates that these practices benefit the environment and also enhance guest satisfaction and loyalty, as consumers increasingly align their travel choices with their values. Sustainable practices also contribute to the economic stability of host communities by preserving natural resources and creating a niche market for eco-tourism (Graci & Dodds, 2010). Adventure tourism has emerged as a key attraction for homestay operators, particularly those located in regions with natural landscapes such as mountains, forests and coastal areas. Weaver and Lawton (2006) suggest that offering adventure activities like hiking, trekking and kayaking significantly enhance the appeal of homestays particularly for tourists seeking active and immersive experiences. This segment of tourism is increasingly popular among younger travellers who are willing to pay a premium for unique and adrenaline-fueled experiences (Ryan, 2003). Research by Hurma et al. (2019) indicates that homestays that offer adventure tourism activities attract a distinct clientele and generate additional revenue through bookings for tours, rentals and excursions. Furthermore, providing these activities increases guest satisfaction and loyalty, as visitors often have more memorable stays when engaged in outdoor adventures (Steynberg & Grundling, 2023).

Objectives of the Study

The primary objective of this study is to investigate the correlation between perceived homestay activities and income generation among homestay entrepreneurs. Specifically, the study aims to examine how various homestay practices such as cultural experiences, online promotion, seasonal pricing, local cuisine services, sustainable practices and adventure-based offerings are perceived to influence entrepreneurial income. It seeks to analyse the strength and direction of these relationships to determine which activities are most strongly associated with enhanced income outcomes.

Research Methodology

This study adopts a descriptive-correlational research design to examine the relationship between perceived homestay activities and the income generation of homestay entrepreneurs in Uttarakhand. The study was conducted across key tourism-centric regions of Uttarakhand, where homestay operations are prevalent. A multistage sampling technique was employed. In the first stage, prominent districts with a high density of registered homestays were purposively selected. In the second stage, a simple random sampling method was used to select 225 homestay entrepreneurs, ensuring diverse geographical and demographic representation. This sample size was deemed adequate based on statistical power requirements for correlation analysis (Cohen, 1988).

Primary data were collected using a structured questionnaire, which was validated through expert review and pre-testing. The instrument measured homestay entrepreneur's engagement in six key homestay activities such as cultural experience offerings, online promotion, seasonal pricing strategies, local cuisine services, sustainable practices and adventure-based activities. Respondents were also asked to report their annual income derived specifically from homestay operations. Responses were recorded using Likert-type scales and actual income ranges, subsequently transformed into continuous variables for statistical analysis. Secondary data were obtained from government tourism databases, homestay registration records and prior academic studies, which supported the contextualization of findings and identification of regional trends.

Prior to analysis, data were screened for completeness and normality. Pearson's product-moment correlation coefficient (r) was employed to examine the relationship between perceived homestay activities and income generation, as the data met parametric assumptions. All tests were conducted at a 5% level of significance ($p < 0.05$) using IBM SPSS Statistics (Version 26). Correlation values were interpreted according to established benchmarks (Cohen, 1988), where 0.1–0.3 indicates a low correlation, 0.3–0.5 moderate, and e"0.5 high.

The following alternative hypothesis (H) was tested:

Ha: There is a significant correlation between perceived Homestay activities and Income generation of homestay entrepreneurs.

Results and Discussion

This section presents the findings related to income opportunities created by different Homestay activities to of homestay entrepreneurs engaged in operating are discussed as following:

Table 1. Correlation Between Homestay Activities and Income Generation (n = 225)

Homestay Activities	Income Generation	p-value	Degree of Correlation
Cultural Experience	0.62*	< .001	High
Online Promotion	0.57*	< .001	Moderately High
Seasonal Pricing	0.71*	< .001	High
Local Cuisine Services	0.48*	< .001	Moderate
Sustainable Practices	0.41*	< .001	Moderate
Adventure Activities	0.53*	< .001	Moderately High

Source: Author's Computation

Note: All correlations are statistically significant at the 0.05 level (2-tailed); * = r (Pearson correlation coefficient)

The findings presented in Table 1 indicate a statistically significant and positive correlation between a range of homestay activities and income generation among homestay entrepreneurs in Uttarakhand. All examined activities demonstrate significance at the 0.05 level, with Pearson's correlation coefficients (r) ranging from 0.41 to 0.71.

Among these, seasonal pricing strategies show the strongest correlation with income ($r = 0.71$, $p < .001$), suggesting that dynamic and demand-responsive pricing models effectively optimize revenue streams in rural tourism markets (Ghimire, 2023). This highlights the capacity of market-sensitive interventions to improve income predictability and profitability. Cultural experience offerings also exhibit a high degree of correlation with income ($r = 0.62$, $p < .001$), confirming the long-established view that cultural commodification add experiential value and stimulate tourist spending (Scheyvens, 2002; Sharma & Dyer, 2009). Authenticity in local performances, crafts and festivals increases visitor satisfaction and return rates, leading to higher earnings. Online promotion reveals a moderately high correlation ($r = 0.57$, $p < .001$), aligning with recent literature that emphasizes the role of digital visibility in enhancing market access for rural tourism operators (Kapri & Sharma, 2024). Effective use of digital platforms especially third-party booking websites and social media amplifies the outreach and attracts niche travelers seeking immersive stays (Schivinski et al., 2020).

Likewise, adventure activities correlate moderately high with income ($r = 0.53$, $p < .001$). These activities cater to growing global interest in nature-based and active tourism, which is often linked to higher expenditure patterns among tourists seeking unique, adrenaline-based experiences (Buckley, 2010; Kuenzi & McNeely, 2008). Local cuisine services show a moderate correlation with income ($r = 0.48$, $p < .001$), reflecting the importance of gastronomic tourism in enriching the overall travel experience. Consumption of region-specific food serves as both a cultural learning avenue and a revenue source (Everett & Aitchison, 2008). Lastly, sustainable practices such as waste management, water conservation and use of eco-friendly infrastructure display a moderate

positive relationship ($r = 0.41$, $p < .001$) with income generation. While these practices may not yield immediate financial returns, they strengthen brand reputation and long-term business viability (Lane & Kastenholz, 2015; Kontogeorgopoulos et al., 2014).

Conclusion

The study reveals a statistically significant and positive relationship between various homestay activities and income generation among entrepreneurs in Uttarakhand. Seasonal pricing shows the strongest correlation, highlighting the effectiveness of demand-responsive pricing in maximizing revenues. Cultural experiences and online promotion also demonstrate strong links to income, emphasizing the value of authenticity and digital visibility in enhancing tourist engagement and financial returns. Adventure activities and local cuisine moderately influence income, reflecting global trends in experiential and culinary tourism. Though sustainable practices exhibit a relatively lower correlation, they contribute to long-term business credibility and resilience. The findings affirm that integrating cultural, promotional, strategic and sustainable practices substantially improve the economic viability of rural homestays. These insights offer actionable direction for tourism entrepreneurs and policy stakeholders aiming to strengthen income streams through targeted, experience-driven interventions. Policymakers and tourism bodies can support these efforts through targeted training and infrastructure development to create sustainable growth in rural tourism.

References

1. Bandalouski, A. M., Egorova, N. G., Kovalyov, M. Y., & Pesch, E. (2021). Dynamic pricing with demand disaggregation for hotel revenue management. Journal of Heuristics, 27(3), 377–402. https://doi.org/10.1007/s10732-021-09480-2
2. Becken, S., & Hay, J. (2012). Sustainable Tourism: A Path to Responsible Travel. Routledge. https://doi.org/10.47134/jerp.v1i3.443
3. Bhati, A., & Pearce, P. (2016). Tourist attractions in Bangkok and Singapore; linking demographics and satisfaction. Asia Pacific Journal of Tourism Research, 21(5), 488–509. https://doi.org/10.1016/j.tourman.2017.05.014
4. Bhatia, A. K. (2013). Tourism Development: Principles and Practices. Sterling Publishers.
5. Boniface, B., & Cooper, C. (2009). Worldwide Destinations: The Geography of Travel and Tourism. Routledge.
6. Briedenhann, J., & Wickens, E. (2004). Tourism routes as a tool for the economic development of rural areas—vibrant hope or impossible dream? Tourism Management, 25(1), 71–79. https://doi.org/10.1016/S0261-5177(03)00063-3
7. Buckley, R. (2010). Adventure Tourism Management. Routledge.
8. Everett, S., & Aitchison, C. (2008). The role of food tourism in sustaining regional identity: A case study of Cornwall, South West England. Journal of Sustainable Tourism, 16(2), 150–167. https://doi.org/10.2167/jost696.0
9. Font, X. (2015). Adventure Tourism and Its Role in Rural Community Development. Journal of Tourism and Cultural Heritage, 13(2), 144-158. https://doi.org/10.1016/j.jth.2015.03.004
10. Ghimire, A. (2023). Homestay service for tourist satisfaction in rural areas. ASEAN Journal on Hospitality and Tourism, 21(3), 316–332. https://doi.org/10.5614/ajht.2023.21.3.06
11. Goodwin, H., & Santilli, R. (2009). Community-based tourism: A success? ICRT Occasional Paper 11. International Centre for Responsible Tourism.

12. Gössling, S., Hall, C. M., & Weaver, D. (2012). Sustainable Tourism Futures: Perspectives on Systems, Restructuring and Innovations (1st ed.). Routledge. https://doi.org/10.4324/9780203884256

13. Graci, S., & Dodds, R. (2010). Sustainable Tourism in the Caribbean. Journal of Sustainable Tourism, 18(5), 561-577.

14. Guttentag, D. (2015). Airbnb: Disruptive Innovation and the Rise of the Share Economy. International Journal of Hospitality Management, 44, 9-25. https://doi.org/10.1080/13683500.2013.827159

15. Hall, C.M., & Gössling, S. (Eds.). (2016). Food Tourism and Regional Development: Networks, products and trajectories (1st ed.). Routledge. https://doi.org/10.4324/9781315691695

16. Hjalager, A.-M., & Richards, G. (Eds.). (2002). Tourism and Gastronomy (1st ed.). Routledge. https://doi.org/10.4324/9780203218617

17. Hurma, H., Turksoy, N., & Inan, C. (2016, October). The role of tourism activities in rural development. IBANESS Conference Series – Prilep, Republic of Macedonia.

18. Kapri, S. S., & Sharma, A. (2024). Digital marketing impact on rural homestay booking and role of destination image. Anatolia, 35(4), 764–776. https://doi.org/10.1080/13032917.2024.2319075

19. Kimes, S. E. (2011). The Role of Yield Management in the Hospitality Industry. Journal of Revenue and Pricing Management, 10(1), 1-9.

20. Kontogeorgopoulos, N., Churyen, A., & Duangsaeng, V. (2014). Success factors in community-based tourism in Thailand: The role of luck, external support, and local leadership. Tourism Planning & Development, 11(1), 106–124. https://doi.org/10.1080/21568316.2013.852991

21. Kuenzi, C., & McNeely, J. (2008). Nature-based tourism and conservation: New economic insights and case studies. IUCN Publications.

22. Kumar, V., & Thakur, N. (2014). Homestay tourism in Himachal Pradesh: A step towards sustainable rural development. International Journal of Management and Social Sciences Research, 3(2), 17–22.

23. Lane, B., & Kastenholz, E. (2015). Rural tourism: The evolution of practice and research approaches – towards a new generation concept? Journal of Sustainable Tourism, 23(8–9), 1133–1156. https://doi.org/10.1080/09669582.2015.1083997

24. Li, X., Cheng, M., & Li, H. (2017). The Role of Host-Tourist Interaction in Cultural Immersion: A Case Study of Homestays in Rural China. International Journal of Tourism Research, 19(6), 642-655.

25. Melnyk, I. & Barna, M. (2022). Pricing Strategies in the Revenue Management System of Hotel Enterprises. Economic and Regional Studies / Studia Ekonomiczne i Regionalne, 15(3), 384-397. https://doi.org/10.2478/ers-2022-0026

26. Messerli, P., Surridge, K., & Wilson, L. (2019). Sustainable Gastronomy and Food Systems in Rural Tourism. Journal of Rural Studies, 45, 19-28.

27. Mitchell, J., & Ashley, C. (2010). Tourism and poverty reduction: Pathways to prosperity. Earthscan.

28. Pusiran, A. K., & Xiao, H. (2013). Challenges and community development: A case study of homestay in Malaysia. Asian Social Science, 9(5), 1–17. https://doi.org/10.5539/ass.v9n5p1

29. Raisi, H., Esfandiar, K., Barratt-Pugh, L., Willson, G., & Baggio, R. (2024). Tourism management perspectives. Tourism Management, 53, 101282.

30. Richards, G. (2011). Cultural Tourism: A Pathway to Sustainable Development. Routledge.

31. Roy, H., & Roy, A. (2015). Homestay tourism and rural development in Darjeeling Hills: A case study of Bijanbari Gram Panchayat. Geo-Analyst, 5(2), 12–23.

32. Ryan, C. (2003). Adventure Tourism and Cultural Heritage: Exploring the Synergies. Journal of Heritage Tourism, 5(4), 241-255.

33. Scheyvens, R. (2002). Tourism for development: Empowering communities. Prentice Hall.

34. Scheyvens, R. (2002). Tourism for Development: Empowering Communities. Prentice Hall.

35. Schivinski, B., Langaro, D., Fernandes, T., & others. (2020). Social media brand engagement in the context of collaborative consumption: The case of AIRBNB. Journal of Brand Management, 27(6), 645–661. https://doi.org/10.1057/s41262-020-00207-5

36. Seyfi, S., Hall, C. M., & Rasoolimanesh, S. M. (2019). Exploring memorable cultural tourism experiences. Journal of Heritage Tourism. https://doi.org/10.1080/1743873X.2019.1639717

37. Sharma, B., & Dyer, P. (2009). Residents' involvement in tourism and their perceptions of tourism impacts. Benchmarking: An International Journal, 16(3), 351–370. https://doi.org/10.1108/14635770910961371

38. Singh, A., & Mishra, P. (2020). Homestays and rural development: Evidence from Uttarakhand. Indian Journal of Regional Science, 52(2), 123–132.

39. Steynberg, L., & Grundling, J. (2023). Sustainability of adventure tourism: The economic highway. WIT Transactions on Ecology and the Environment, 84, 1970.

40. Telfer, D. J., & Sharpley, R. (2008). Tourism and Development in the Developing World. Routledge. https://doi.org/10.4324/9780203935479

41. Tiwari, J. (2025). Sustainability of homestay tourism in poverty alleviation programs in Nepal. Asian Journal of Humanities and Social Sciences, 2(1). https://doi.org/10.3126/ajhss.v2i1.77163

42. Tsiotsou, R. H., & Ratten, V. (2010). Seasonal Tourism: Managing Demand and Supply.

43. UNWTO. (2017). Tourism and the Sustainable Development Goals – Journey to 2030. United Nations World Tourism Organization.

44. Uttarakhand Tourism Development Board. (2018). Deendayal Upadhyaya Griha Awas Yojana-Guidelines. Retrieved from https://uttarakhandtourism.gov.in

45. Weaver, D., & Lawton, L. (2006). Tourism Management: A Strategic Approach. John Wiley & Sons.

46. Zervas, G., Proserpio, D., & Byers, J. W. (2017). The Rise of the Sharing Economy: Estimating the Impact of Airbnb on the Hotel Industry. Journal of Marketing Research, 54(5), 687-705. https://doi.org/10.1509/jmr.15.0204

Role of Mudra Yojana In Economic Stability of Uttar Pradesh

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ABSTRACT

As per the economic theory, saving and investment are correlated, and this fundamental concept of macroeconomics highlights the relationship in determining a country's economic growth and performance. On this basis, income generation plays a crucial role in the growth of developing countries like India. India's modelling of employment opportunities and self- employment are very important for Income generation, and in the creation of such things, the role of microfinance in providing loans to start a new business of small business cannot be overlooked. It has been observed that most people still borrow loans from the unorganized sector even in the era of 21st century. It cannot be overlooked that the financial inclusion through the latest scheme would be an instrument to bring economic change. For such reason, to provide loans and refinance the businesses, Mudra Yojana was launched by the PM Modi in 2015, and since then, States's of Governments have been providing loans up to 10 lakhs to the non-corporate, non-formal Small/micro enterprises, and such loans are classified as MUDRA loans under PMMY. Thus, the financial initiative taken in the form of the MUDRA Scheme will facilitate the micro units and will be able to provide credit and funds to develop their small businesses. However, the early stages showed significant interest by the people, but it slowed over the years. The paper throws light on the performance of the scheme in India and also brings out the performance of the Mudra Yojana in the economic stability of Uttar Pradesh.

In this paper, the analysis of different categories of schemes has been done through trend forecasting and using some statistical tools as described in the research methodology. The MUDRA Yojana aims to provide financial support to entrepreneurs in three categories, namely, Shishu, Kishor, and Tarun. Based on the results and discussion, it can be said that people are encouraged to develop entrepreneurship by taking the initiative to start their work. The analysis further demonstrates that the performance of the MUDRA yojana is significant under Kishor and Tarun categories, whereas, Shishu category has fallen, because of which total disbursement has also dropped. The CGR is lower than the SAGR, reflecting that growth in the number of loans wasn't perfectly linear—early years had slower growth, while later years accelerated. However, an attempt has been made by us to study the inception of MUDRA Yojana and evaluate its impact on the economic stability of Uttar Pradesh.

Keywords: *Investment, Financial inclusion, Entrepreneurship, Income generation, self- employment.*

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INTRODUCTION

Since independence, India has faced two major problems of socio-economic development, unemployment and poverty. These problems cannot be separated from other problems such as illiteracy, the gap between financial Status, corruption/bribery, leakages, gender discrimination, lack of financial literacy, etc. Hence, there is a need for poverty alleviation and wage employment programs. Tackle these problems government of India is putting Special emphasis on entrepreneurship promotion. It has also been emphasized by different groups and committees to make these schemes more effective. In the past, the government of India has taken various steps to eradicate these socio-economic problems in India through various schemes, such as MGNREGA, Start-up India, Pradhan Mantri Jan Yojana, etc.

After identifying the need for self-employment in India government has launched the MUDRA or Micro Units Development and Refinance Agency Ltd. Scheme on 8th April, 2015 to provide financial and managerial assistance to entrepreneurs who will further employ a large number of People targeted towards mainstreaming young, educated, or Skilled workers. People of the weaker section of the economy are unaware of credit, insurance, loans, and other financial services and generally depend on local lenders who grant them money on high interest rates. A shortage of financial resources is the major problem faced by these people. To improve this weaker section MUDRA scheme, facilitate those who are not capable of starting their own business.

It has been seen in the PMMY scheme, adequate relaxation is provided to women as almost 50% of the Indian population of them are directly a indirectly benefited, and they contribute to the economic parameters of the nation. It has also been observed that most of the micro and small enterprises are run by women, however, their economic contribution has been ignored, and their services have been taken for granted. Now it's a time to recognize the role of women's fraternity in the growth of an economy and take necessary measures to value the rural, uneducated females in the growth process simultaneously, along with the urban, uneducated, and educated females as well. The Mudra Yojana also targets to suppress poverty by providing easy access to self-employment to poor households which resulting in an improvement in livelihood on a sustainable basis to achieve economic stability.

LITERATURE REVIEW

Venkatachalam and Simon [2015] conducted a study on microfinance and access to credit for rural and poor people as small entrepreneurs who are often cut off from the banking system because of limited branch presence, "Last Mile Financiers" of small/micro businesses.

Appreciating the MUDRA, authors asserted that bank has to take the initiative to reach out to new innovators, counsel them and wherever possible, connect them with their other clients, to help develop their market as MUDRA's main role is to create a relationship between creative people and successful clients which could be game-changing institutional innovation.

Verma [2015] in his study has appreciated the Government's move in this direction and submitted that the design of MUDRA Bank would not only cater to the financial problems of MSMEs but also give moral support to the vast pool of young population to materialize their dreams of becoming an entrepreneur.

Shahid and Irshad [2016] attempted to know about the genesis of MUDRA Yojana and its objectives. The authors used secondary data to analyse the product offerings and performance of the scheme in the state of Karnataka. The study concluded that MUDRA creates a vision of formalizing the informal and thereby funding the unfunded. The role of MUDRA as an apex refinancer has been appreciated and aims to fill a yawning gap in India's microfinance space. The authors also asserted that there is a bigger change in the area of micro-finance and the scheme will boost the first-generation entrepreneurs, the weaker section, the low-income group, and the unfunded population.

A study conducted by Rudrawar and Uttarwar (2016) has stressed that the asked metamorphosis would be achieved from the PMMY scheme. They asserted that if applied duly at the bottom of the aggregate, it may act as a game- changing idea and may increase, boost, and prosper the Indian frugality. Authors argued that in the future, MUDRA will be a catalyst for the development of employment, GDP, and entrepreneurship at large.

Agarwal and Dwivedi's (2017) study concentrated on understanding the impact of Pradhan Mantri Mudra Yojana (PMMY) on fiscal addition and assessed its current progress and performance in the state of Uttar Pradesh. They observed that PMMY has brought a bigger change in the area of microfinance. Appreciating the scheme, they also stated that it would promote competition to give credit support to the weaker section, the low-income group, and the unfunded population. They further asserted that this action of fiscal addition will increase the openings for credit conditions and refinance, and that the scheme is sure to take our nation forward towards a bright future and make India a more sustainable and advanced country. Godha and Nama (2017) in their composition have analysed the government action of MUDRA in terms of salient features of PMMY, MUDRA Bank. MUDRA product immolations, MUDRA places and liabilities, fiscal addition, PMMY, progress made under PMMY, and state-wise PMMY report. They concluded that there's a huge change in the area of microfinance as the scheme is anticipated to promote competition and give credit support to the weaker section, the low-income group, and the unfunded population. They further admit that the pace of fiscal inclusiveness as PMMY increases the opportunities for credit conditions and refinancing.

Gurudatt Raikar and Mallikarjun Naik [2021] in their paper titled "Brief Case Study of PMMY Scheme in Karnataka" opined that small industries and start-ups play a vital role in raising the standard of living of the people of India, particularly in rural India. The author has viewed that the performance of MSMEs has a greater impact on the social-economic development of the country in terms of production, employment generation, and also contributions to the GDP of the Country.

After reviewing and analysing the literature, it is clear that MUDRA Yojana plays a greater role in the Indian economy, but the study of its role and effective implementation in states like Uttar Pradesh is still lacking.

OBJECTIVES OF THE STUDY

1. To study the PMMY Scheme and its implementation.
2. To give recommendations for the effective implementation of PMMY Uttar Pradesh.
3. To explore the generation of employment opportunities through PMMY in Uttar Pradesh.
4. To study the Role of Mudra Yojana in the economic stability of Uttar Pradesh.

RESEARCH METHODOLOGY

As per the review's objectives, the examination was subjective, and it was conducted utilizing auxiliary information taken from yearly reports published on the Public Authority of India's site. The data is collected from secondary sources like newspapers, magazines, and various websites, including the MUDRA Yojana website. Annual Report of MUDRA stats-wise performances for presentation in tables & its analysis. For data analysis, various statistical tools such as mean, standard deviation, coefficient of variation (CV), simple annual growth rate (SAGR), and compound growth rates (CGR) have been taken into consideration and applied in appropriate places.

DATA ANALYSIS AND INTERPRETATION

The collected data has been analysed and interpreted using a graphic Presentation, through trend forecasting. The study brings out the Performance of MUDRA Yojana in the economic stability of Uttar Pradesh and also reveals the efforts of the Government to make it more effective. It also throws light on the salient features of the Scheme that have helped the young educated and skilled people to come up for entrepreneurial activities. The study will highlight

the Performance of the product, which may help financial institutions to devise programs and Products that are better tailored to meet their requirements, considering the socio-demographic, psychological, and economic factors. MUDRA loan is provided for various purposes such as income generation and employment creation in manufacturing, services, retail, and agriculture allied products.

The products would be covered under their categories, which are as follows: -

Components of Mudra Yojana		
SHISHU	**KISHOR**	**TARUN**
UP to 50,000	50,000-5,00,000	5,00,001-10,00,000

From the table (1), it can be seen that the number of loans sanctioned under the Pradhan Mantri Mudra Yojana (PMMY) increased from 34,880,924 in 2015-16 to 66,777,013 in 2023-24, showing a clear upward trend. However, there are fluctuations—e.g., a dip in 2020-21 (50,735,046) likely due to the COVID-19 pandemic, followed by a recovery. The sanctioned amount grew significantly from 137,449.27 Crore in 2015-16 to 541,012.86 Crore in 2023-24. Despite a slight dip in 2020-21 (321,759.25 Crore), the overall trend is strongly upward, indicating increased financial support under the PMMY scheme. The disbursed amount also rose from 132,954.73 Crore in 2015-16 to 532,358.35 Crore in 2023-24, mirroring the sanctioned amount. The disbursed amount consistently remains slightly lower than the sanctioned amount each year, which is expected due to procedural delays, borrower eligibility, or other factors.

Table 1 further reveals that about 53 million loans were sanctioned annually over the 9 years. This high average reflects the scale of the PMMY scheme in supporting micro-entrepreneurs. Whereas, an average of 321,032.63 Crore amount was sanctioned yearly, showing substantial financial allocation to the scheme, and the average disbursed amount is slightly lower at 313,574.37 Crore, indicating that around 97.7% of the sanctioned amount is typically disbursed annually.

Performance of the Mudra scheme in India

Table (1): Achievement under PMMY Since Inception in Uttar Pradesh

Financial Year	PMMY Loans Sanctioned		Amount Sanctioned		Amount Disbursed	
	Num. of Loans	Percentage increase (year on year)	Sanctioned (Rs. Crore)	Percentage increase (year on year)	Disbursed (Rs. Crore)	Percentage increase (year on year)
2015-16	34880924	—	137449.27	—	132954.73	—
2016-17	39701047	13.82	180528.54	31.27	175312.13	31.9
2017-18	48130593	21.23	253677.10	40.55	246437.40	40.55
2018-19	59870318	24.39	321722.79	26.85	311811.38	26.54
2019-20	62247606	03.96	337495.53	04.91	329715.03	05.74
2020-21	50735046	-18.5	321759.25	-04.65	311754.47	-05.46
2021-22	53795526	06.32	339110.35	05.40	331402.20	06.32
2022-23	62310598	15.84	456537.98	34.62	450423.66	35.91
2023-24	66777013	07.17	541012.86	18.51	532358.35	18.18
MEAN	**53160963.44**	—	**321032.63**	—	**313574.37**	—
S.D.	**10056265.40**	—	**118022.01**	—	**117229.83**	—
C.V.	**18.92%**	—	**36.76%**	—	**37.38%**	—
SAGR	**11.43%**	—	**36.70%**	—	**37.55%**	—
CGR	**8.45%**	—	**18.75%**	—	**18.95%**	—

Note: For the benefit of all interested parties, the Micro Unit Development Agency Posts yearly information on Mudra recipients and Mudra accounts on its official websites. Data are categorized according to the Performance.

The performance of the number of loans sanctioned, the amount sanctioned, and the amount disbursed has also been considered for discussion with their year-on-year percentage changes. The table reveals that the percentage increase in the number of loans peaked in 2018-19 (24.39%) but saw a sharp decline in 2019-20 (3.96%) and a negative growth in 2020-21 (- 18.5%), likely due to economic disruptions. In the post-2020, growth recovered, with a notable spike in 2022-23 (15.84%). The amount sanctioned saw its highest growth in 2017-18 (40.55%) and a strong rebound in 2022-23 (34.62%). In particular, the number of loans declined in 2020- 21 (-4.65%) but recovered post-2020, with consistent growth. On the other hand, the percentage

increase in amount disbursed closely mirrors the amount sanctioned, peaking in 2017-18 (40.55%) and 2022-23 (35.91%). It also saw a decline in 2020-21 (-5.46%) but rebounded strongly afterward. Thus, it can be concluded that the percentage increases highlight that PMMY in Uttar Pradesh experienced robust growth in loan sanctioning and disbursal, particularly in 2017-18 and 2022-23, with significant disruptions in 2020-21. It has also been observed that post-pandemic recovery has been strong, though growth rates have moderated in 2023-24 compared to the previous year.

So far as the simple annual growth (SGR) rate is concerned, the number of loans grew at an average rate of 11.43% per year. This steady growth suggests increasing outreach of the PMMY scheme over the years. The sanctioned amount grew much faster, at 36.70% per year, indicating a significant increase in the program's financial scale. The disbursed amount grew at 37.55% per year, slightly higher than the sanctioned amount, showing that disbursements kept pace with or slightly outpaced sanctions over time. The CGR is lower than the SAGR, reflecting that growth in the number of loans wasn't perfectly linear—early years had slower growth, while later years accelerated. The CGR is much lower than the SAGR, indicating that while the overall growth in sanctioned amounts was strong, it wasn't consistently exponential. The large jumps in later years (e.g., 2022-23 and 2023-24) heavily influence the overall growth. The CGR for disbursements is slightly higher than for sanctions, suggesting that the scheme became more efficient in disbursing funds over time.

Leading states in PM Mudra loan Disbursal

As of February 28, 2025, since the launch of Pradhan Mantri Mudra Yojana in 2015, Tamil Nadu has recorded the highest disbursal among states at Rs. 3,23,647.76 Crore. Uttar Pradesh follows the format 2nd Rs. 3,14,360.86 crore, while Karnataka ranks third with Rs. 3,02,146.41 Crore. West Bengal and Bihar have also seen significant disbursals of Rs. 2,82,322.94 Crore and Rs. 2,81,943.31 Crore respectively. Maharashtra stands sixth at Rs. 2,74,402.62 crore, reflecting the Scheme's broad reach and impact across key states over the past decade.

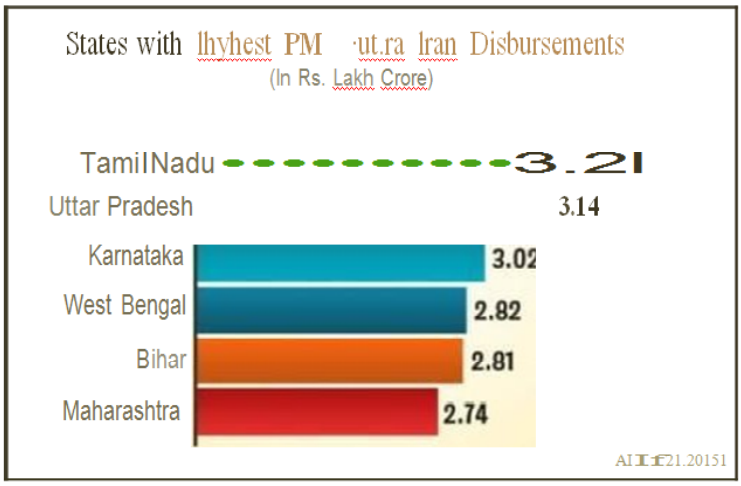
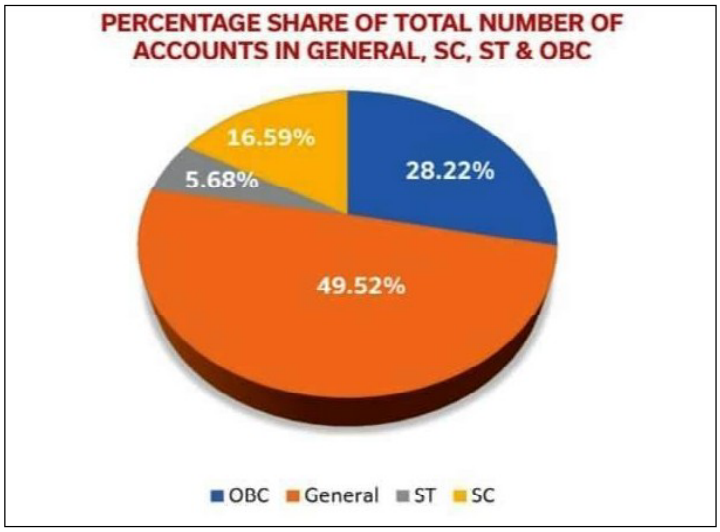


Table (2): Sub-categories of borrowers: Sanctions (FY 2022-23)

No.	Category	Shishu (Loans up to Rs. 50,000)		Kishor (Loans from Rs. 50,001 to Rs. 5.00 Lakh)		Tarun (Loans from Rs. 5.00 to Rs. 10.00 Lakh)		Total	
		No of A/Cs	Disbursement Amt.	No of A/Cs	Disbursement Amt.	No of A/Cs	Disbursement Amt.	No of A/Cs	Disbursement Amt.
1	General	19667831	64780.57	10084798	129512.71	1103971	92152.46	30856600 (49.52%)	286445.74 (63.59%)
2	SC	8034399	26058.45	2265513	18612.13	36002	2601.71	10335914 (16.59%)	47272.28 (10.50%)
3	ST	2770354	8689.36	740882	6741.82	25190	1862.71	3536426 (5.68%)	17293.9 (3.84%)
4	OBC	12605276	42081.47	4824719	46069.97	151672	11260.29	17581658 (28.22%)	99411.74 (22.07%)
5	**TOTAL**	**43077851**	**141609.85**	**17915912**	**200936.63**	**1316835**	**107877.18**	**62310598**	**450423.66**
6	Women Entrepreneurs	32817496	112228.35	11285672	91691.19	153645	11115.01	44256813 (71.03%)	215034.55 (47.74%)
7	New Entrepreneurs	7251841	25825.09	2359449	48268.23	153645	55329.44	10066770 (16.16%)	129422.76 (28.73%)
8	Minority	5290565	16601.08	2143694	22347.96	83312	6379.72	7517571 (12.06%)	45328.75 (10.06%)



Source: MUDRA YOJANA (Annual Report)

The table (2) provides data on loan sanctions in FY 2022-23 across various borrower categories under three schemes, namely, Shishu, Kishor, and Tarun. The data includes the number of accounts (A/Cs) and disbursement amounts (in Rs.) for each category, along with totals and percentages for specific groups like Women Entrepreneurs, New Entrepreneurs, and Minorities. Out of the total amount disbursed, 47.74% went to the women borrowers. 52.67% of the accounts in the Shishu category belonged to women who disbursed 24.92% of the amount in the Shishu category. The reason for a high share of women in the Shishu category is lending of microloans by the MFIs, primarily to women.

The share of the society's weaker section (SC/ST/OBCs) borrowers in the PMMY programme was 50.48% in terms of loan accounts and 36.41% in terms of loan amount disbursed. The shares of SC, ST, and OBC category borrowers were 10.50%, 3.84%, and 22.07%, respectively, in terms of the number of loans disbursed. SC, ST, and OBC together account for 50.49% of total accounts and 36.41% of disbursement, showing efforts toward inclusive lending. Women entrepreneurs have a strong presence, especially in Shishu, indicating microfinance support for women-led businesses. A notable focus on new businesses, particularly in higher loan brackets (Kishor and Tarun), suggests support for scaling startups. Table further reveals that the disparity between the number of accounts and disbursement amounts highlights that smaller loans (Shishu) are more numerous, while larger loans (Tarun) contribute significantly to total disbursement. The data reflects a structured approach to financial inclusion, with a focus on microfinance for women and marginalized groups, while also supporting new and growing businesses with larger loans.

FINDINGS

1. Mudra loans have steadily increased in the sanction of loans to micro enterprises in India.
2. A major portion of the loan category belongs to the Shishu Category
3. It can be seen that the number of loan Sanctions and the sanctioned amount have been increasing year on year in Uttar Pradesh.
4. It shows, banks are implementing the government Scheme in a very Positive way to achieve economic stability in Uttar Pradesh.
5. The Participation of the weaker Sections (SC/ST/OBCs) of the society in the PMMY Programme was at 55% in terms of loan accounts, and 34% in terms of loan amount sanctioned.
1. 6. The major portion of the share of SC, ST, and OBC categories belongs to the Shishu category.
7. On average, about 53 million loans were sanctioned annually over the 9 years. This high average reflects the scale of the PMMY scheme in supporting micro-entrepreneurs.
8. The sanctioned amount grew significantly from 2015-16 to 2023-24. Despite a slight dip in 2020-21, the overall trend is strongly upward, indicating increased financial support under the PMMY scheme.
9. The steady SGR of the number of loans suggests increasing outreach of the PMMY scheme over the years.
10. The CAGR is lower than the SAGR, reflecting that growth in the number of loans wasn't perfectly linear—early years had slower growth, while later years accelerated. The CAGR is

much lower than the SAGR, indicating that while the overall growth in sanctioned amounts was strong, it wasn't consistently exponential.

11. Women entrepreneurs have a strong presence, especially in Shishu, indicating microfinance support for women-led businesses. A notable focus on new businesses, particularly in higher loan brackets (Kishor and Tarun), suggests support for scaling startups.
12. The data reflects a structured approach to financial inclusion, with a focus on microfinance for women and marginalized groups, while also supporting new and growing businesses with larger loans.

RECOMMENDATIONS

1. The loans sanctioned are mostly in the Shishu category for wider development loans to Kishor and Tarun categories should be increased.
2. It is necessary to increase loans to open categories for economically backward class people.
3. MUDRA Scheme Services are provided to SC/ST and other backward classes, and a subsidy is also provided to them. This helps to remove the gap between the rich and poor, caste discrimination, etc. It raises the standard of living. Socio-economic Sustainable development through the MUDRA scheme helps to maintain the economic Stability of Uttar Pradesh.
4. In Uttar Pradesh, there is a need for more efforts to increase the size of loans, as Uttar Pradesh is an industrialized state in India.
5. Though the share of women is very high, it is only in the shishu Category, and the loan size is very small.
6. More initiatives should be taken by the government to create awareness of the scheme and to build confidence in the minds of the targeted people, the weaker section of society, to take up entrepreneurship.

CONCLUSION

It is established fact that MUDRA Yojana is one of the very effective financial tools across the country. Based on the overall discussion, it can be concluded that the MUDRA Scheme substantially contributes to socio-economic sustainable development. Under this Scheme, various services are provided to the users, resulting in facilitating economic development. This helps India in socio-economic sustainable development, and consequently, it helps to remove the vulnerabilities. In the future, it will continue to make significant changes. In India, every year, multiple schemes are introduced, but very few schemes are successfully implemented. Implementation of the schemes depends and multiple factors, which need to be analysed at various stages.

REFERENCES

1. S. Venkatachalam and L.M. Simon (2015), "Mudra Bank to 'Fund the unfunded' Small Entrepreneurs - A Conceptual Framework", International Journal of Multidisciplinary Research and Development, Vol.2, No.9, pp. 449-450.

2. Verma S. Chandra (2015), Mudra Bank to Fund Small Businesses", Research Spectra, Vol. 1, Issue 2-3.
3. Ramesh. (2016). "Performance evaluation of Mudra bank Schemes - A Study", Anveshana's International Journal of Research in Regional Studies Law, Social Science, Journalism and management Practices, 1(7), 116-120.
4. Rudrawar, M.A.A., & Uttarwar, V.R., (2016), "An Evaluatory Study of MUDRA Scheme", International Journal of Multifaceted & Multilingual Studies, Vol.3, No.6, pp. 1-8.
5. M. Shahid and M. Irshad (2016), "A Descriptive Study on Pradhan Mantri Mudra Yojana (PMMY)", International Journal of Latest Trends in Engineering and Technology, Vol.3, No.5, pp. 121-125.
6. M. Agarwal and R. Dwivedi (2017), "Pradhan Mantri Mudra Yojana: A Critical Review", Parikalpana: KIIT Journal of Management, Vol.13, No.2, pp. 97-106.
7. A. Godha and D. Nama (2017), "Pradhan Mantri Mudra Yojana: A New Financial Inclusion Initiative", Management and Applied Sciences, Vol.5, No.3, pp. 200-204.
8. Gurudatta Raikar & Mallikarjun Naik (2021). "Performance Analysis of Pradhan Mantri Mudra Scheme", IJRESM, 9(12), pp. 2063-2067.
9. MUDRA (2023). Annual Reports 2022-23. MUDRA.ORG
10. R. Rupa (2017), Progress of MUDRA with the special reference of Tamil Nadu.
11. Kumar, Puneet (2022), "A Comparative analysis of Pradha Mantri Mudra Yojana (with special reference to the state of Uttar Pradesh)", Kanpur Philosophers, Vol IX, Issue III (I), March 2022.
12. Talekar. SD, Bharat Nayabrao (2017), "A Study of Performance evaluation of Mudra Bank in India", International Journal of Management and Commerce Research Volume 1; Issue 1; November 2017. (www.management-journal.in).
13. http://www.mudra.org.in/Offerings
14. http://www.mudra.org.in/PMMYReport
15. https://timesofindia.indiatimes.com
16. http://www.mudra.org.in/AboutUs/Genesis
17. SKOCH Group. (n.d.). SKOCH Report Card of MUDRA. Retrieved from inclusion.skoch.in: h ttp://inclusion.skoch.in/story/876/skoch-report-card-of-mudra-1176.html
18. https://timesofindia.indiatimes.com/Business/India-Business/Banks-to-disburse-Rs-1-80-lakh crore-Mudra-loans-in-FY-2017/articleshow/52871727.cms
19. http://t7news.in/year-end-review-2017-ministry-of-rural-development/
20. https://www.indiainfoline.com/article/news-sector-banking-financials/mudra-bank-forays- into-digital-space-with-i-exceed%E2%80%99s-appzillon-mudra-bank-116070700166_1.html

Fiscal Consolidation in India: Strategies, Challenges, and Economic Implications

Dr. Poonam Tomar[1]

ABSTRACT

Fiscal consolidation is a critical component of economic policy, aimed at reducing fiscal deficits and stabilizing public debt while maintaining economic growth. In India, fiscal consolidation has been pursued through expenditure rationalization, revenue augmentation, and structural reforms. This paper examines the strategies employed, the challenges faced, and the economic implications of fiscal consolidation in India. While efforts have improved macroeconomic stability, concerns persist regarding growth constraints, social sector spending, and federal fiscal dynamics. The study underscores the need for a balanced approach to fiscal consolidation, ensuring long-term sustainability without undermining growth prospects.

Keywords: *Fiscal consolidation, fiscal deficit, public debt, economic growth, fiscal policy.*

Introduction

Fiscal consolidation refers to policies aimed at reducing government deficits and debt accumulation to ensure long-term macroeconomic stability. In India, fiscal imbalances have historically been a challenge due to high public spending, subsidies, and revenue constraints. The government has implemented various strategies over the years, including adherence to the Fiscal Responsibility and Budget Management (FRBM) Act, rationalization of subsidies, and tax reforms. However, fiscal consolidation remains a complex process due to structural constraints, economic shocks, and competing policy priorities.

This paper explores the fiscal consolidation strategies in India, the challenges faced in implementation, and the broader economic implications of these policies.

Review of Literature

Fiscal consolidation has been a critical component of India's macroeconomic strategy, especially in the post-reform period. The literature on this topic covers various dimensions, including its impact on economic growth, debt sustainability, fiscal discipline, and public expenditure efficiency.

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Theoretical Perspectives

Fiscal consolidation is generally understood as the policy effort to reduce government deficits and public debt accumulation. The **IMF (2010)** distinguishes between expenditure-based and revenue-based consolidations, arguing that expenditure-led consolidations are more sustainable and less contractionary in the long term.

Empirical Studies in the Indian Context

- **Rangarajan and Srivastava (2005)** analyzed India's fiscal performance post-1991 reforms and noted that high fiscal deficits crowd out private investment and contribute to macroeconomic instability. They stressed the importance of institutional mechanisms like the **Fiscal Responsibility and Budget Management (FRBM) Act, 2003** in instilling fiscal discipline.
- **Jha and Sharma (2004)** examined the relationship between fiscal consolidation and economic growth, concluding that while consolidation may have short-run costs, it contributes to long-run sustainability.
- **Buiter and Patel (2010)** highlighted India's rising public debt and emphasized that without sustained fiscal consolidation, India risks high inflation and external vulnerabilities.

Government Reports and FRBM Review

- The **FRBM Review Committee Report (N.K. Singh Committee, 2017)** recommended adopting a debt-to-GDP anchor (40% for the Centre) and a fiscal deficit glide path (3% target), noting that rules-based frameworks must be flexible enough to account for macroeconomic shocks.
- **Union Budgets (2020–2025)** and **Medium-Term Fiscal Policy Statements** show a clear shift in fiscal policy: from pandemic-driven expansion to gradual consolidation. The target of bringing the fiscal deficit down to **4.5% of GDP by FY2025-26** reflects this commitment.

Multilateral Assessments

- According to the **IMF Country Reports (2022, 2023)**, India's fiscal consolidation is necessary but should be calibrated to protect growth-enhancing spending, especially in infrastructure and human capital.
- The **World Bank (2022)** emphasized that premature or excessive consolidation could undermine recovery, particularly after COVID-19.

Recent Scholarly Insights

- **Bhanumurthy et al. (2022)** found that states in India practicing tighter fiscal management tend to experience higher investment and growth over time.
- **Roy and Lahiri (2021)** explored the cyclical nature of India's fiscal policy and pointed out the need for counter-cyclical policy to smooth economic fluctuations.

Fiscal Consolidation Strategies in India:

Fiscal consolidation in India refers to the policies and strategies implemented by the government to reduce fiscal deficits and public debt in a sustainable way, while maintaining growth and social spending. The goal is to improve the overall fiscal health of the economy and ensure long-term macroeconomic stability.

Strategy	Description	Key Instruments/Initiatives	Expected Outcome
Expenditure Rationalization	Reducing unproductive or non-essential expenditures and improving efficiency	- Outcome budgeting - Rationalization of subsidies	Lower revenue deficit and better expenditure quality
Revenue Mobilization	Enhancing tax and non-tax revenues to improve the fiscal position	- GST implementation - Digital tax monitoring - Disinvestment	Increased tax-to-GDP ratio and reduced fiscal deficit
Focus on Capital Expenditure	Prioritizing investment in infrastructure to boost growth rather than current spending	- PM Gati Shakti - Infrastructure pipeline investment	Boost long-term growth, crowd in private investment
Fiscal Responsibility Legislation	Creating rules-based frameworks to ensure discipline in fiscal management	- FRBM Act (2003) - Medium-Term Fiscal Policy Statements	Institutionalize fiscal discipline and transparency
Subsidy Reform	Targeting and reducing subsidies to minimize fiscal burden	- Direct Benefit Transfer (DBT) - Fertilizer & LPG subsidy reforms	Lower expenditure leakages and more efficient welfare delivery
Disinvestment and Asset Monetization	Selling public sector assets to raise non-tax revenue and improve public sector efficiency	- National Monetisation Pipeline (NMP) - Strategic disinvestment	Boost non-tax revenue and reduce fiscal gap
Tax Reform and Administration	Improving tax base, compliance, and ease of payment	- Introduction of e-invoicing - Faceless assessment in Income Tax	Broader tax base, improved compliance and ease of doing business
State Fiscal Responsibility	Encouraging state governments to maintain fiscal discipline	- Conditional borrowing linked to reforms - State FRBM Acts	Coordinated national-level fiscal consolidation

1. Expenditure Rationalization

One of the key strategies for fiscal consolidation has been controlling government expenditures. Major measures include:

- **Reduction of subsidies**: The government has progressively reduced subsidies on food, fuel, and fertilizers through targeted direct benefit transfers (DBT).
- **Rationalization of welfare schemes**: Focus has been on efficient allocation of resources and minimizing leakages in welfare programs.
- **Capping revenue expenditures**: Efforts to limit unproductive expenditures while prioritizing capital expenditures have been undertaken to enhance long-term growth.

2. Revenue Mobilization

Increasing revenue is a crucial pillar of fiscal consolidation. Key initiatives include:

- **Implementation of the Goods and Services Tax (GST)**: A unified tax system aimed at improving compliance and boosting revenues.

- **Direct tax reforms**: Reduction in corporate tax rates and simplification of personal income tax structures to enhance compliance.
- **Disinvestment and privatization**: The sale of government stakes in public sector enterprises to generate revenue and improve efficiency.

3. Fiscal Responsibility and Budget Management (FRBM) Act

The FRBM Act, enacted in 2003, set targets for fiscal deficit reduction. Over time, amendments have been made to accommodate economic needs while maintaining fiscal discipline. Key aspects include:

- **Setting deficit targets**: Reducing the fiscal deficit to sustainable levels.
- **Debt management**: Ensuring public debt remains within manageable limits.
- **Flexibility during economic downturns**: Allowing for temporary deviations from targets in exceptional circumstances.

Challenges in Fiscal Consolidation

Challenge	Description	Examples/Recent Context	Implications for Fiscal Policy
High Revenue Deficit	A significant portion of borrowing is used to fund current expenditure instead of capital	Revenue deficit at 2.9% of GDP in FY 2023–24 (RE)	Limits capacity for productive investment and long-term growth
Limited Tax Base & Evasion	Low direct tax-to-GDP ratio; informal sector and evasion reduce tax buoyancy	Personal income tax compliance remains low; challenges in taxing digital economy	Reduces sustainable revenue generation and increases fiscal strain
Substantial Subsidy Burden	Large subsidies on food, fertilizer, and fuel strain fiscal resources	Fertilizer and food subsidies exceeded ₹4 lakh crore in recent years	Difficult to reduce without affecting vulnerable groups
State-Level Fiscal Pressures	Many Indian states have high debt and deficits, affecting general government fiscal health	Several states have fiscal deficits >3% of GSDP	Weakens overall fiscal consolidation, risks coordinated response
Populist Spending Commitments	Election-linked or populist schemes often override fiscal prudence	Free electricity/water schemes; old pension scheme revival in some states	Increases non-productive expenditure and fiscal risks
Debt Sustainability Concerns	High debt-to-GDP ratio post-COVID remains above 80%	Central govt debt at ~57% of GDP; combined debt nearing 82% of GDP	Interest burden limits fiscal flexibility
Global and External Shocks	Oil price volatility, geopolitical tensions, global interest rate hikes	Russia-Ukraine war, US Fed rate hikes impacted India's fiscal space	Raises import bill and borrowing costs
Slow Disinvestment & Asset Monetization	Underachievement of targets for strategic disinvestment and monetization	LIC IPO delay, Air India privatization took years	Reduces non-tax revenue and reliance on borrowing
Structural Deficits & Rigid Spending	Committed spending on salaries, pensions, and interest payments leaves little flexibility	Nearly 50% of expenditure is non-discretionary	Limits ability to cut spending during fiscal stress
Implementation Challenges	Delays in fiscal reform rollout or leakage in welfare delivery mechanisms	Challenges in GST refunds, DBT inclusion gaps	Reduces effectiveness of consolidation efforts

1. Growth vs. Austerity Dilemma

Fiscal consolidation often necessitates expenditure cuts, which can negatively impact economic growth. The challenge lies in balancing fiscal prudence with the need for public investment.

2. Revenue Collection Constraints

Despite GST reforms, issues like tax evasion, compliance challenges, and revenue leakages hinder effective revenue mobilization.

3. Rising Debt and Interest Burden

High fiscal deficits have led to a rising public debt burden, increasing interest payments and limiting fiscal space for developmental expenditures.

4. Federal Fiscal Imbalances

India's fiscal consolidation efforts require coordination between the central and state governments. State-level fiscal deficits and off-budget borrowings pose risks to overall fiscal health.

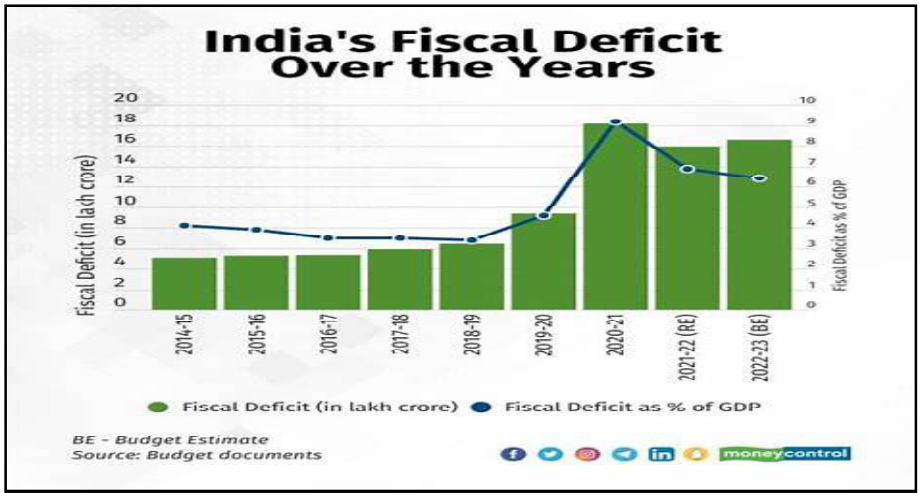
5. Impact of External Shocks

Global economic slowdowns, inflationary pressures, and crises like the COVID-19 pandemic have disrupted fiscal planning and necessitated stimulus measures, complicating consolidation efforts.

Economic Implications of Fiscal Consolidation

Impact of fiscal policy reforms aimed at reducing fiscal deficits and improving public finance health. India has undertaken significant fiscal consolidation measures in recent years, especially following the COVID-19 pandemic. The fiscal deficit, which peaked at 9.2% of GDP in FY2020-21, has been steadily reduced to a targeted 4.4% in FY2025-26.

Fiscal Indicator	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24 (RE)	Economic Implication
Gross Fiscal Deficit (% of GDP)	4.6%	9.2%	6.7%	6.4%	5.8%	Higher deficit during COVID; consolidation ongoing
Revenue Deficit (% of GDP)	3.3%	7.3%	4.7%	3.9%	2.9%	Reduced revenue deficit reflects better fiscal health
Primary Deficit (% of GDP)	1.6%	5.8%	3.3%	3.0%	2.3%	Declining primary deficit suggests fiscal tightening
Total Expenditure (% of GDP)	13.2%	17.7%	16.0%	15.3%	14.9%	Spending scaled back post-COVID
Revenue Expenditure (% of GDP)	11.7%	15.9%	14.0%	13.2%	12.6%	Lower subsidies, targeted welfare improve efficiency
Capital Expenditure (% of GDP)	1.5%	1.8%	2.0%	2.3%	2.9%	More investment-led spending supports long-term growth
Gross Tax Revenue (% of GDP)	10.0%	9.9%	10.8%	11.2%	11.7%	Improved tax collection strengthens fiscal base
Debt-to-GDP Ratio	70.2%	89.6%	87.4%	84.4%	82.0% (Est.)	Gradual reduction suggests long-term debt sustainability



1. Macroeconomic Stability

Successful fiscal consolidation contributes to lower inflation, reduced interest rates, and a stable macroeconomic environment, enhancing investor confidence.

2. Impact on Economic Growth

While fiscal discipline ensures long-term sustainability, short-term expenditure cuts may slow down economic growth, especially in sectors dependent on public spending.

3. Social Sector Spending

Expenditure rationalization may lead to reduced allocations for education, healthcare, and social welfare, affecting long-term human capital development.

4. Investment Climate

A credible fiscal consolidation framework enhances investor confidence and credit ratings, attracting both domestic and foreign investment.

5. Employment and Income Distribution

Austerity measures may affect employment levels in government-driven sectors, impacting income distribution and social welfare.

Policy Recommendations

Achieving sustainable fiscal consolidation in India necessitates a balanced approach that ensures macroeconomic stability while promoting inclusive growth. The following recommendations are grounded in recent fiscal data and expert analyses:

1. Expenditure Rationalization and Efficiency

- **Targeted Subsidy Reforms**: Implement comprehensive Direct Benefit Transfers (DBT) for subsidies in food, fertilizer, and fuel sectors to minimize leakages and ensure that benefits reach the intended recipients efficiently.
- **Outcome-Based Budgeting**: Transition from input-based to outcome-based budgeting frameworks. This shift will enhance the effectiveness of public spending by linking allocations to measurable results and holding ministries accountable for performance.
- **Curbing Revenue Expenditure Growth**: Implement measures to control the unsustainable rise in revenue expenditures, particularly in areas like salaries, pensions, and interest payments. Reallocating resources towards productive capital expenditure can stimulate economic growth.

2. Revenue Augmentation Strategies

- **Widening the Tax Base**: Enhance Goods and Services Tax (GST) compliance by addressing loopholes through advanced analytics and technology-driven tracking systems. Efforts should also focus on integrating more participants from the informal sector into the tax net.
- **Personal Income Tax Reform**: Introduce a more progressive tax structure while simplifying compliance mechanisms. This approach can enhance voluntary compliance, reduce litigation, and increase revenue.
- **Disinvestment and Asset Monetization**: Accelerate the strategic disinvestment process and promote the National Monetization Pipeline (NMP) to generate non-tax revenues, thereby reducing the fiscal deficit without compromising essential expenditures.

3. Fiscal Responsibility Legislation Reform

- **Revise FRBM Targets**: Redesign the Fiscal Responsibility and Budget Management (FRBM) Act to incorporate counter-cyclical fiscal policies. Introducing escape clauses based on economic indicators can provide flexibility during economic downturns.
- **Medium-Term Fiscal Framework (MTFF)**: Institutionalize a binding MTFF to provide credible fiscal roadmaps. This framework will ensure predictability, enhance investor confidence, and facilitate long-term planning.

4. Enhancing Centre-State Fiscal Coordination

- **Revamp Transfers and Grants**: Review and rationalize centrally sponsored schemes (CSS) to reduce duplication and inefficiency. Providing greater flexibility to states in fund utilization can lead to more effective and tailored development outcomes.
- **Strengthen GST Council Functioning**: Ensure timely compensation to states and foster a cooperative federal approach in decisions regarding tax rates and compliance mechanisms. This collaboration is vital for a unified and efficient tax system.

5. Social Sector and Capital Spending Balance

- **Protect Growth-Inducing Expenditure**: Fiscal consolidation efforts should avoid sharp cuts to infrastructure, health, and education spending. Investments in these areas yield long-term growth dividends and are essential for sustainable development.
- **Inclusive Consolidation**: Prioritize policies that protect vulnerable populations through robust social safety nets. Ensuring that fiscal adjustments do not disproportionately affect the marginalized is crucial for social cohesion.

Conclusion

A credible and well-designed fiscal consolidation strategy is essential to restore macroeconomic stability, ensure intergenerational equity, and create room for developmental spending. The Government of India, while pursuing deficit reduction, must ensure that consolidation does not come at the cost of growth, equity, or social cohesion. Policymaking should remain transparent, evidence-based, and responsive to both domestic and global economic dynamics.

References

1. Ministry of Finance, Government of India – Economic Survey Reports.
2. Reserve Bank of India – Annual Reports and Fiscal Data.
3. Kelkar, V. (2012). Report on Roadmap for Fiscal Consolidation.
4. International Monetary Fund (IMF) Reports on India's Fiscal Performance.
5. Budget Documents, Government of India (Various Years).

Comparative Assessment of Agricultural Credit and Farm Productivity in India: A Regional Analysis of Northern and Southern States

Dr. Ranjit Singh[1] & Meenakshi Mritunjay[2]

ABSTRACT

Agricultural finance is essential for increasing farm output since it makes it possible to invest in new equipment, irrigation, and high-quality inputs. However, there are notable regional differences in institutional credit's efficacy and accessibility, which have an unequal influence on India's agricultural growth. In order to investigate the effect of agricultural financing on farm production, this study compares the Northern and Southern areas. The study evaluates the impact of institutional credit using panel econometric methodologies, including Pooled OLS and Fixed Effects models, using data from 2003 to 2020. Important control variables include irrigation, land usage, and fertilizer use per hectare.

The findings show that there are notable differences between the two areas rates of loan absorption and how this affects agricultural output. Northern states experience issues with groundwater depletion from excessive irrigation, even while they gain from increased credit use and automation. Southern states, on the other hand, have a more varied agricultural structure but face obstacles in implementing policies and obtaining loans. Additionally, various locations have distinct patterns of fertilizer usage, which have varying effects on soil health and long-term production. In order to optimize agricultural growth, the study highlights the critical importance of region-specific financing policies, sustainable irrigation management, and balanced input utilization. To guarantee fair credit distribution and increased agricultural output throughout India, it is imperative to fortify rural banking networks, raise financial literacy, and broaden market accessibility. A targeted and data-driven approach to credit allocation will be instrumental in bridging regional disparities and fostering sustainable agricultural development.

Keywords: *Agricultural credit, farm productivity, regional disparities, institutional credit, sustainable agriculture.*

INTRODUCTION

Agriculture continues to play a vital component in India's economic development, contributing approximately 18.6% to the country's Gross Value Added (GVA) in 2022–23 and employing nearly

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45.5% of the total workforce (Ministry of Finance, Economic Survey 2022–23). Despite the sector's significance, Indian agriculture faces persistent challenges, including stagnating productivity, fragmented landholdings, and inadequate access to formal credit. Among these, access to institutional credit has emerged as a crucial determinant of agricultural performance, influencing investment in inputs, mechanization, and modern farming techniques.

The importance of timely and adequate agricultural credit has been repeatedly emphasized in policy discourse. According to data from the Reserve Bank of India (RBI, 2023), agricultural credit disbursement by scheduled commercial banks stood at ₹ 15.8 lakh crore in 2021–22, marking a steady increase from ₹ 4.75 lakh crore in 2011–12. But this expansion hasn't been uniformly distributed across regions. Northern states like Punjab, Uttar Pradesh, and Himachal Pradesh display different credit utilization patterns and productivity trends compared to their southern counterparts such as Andhra Pradesh, Tamil Nadu, and Karnataka. This inter-regional disparity raises questions about the efficacy of credit allocation mechanisms and their alignment with regional agro-economic needs.

Farm productivity, typically measured in terms of yield per hectare, also shows stark regional contrasts. For instance, as per the Directorate of Economics and Statistics (DES, 2022), Tamil Nadu and Punjab reported average food grain yields of 3,974 kg/ha and 4,529 kg/ha respectively in 2021–22, compared to the national average of 2,907 kg/ha. While northern states often benefit from better irrigation and support prices, southern states have made significant strides in leveraging credit for diversified cropping and input intensification. These productivity differentials underscore the need to analyze how agricultural credit influences farm outcomes within distinct regional contexts.

The Government of India has launched several initiatives—such as the Kisan Credit Card (KCC) scheme, Interest Subvention Scheme (ISS), and priority sector lending targets—to strengthen the flow of institutional credit to agriculture. Nevertheless, structural issues like regional banking penetration, differences in cropping intensity, and credit absorption capacity remain critical. A state-wise Comparison offers substantial details about how these systemic variables shape agricultural outcomes.

In light of these observations, this paper undertakes a comparative analysis of agricultural credit and farm productivity between selected northern (Himachal Pradesh, Uttar Pradesh, Punjab, Uttarakhand, and Bihar) and southern states (Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, and Odisha) of India. By examining trends over time and evaluating credit-productivity linkages, the study seeks to identify whether institutional credit effectively translates into higher agricultural output across these distinct regional blocs. This inquiry is essential for informed policymaking, particularly in optimizing regional credit flows and bridging productivity gaps to ensure inclusive agricultural growth.

LITREATURE REVIEW

The relationship between institutional credit and harvesting has been considerable established in agrarian economics. Binswanger and Khandker (1992), in a seminal World Bank study, showed that access to formal credit significantly boosts investment in inputs like fertilizers, irrigation, and improved seeds, leading to higher productivity, especially in resource-poor rural settings. Their findings underscore the foundational role of credit in enhancing agricultural performance.

Narayanan (2015), in a working paper from the Indira Gandhi Institute of Development Research, examined the evolving role of credit post-liberalization. The study found that although funding for

agriculture has increased in volume, its impact on productivity has been uneven. A significant share of credit was often diverted toward non-farm uses, raising concerns about credit targeting and monitoring in India's agricultural finance system.

Regional disparities in credit distribution are also well documented. Yadav (2019) highlighted how southern states such as Tamil Nadu and Andhra Pradesh benefit from stronger financial infrastructure and more efficient credit delivery systems, in contrast to northern states like Bihar and Uttar Pradesh, where poor institutional outreach limits credit effectiveness. This north-south divide is critical in understanding varied agricultural outcomes across regions.

Further, studies on targeted credit schemes such as the Kisan Credit Card (KCC) indicate mixed outcomes. Chhoidub and Pathania (2017) found that while the KCC scheme improved access to credit in Himachal Pradesh, small and marginal farmers still faced challenges due to lack of awareness and bureaucratic hurdles. Similarly, Meena and Jhamtani (2000) found that institutional credit significantly aided farm mechanization, particularly in better-connected regions.

Overall, the literature suggests that while institutional credit is essential for agricultural growth, its impact is influenced by regional infrastructure, governance, and farmers' capacity to absorb and use funds effectively. This study builds on these insights by comparing northern and southern Indian states to assess how these regional differences shape the credit-productivity relationship.

METHDOLOGY

This study investigates the regional dynamics the relationship between financial assistance for agriculture and farming output in India, focusing on a comparative analysis between the Northern and Southern states. It evaluates how institutional credit, along with key inputs such as irrigated area, net sown area, and fertilizer consumption, contributes to agricultural output measured through Gross State Value Added in Agriculture (GSVA_Agri). The analysis considers regional differences in cropping patterns, agrarian structures, and institutional frameworks.

Objectives of the Study

1. To analyse the impact of institutional agricultural credit on agricultural productivity in Northern and Southern states of India.
2. To evaluate the role of key agricultural inputs—irrigated area, net sown area, and fertilizer consumption—in influencing farm productivity.
3. To compare regional differences in credit responsiveness and input effectiveness across selected Northern and Southern states.
4. To draw policy implications for strengthening region-specific agricultural credit and support mechanisms.

Hypotheses

- **H1**: Institutional agricultural credit has a significant positive impact on agricultural productivity (GSVA_Agri) in both Northern and Southern regions.

- **H2**: Irrigated area positively influences GSVA_Agri, though the magnitude may vary regionally.
- **H3**: Expansion in net sown area contributes positively to GSVA_Agri; however, diminishing returns may lead to regional differences.
- **H4**: Fertilizer consumption is positively associated with GSVA_Agri, contingent on the extent and efficiency of its use.

The study uses balanced panel data from 2004–05 to 2021–22 for ten states—five from each region. The Northern states include Himachal Pradesh, Uttar Pradesh, Punjab, Uttarakhand, and Bihar, while the Southern states include Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, and Odisha. Data are sourced from the Reserve Bank of India (RBI), Ministry of Agriculture & Farmers' Welfare, and State Statistical Abstracts.

To estimate the relationship between credit and agricultural productivity, a panel data regression model is used with both Fixed Effects (FE) and Random Effects (RE) specifications. This helps control for state-specific unobservable factors over time. The model is specified as:

$$GSVAit=\beta0+\beta1\cdot Creditit+\beta2\cdot IrrigatedAreait+\beta3\cdot NetSownAreait+\beta4\cdot FertiliserConsit+uit$$

Where:

- GSVA it-Agricultural output for state i at time t
- Credit it- Institutional agricultural credit
- IrrigatedAreait-Gross irrigated area
- NetSownAreait-Net sown area
- FertiliserConsit- Fertilizer consumption
- Uit- Error term

Model selection was based on the Breusch-Pagan LM Test and the Hausman Test. The LM Test supported the use of panel models over pooled OLS. For the Northern region, the Hausman Test favoured the Random Effects model, while for the Southern region, the Fixed Effects model was more appropriate.

Separate models were estimated for each region to reflect their distinct agricultural contexts. The Northern states are characterized by high-input cereal farming and mechanization, while the Southern states show greater crop diversity and adoption of integrated and sustainable farming systems. This regional approach allows for more accurate analysis of how credit and inputs affect productivity in varying agro-ecological and institutional environments.

RESULT AND ANALYSIS

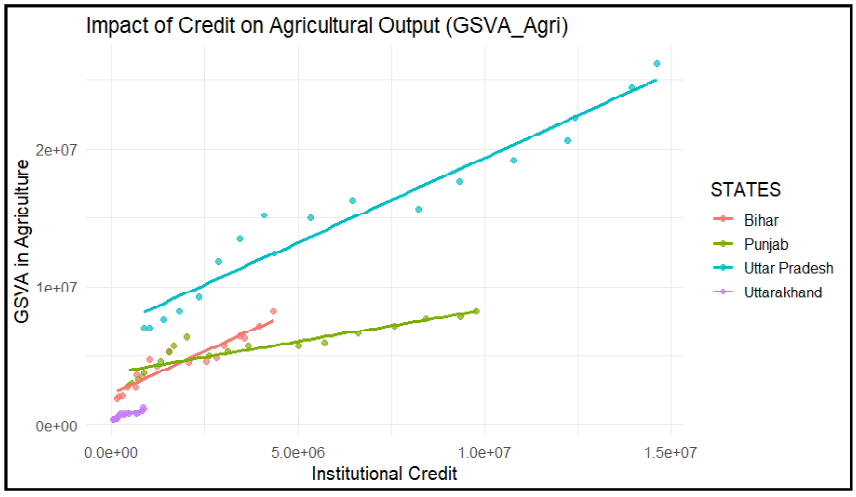
Northern Region

Table 1: Model Estimation of Northern Region

Dependent Variable: $GSVA_Agri_{it}$	
Panel Models	**Random Effects Estimation**
Constant	254060.00 (1226800.00)
$Credit_{it}$	0.77565 (0.0591) ***
$Irrigated_{it}$	195.00 (53.71) ***
$Sown_Area_{it}$	-61.04 (25.36) *
$Fertiliser_{it}$	12986.00 (3553.00) ***
Significance level: *10%; **5%; ***1%	
R^2	0.875
Adjusted R^2	0.86919
LM Test	6.4941 (0.0108) **
Hausman Test	$\chi^2 = 14.092$, p = 0.0070 **

Source: Authors' Compilation

Fig-1 Impact of Credit on Agricultural Output



Source: Authors' Compilation

The model for the Northern Region shows a strong fit ($R^2 = 0.875$), with all variables statistically significant, confirming a reliable relationship between institutional inputs and agricultural productivity.

Institutional credit (coefficient 0.7757) has the strongest positive impact, reflecting its central role in financing high-input farming systems. In states like Punjab and Uttar Pradesh, credit enables mechanization and infrastructure investment, while in Himachal Pradesh and Uttarakhand, it supports horticulture and protected cultivation. Bihar benefits through its shift toward semi-commercial farming.

Irrigated area (195.00) also shows a significant positive influence, with canal and tubewell systems enhancing cropping intensity, especially in cereal belts. Recent efforts in micro-irrigation in Bihar and hill states further improve water-use efficiency.

Surprisingly, net sown area has a negative impact (–61.04), suggesting diminishing returns from land expansion. This likely stems from overuse of marginal land, soil degradation, and poor land management in regions like Bihar and Eastern UP.

Fertilizer use (12,986) remains a major contributor to output, especially in high-input states. However, concerns about sustainability persist, even as some states adopt integrated nutrient management practices.

Overall, credit, irrigation, and fertilizers drive productivity in the North, while mere land expansion appears inefficient without complementary inputs or sustainable practices.

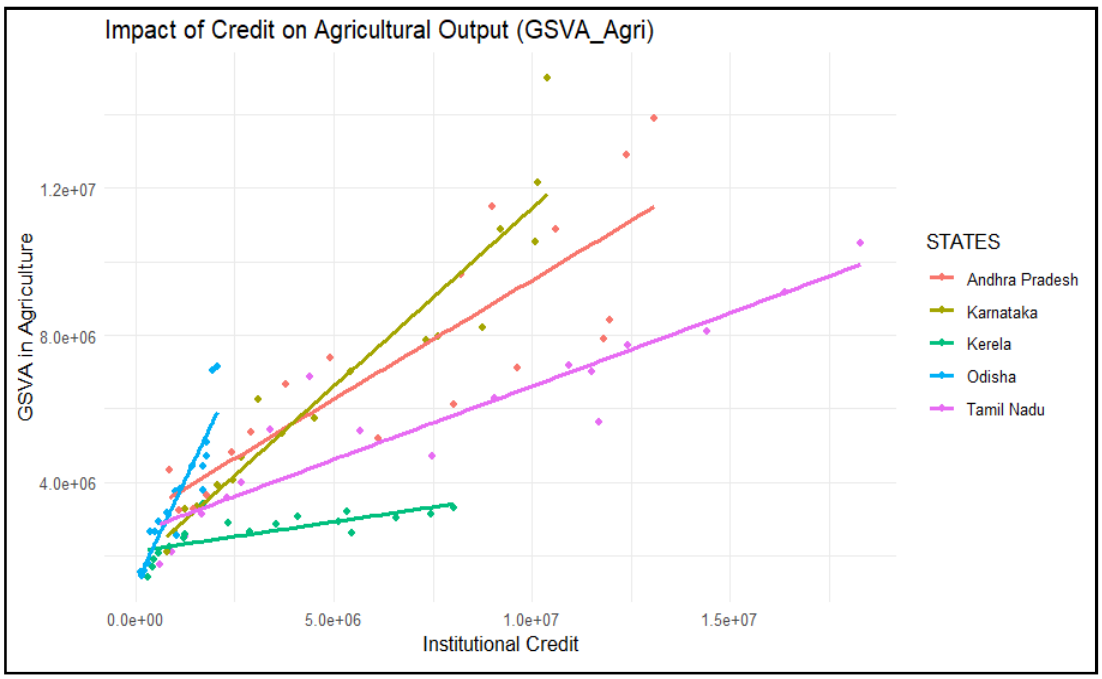
Southern Region

Table 2: Model Estimation of Southern Region

Dependent Variable: $GSVA_Agri_{it}$	
Panel Models	**Fixed effect Estimation**
$Credit_{it}$	0.4332 (0.0525) ***
$Irrigated_{it}$	1392.84 (459.70) **
$Sown_Area_{it}$	-1258.70 (344.00) ***
$Fertiliser_{it}$	4813.20 (3089.90)
Significance level: *10%; **5%; ***1%	
R^2	0.7282
Adjusted R^2	0.7014
LM Test	6.4941 (0.0108) **
Hausman Test	$\chi^2 = 14.092$, p = 0.0070 **

Source: Authors' Compilation

Fig-2 Impact of Credit on Agricultural Output



Source: Authors' Compilation

The model for the Southern Region demonstrates a solid fit ($R^2 = 0.7282$), highlighting the significant role of institutional factors and input use in explaining agricultural productivity across states like Tamil Nadu, Andhra Pradesh, Karnataka, Kerala, and Odisha.

Institutional credit shows a positive and significant effect (coefficient = 0.4332), supporting technological adoption, diversification, and integrated farming. In Andhra Pradesh and Karnataka, credit enables investments in drip irrigation, protected cultivation, and agri-enterprises, while in Tamil Nadu and Odisha, it supports mixed farming systems and rural infrastructure.

Irrigation has a strong and statistically significant impact (1392.84), reflecting the benefits of recent improvements in micro-irrigation, tank restoration, and solar pump initiatives, especially in water-scarce and rainfed areas.

Net sown area has a large and negative coefficient (–1258.70), indicating diminishing returns from land expansion, particularly where marginal or low-quality lands are brought under cultivation without adequate support.

Fertilizer consumption is positive (4813.20) but not statistically significant, suggesting that productivity gains are now less dependent on chemical inputs due to improved nutrient management, organic practices, and precision farming.

In summary, credit and irrigation are the primary contributors to agricultural growth in the Southern region, while land expansion remains inefficient, and fertilizer use reflects a shift toward sustainable input use and long-term soil health.

Comparative Regional Analysis: Northern vs. Southern States

The analysis reveals distinct regional patterns in how agricultural inputs and credit influence productivity. While both regions show a strong positive association between institutional credit and GSVA, the intensity and nature of these relationships differ significantly.

Institutional credit has a stronger impact in the Northern region (0.7757) than in the South (0.4332), largely due to its use in supporting high-input cereal farming, particularly in Punjab and Uttar Pradesh. In contrast, Southern states apply credit across a broader range of activities, including horticulture, post-harvest infrastructure, and diversified farming systems, which diffuses its direct impact on productivity.

Irrigation shows a significant positive effect in both regions but is more pronounced in the South (1392.84) than in the North (195.00). This reflects the South's recent adoption of efficient micro-irrigation and tank restoration practices, whereas the North continues to rely heavily on traditional canal and groundwater systems.

Net sown area negatively affects productivity in both regions, with a sharper decline in the South (–1258.70) than the North (–61.04). This suggests diminishing returns from land expansion, especially in areas with poor soil quality or limited infrastructure, such as Odisha and Karnataka.

Fertilizer consumption significantly boosts productivity in the North (12,986), consistent with its reliance on input-intensive farming. In the South, although the coefficient is positive (4813.20), it is not statistically significant, indicating a shift toward organic inputs and integrated nutrient management.

Lastly, the model fit is stronger for the North ($R^2 = 0.875$) than for the South ($R^2 = 0.728$), likely due to the North's more uniform cropping systems and input patterns, while the South's agricultural landscape is more diverse and complex.

In essence, the North is driven by conventional, input-intensive farming, whereas the South shows signs of a more diversified and sustainable agricultural model. Both require region-specific strategies to optimize credit effectiveness and input use.

CONCLUSION

This study undertook a comprehensive regional analysis of the impact of institutional agricultural credit on farm productivity in selected northern and southern states of India. Using panel econometric models over the period 2004–2022, the research highlighted significant inter-regional differences in credit utilization, input responsiveness, and agricultural output.

The findings affirm that institutional credit plays a pivotal role in enhancing agricultural productivity in both regions, albeit with varying intensities and outcomes. In the Northern region, credit has a stronger and more direct influence, owing to its integration with mechanized, high-input cereal farming systems. Conversely, in the Southern states, credit facilitates a broader range of agricultural and allied activities such as crop diversification, micro-irrigation, and post-harvest infrastructure, making its impact on productivity slightly more diffuse but supportive of long-term sustainability.

Irrigation emerges as a critical determinant of productivity across both regions, with the Southern region showing particularly strong gains through the adoption of efficient irrigation technologies and water management practices. Net sown area, however, has a negative impact in both regions, highlighting the inefficiency and diminishing returns from land expansion without complementary investments. Fertilizer use remains influential in the North, though its declining significance in the South reflects a gradual shift toward integrated and organic nutrient management practices.

The comparative analysis underscores the necessity for region-specific agricultural credit policies. While the North requires strategies focused on sustainable input use and groundwater conservation, the South would benefit from strengthened credit access for diversified farming systems and rural infrastructure development.

To bridge regional disparities and promote inclusive agricultural growth, the study recommends targeted credit allocation based on agro-climatic needs, improved rural banking outreach, enhanced financial literacy, and supportive institutional mechanisms. A data-driven, differentiated policy approach will be crucial for aligning agricultural finance with regional strengths and challenges, ultimately ensuring both productivity enhancement and sustainability in Indian agriculture.

Refrences

1. Binswanger, H. P., & Khandker, S. R. (1992). *The impact of formal finance on the rural economy of India*. World Bank. https://doi.org/10.1596/0-8213-2227-4
2. Chhoidub, & Pathania, M. S. (2017). *Impact of Kisan Credit Card on Institutional Credit Flow to Farmers: A Case Study of Himachal Pradesh*. *International Journal of Agriculture Sciences*, 9(17), 4376–4378.
3. Directorate of Economics and Statistics. (2022). *Agricultural statistics at a glance 2022*. Ministry of Agriculture & Farmers' Welfare, Government of India. https://eands.dacnet.nic.in
4. Meena, P. C., & Jhamtani, A. (2000). *Institutional credit and mechanization in agriculture: An analysis*. *Indian Journal of Agricultural Economics*, 55(3), 360–366.
5. Ministry of Finance. (2023). *Economic Survey 2022–23*. Government of India. https://www.indiabudget.gov.in/economicsurvey/
6. Narayanan, S. (2015). *The productivity of agricultural credit in India*. Indira Gandhi Institute of Development Research Working Paper Series. http://www.igidr.ac.in/pdf/publication/WP-2015-010.pdf
7. Reserve Bank of India. (2023). *Handbook of Statistics on the Indian Economy 2022–23*.
8. Reserve Bank of India. (2023). *Handbook of Statistics on Indian States*.
9. Yadav, A. (2019). *Regional disparities in agricultural credit flow in India*. *Journal of Rural and Agricultural Research*, 19(1), 17–22.

An Assessment of India's Trade with the United States of America and the Impact of New Tariff Policy on the Indian Economy

Dr. Savita Chauniyal[1]

ABSTRACT

United States of America is a key trading partner for India, which accounts for almost 18% of India's exports and only around 6% in imports. Naturally there is a large trade surplus for India, which has consistently grown in recent years. Recently, the geopolitical turmoil surrounding tariff wars has escalated. The US government issued a blanket 10% tariff hike on its trading partners along with additional hikes, based on the trade deficit. Later, the additional hikes were put on hold, but the threat of tariff hike remains. There has been serious criticism of such policies and true ramifications are now getting unfolded. In a globalized world with complex supply chains and extensive trade, India also stands exposed to such changes in tariff policies. Therefore, it is essential to analyze and understand the nature of India's trade with the US in order to make policy improvements in a challenging geopolitical environment.

In this paper we analyze various economy sectors such as Agriculture, electronics, textiles, pharmaceuticals etc. which are dependent on trade with the US, as well as understand the impact of newly imposed tariffs. We use openly available secondary data from Ministry of Commerce, India and Bureau of Industry and Security (BIS), US, for our analysis. We elaborate both long- and short-term implications, which pose challenges as well as opportunities for India. In a rapidly changing global economic environment, such an analysis can help policy makers as well as businesses take pre-emptive steps that are beneficial. Some suggestions for navigating a complex trade environment are provided in conclusion.

Keywords: *tariffs, trade deficit, economic growth, trade partners*

INTRODUCTION

The imposition of tariffs by the Trump administration recently marks a pivotal shift in the global trade landscape, signaling a turn toward protectionism and bilateralism in U.S. economic policy. This event arises from the "America First" doctrine, these tariffs targeted a range of countries, including China(125%), the European Union(10%), and India(10%), and were justified as necessary to protect American industries and reduce trade imbalances. There has been severe criticism from

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experts about this policy, particularly because economies today depend upon a complex supply chain which is difficult to rearrange suddenly. Such measures may partially succeed in the longer run, however the immediate effect would be felt within the US first, where inflation, cost of living and unemployment will rise. Many such effects have already started to take place and continue to unfold. Furthermore, a more lasting damage in trust of US treasuries have already taken place. The dollar has been the most trusted global currency in a post-world war world order, which is not steadily declining. As a countermeasure, the Trump administration has rolled back hefty tariffs against most nations except China, however a threat of further imposition remains.

For India, one of the world's fastest-growing economies and a longstanding U.S. trade partner, the tariff imposition came as both a diplomatic setback and an economic challenge. Previously in 2019, the Trump administration revoked India's benefits under the Generalized System of Preferences (GSP), a move that affected over $5 billion worth of Indian exports. This decision, coupled with increased tariffs on specific goods such as steel and aluminum, disrupted several sectors in India including textiles, pharmaceuticals, and engineering goods. India responded with retaliatory tariffs on U.S. products such as almonds and apples, triggering a tit-for-tat trade tension that strained bilateral economic ties. Later, the Biden administration took a more multilateral approach and shown a willingness to re-engage with allies, yet many of the Trump-era tariffs remained in place. With the Trump administration again, the recent tariff imposition poses a steep economic challenge for India. India shares a considerable trade surplus with the US and can be adversely affected by tariffs. In this paper, we elaborate the bilateral trade between the countries and assess the sectors which are most exposed to such tariffs. Some policy measures and suggestions are provided to mitigate and manage a global tariff crisis.

OBJECTIVES

The objectives of the paper are as follows: -

- To analyze the nature of bi-lateral trade between India and US, in the light of an escalating tariff war.
- Identify the most significant sectors which are exposed to tariff wars.
- Suggest policy steps and strategies to absorb the impact of trade wars in the form of a global recession.

METHODOLOGY

In this paper we have used openly available secondary data from Ministry of Commerce, India and Bureau of Industry and Security (BIS), US, for our analysis. The datasets are available online and in pdf form, which have been accessed and filtered to focus on the bilateral trade. In the same manner data from previous years has been tabulated and all analysis has been done using Microsoft Excel.

RESULTS & DISCUSSION

India-US bilateral trade

The US is India's largest trade partner as of 2024, yet India ranks tenth in the list of US trading partners for the same year. The bilateral trade between the US and the world's most populous nation

stands at $129.2 billion in 2024, a record for the partnership. According to the provisional data of the Commerce Ministry, the bilateral trade between India and the US increased by 7.65% to US$ 128.55 in 2022-23 as against US$ 119.48 billion in 2021-22. India - USA trade is likely to touch US$ 300 billion in 2026-27 from its current trade, a report released by industry body PHD Chamber of Commerce and Industry (PHDCCI) stated.

Figure 1 shows the largest trading partners for India in terms of total trade (in billions of $). It is seen that US and China are the most important trading partners followed by UAE, Russia and Saudi Arabia. It is noteworthy that a majority of the trade with the gulf countries is primarily related to crude oil and related products. In contrast trade with US and China spans many different sectors of India's economy. The Figure is clearly able to show, how important US is for India's trade and emphasizes that tariffs or strained bilateral relationships between the two countries can have a significant effect on India's economy.



Figure 1: Top 10 largest trading partners for India, in billions of dollars. Source: Ministry of Commerce and Industry, India

On the other hand, Figure 2, shows the largest trading partners for the US (in billions of $). India ranks 10th in the list, which is well behind smaller countries like South Korea, Taiwan and Vietnam. This figure clearly shows that for US trade relations with Mexico, Canada and China are significantly important. Therefore, retaliatory tariffs in the future will have a far diminished effect on the US economy. On the contrary retaliatory tariffs by China, Canada and Mexico would have profound implications for the US economy as we are already seeing.



Figure 2: Top 10 largest trading partners for the US, in billions of dollars. Source: US Census Bureau.

A major cause for the US in implementing sweeping tariffs was an increasing trade deficit with trading partners. Many experts believe that impositions of tariffs is an ineffective way to minimize trade deficit. Instead, tariffs can be risky as it can cause trade disruptions and severe economic losses to companies and firms. The diversification of supply chains and construction of factories in areas where labor costs are cheaper is the key reason why companies choose to move manufacturing to developing countries.

For example, an iPhone factory in India is going to be much more profitable for a company than an iPhone factory in the US, due to cheap labor. Thus, this is very much a symbiotic relationship where both countries can benefit and usher economic growth. In this light, it is incorrect to only see trade deficit as a metric of trade. For example, many goods made in the US are very expensive in India, not only due to the strength of the dollar but also due to high labor costs. It is natural that only specific consumers in India can buy them, which leads to a less demand for such goods. On the contrary cheaper goods from China are already very prolific in Indian market and sometimes occupy complete shelves during festival seasons. Therefore, we need to look at trade and trade deficits in a much more nuanced manner.

In Figure 3, the growing trade deficit for US has been highlighted. Note that the figure is from a US perspective, and a trade deficit implies that India has the same trade surplus with the US.

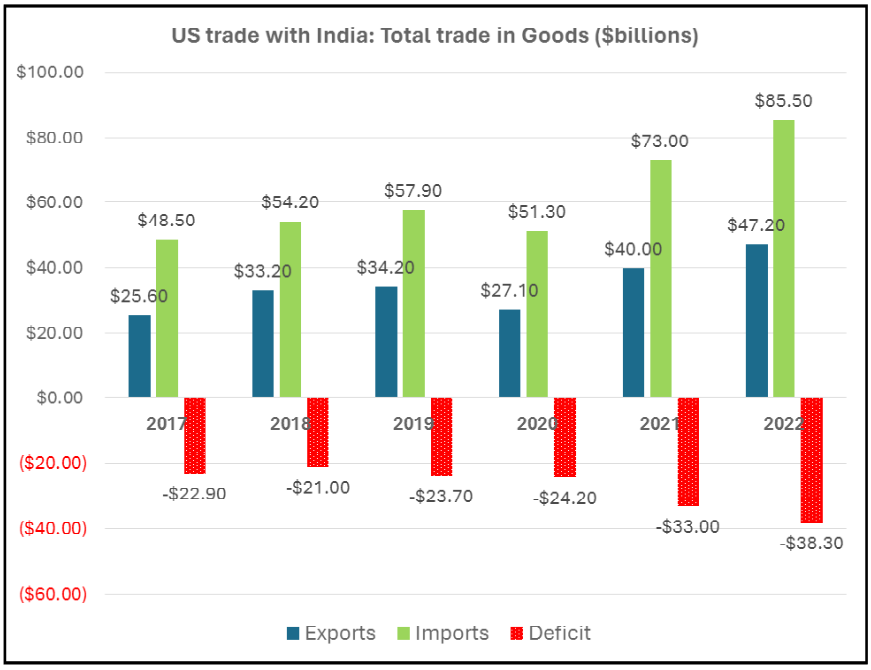


Figure 3: Total US trade with India in the previous years. Source: U.S Census Bureau Trade Portal.

It can be seen from Figure 3, that US import from India has been steadily increasing and this trend has continued to well beyond 2022. The current trade deficit in year 2024 stands at -45.7 billion$. From the perspective of India this is a positive news as the exports to US markets have very steadily increased, which shows strong signs of growth. However, the recent reciprocal tariffs by Trump administration used the trade deficit as a measure of tariff calculation, which leads to a very high tariff rate for India. While this rate has now been removed, but the tariff threat remains. Therefore, if Trump administration insists on adding tariffs using such rates, it can cause a significant affect to India's economy.

Analysis of sector wise bilateral trade

It is essential to understand the sectors which are primarily exposed to US tariffs. Figure 4 shows the percentage split of different trade sectors.

Chemicals, Plastics, Rubber and Leather Good are the prime exports of India to the US. Followed by precious stones industry, like diamond, pearls and jewelry. Which is followed by the textile industry. Together only the top 3 sectors occupy more than 50% of the trade. Therefore, is safe to say that India does not have a very diverse trade with the US in terms of multiple sectors, rather very focused sectors stand out. This has both pros and cons. While the pros are that in the event of a trade war, multiple sectors would not be significantly hit, but at the same time the top trade sectors will have a crippling effect. To better understand how tariffs can affect certain sectors we will look at the consequences of trade policies in 2019, under the first Trump administration.

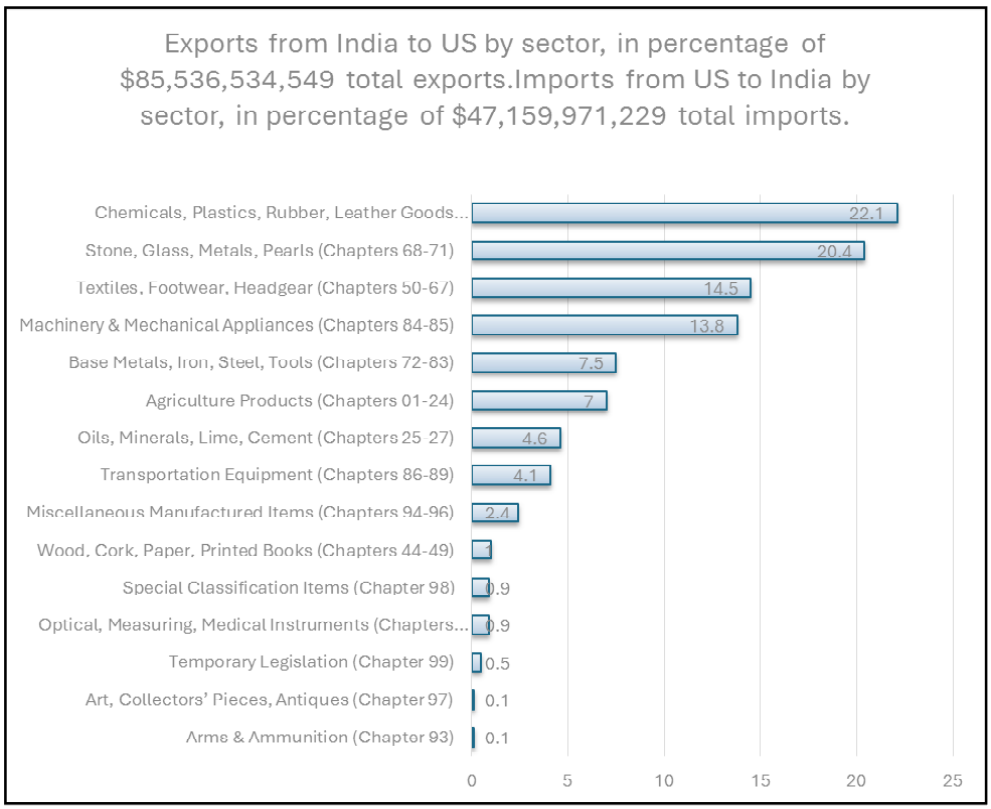


Figure 4: India's commodity trade with the US, 2021, in percentage of total exports. Source:U.S Census Bureau.

In June 2019, when the United States revoked India's preferential trade benefits under the Generalized System of Preferences (GSP), which significantly impacted India's export-oriented sectors, disrupting long-standing commercial ties and injecting uncertainty into trade flows. This program, which allowed duty-free access for over 3,000 Indian products—including textiles, engineering goods, auto components, and jewelry—was crucial for small and medium-sized exporters. The removal of this status affected nearly $5.6 billion worth of Indian exports, making a sizable dent in India's competitive advantage in the U.S. market. The textile and garment industry, which has long relied on the U.S. as a key market, saw a decline in orders and profit margins. Similarly, auto parts and engineering goods, which benefited from zero-duty access, now had to compete with higher tariffs, reducing their attractiveness compared to other suppliers. The pharmaceutical industry, although less affected due to its high-value nature and essential status, still faced compliance uncertainties and added friction in trade negotiations. Another major blow came from the U.S. tariffs on steel (25%) and aluminum (10%), imposed in 2018 under Section 232 of the Trade Expansion Act. India, which was among the top ten steel exporters to the U.S., experienced a sharp drop in shipments. For example, Indian steel exports to the U.S. fell by nearly 50% in 2018–19, according to trade data from India's Ministry of Commerce.

In retaliation, India imposed counter-tariffs on 28 U.S. products in June 2019. These included agricultural goods such as almonds, walnuts, apples, and chickpeas, many of which are produced in politically sensitive U.S. states like California and Washington. While these measures were symbolic and targeted to pressure the U.S. politically, their actual economic impact was relatively limited compared to the losses faced by Indian exporters. This is evident if one considers US imports to India in Figure 5. India is dependent upon US for many specific sectors and a retaliatory trade policy by India would damage India more.

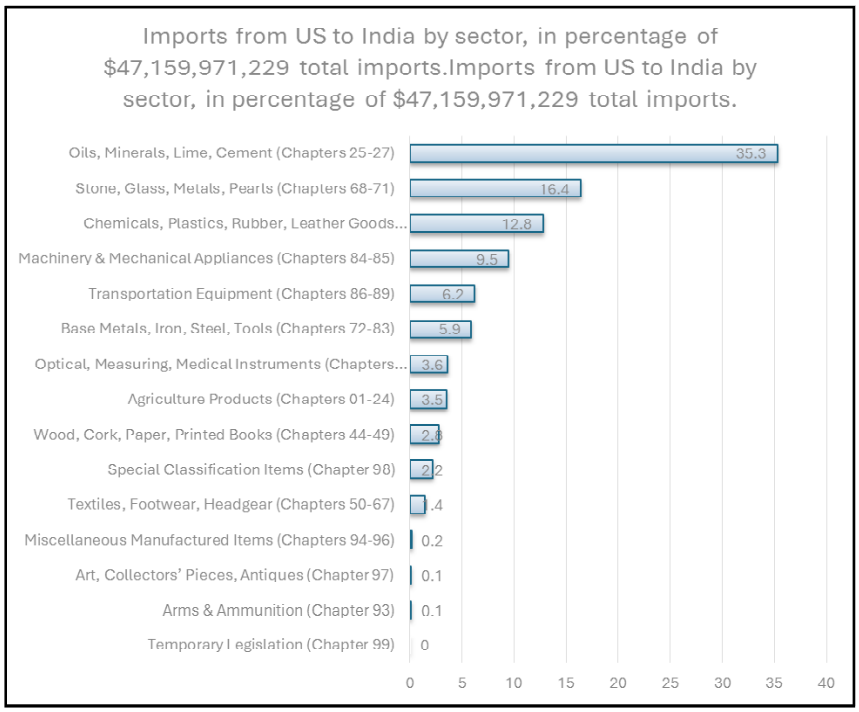


Figure 5: The US commodity trade with India, 2021, in percentage of total exports. Source:U.S Census Bureau.

Therefore, it is essential to suggest ways and means to best mitigate the effects of the tariffs in the future.

Strategies and suggestions to mitigate tariff effects

India has already begun taking steps to mitigate the impact of Trump-era tariffs and similar external trade shocks, but there's still more that can be done. The following suggestions can help.

- **Diversifying Export Markets** : Overdependence on any single market (like the U.S.) makes Indian exporters vulnerable to policy shifts like tariffs or sanctions. Many countries around the world have been feeling alienated due to the protectionist policies of the Trump administration. This has serious implications as recently investors have shunned the US market and are looking for more stable alternates. Similarly, we have started to see a trend of boycotting US made

goods in Europe due to extreme right winged views and meddling in domestic policies. India should capitalize on these events and look forward to trade partnerships with countries facing the brunt of tariffs such as Canada, China and the EU. I can Pursue FTAs and trade pacts with the EU, UK, Australia, and UAE (many are already in negotiation or recently signed) and can focus on strengthening trade within Asia and Africa, where growing markets provide new demand. Moreover, it needs to incentivize companies to explore non-traditional markets with less regulations and ease of doing business. This is a difficult aspect but with some concentrated political willpower as well as stakeholder partnerships it can work well.

- **Investing in Domestic Competitiveness:** India needs to push for making Indian products more competitive in the global market. While, the Make in India policy has been a major step in this direction, Indian manufacturing is still plagued by high production costs, infrastructure bottlenecks, and bureaucratic red tape. There has to be a considerable investment push in areas of logistics, customs clearance, port infrastructure as well as labor and land regulations.
- **Boosting Self-Reliance and a becoming an alternate to China :** Self reliance is key considering the old trade paradigm has shifted into protectionism. Tariffs are now being used as a weapons against countries and therefore it is essential to have self-reliance of strategic products such as chips, semiconductors etc. Atma Nirbhar Bharat is a step in that direction however much more investment is needed in domestic innovation and R&D, especially in sectors like electronics, semiconductors, and pharmaceuticals. Moreover, India needs to build **resilient supply chains** by becoming a manufacturing alternative to China. Many companies are now looking to diversify their manufacturing to reduce overdependence on one country. In this regard, Vietnam, Bangladesh, Indonesia have shown greater growth than India in bringing investment. Yet, India can still bank upon this opportunity and invite investment using trade policies and an infrastructural push.
- **Strengthening Digital Trade and Services:** India's software exports and solutions driven economy has been a key driver of growth an provider of many technological jobs. Companies such as Infosys, Wipro, Accenture etc are household names in India, but cater to global clients. Unlike physical goods, digital trade (software, consulting, fintech, education) is less affected by traditional tariffs. Therefore, there is immense scope to strengthen this sector more and become leaders in the market. In digital segments India's companies and products are already competitive at the global market and with more investment push India can become a market leader.

CONCLUSION

The evolving dynamics of U.S. tariff policy, particularly under the Trump administration, have significantly altered the landscape of global trade and posed serious challenges for India's export-driven economy. As the largest export destination for Indian goods, the United States plays a critical role in India's trade ecosystem, making any policy shift—such as the withdrawal of GSP benefits or imposition of sector-specific tariffs—both economically and diplomatically consequential. Our analysis shows that key Indian sectors, including textiles, pharmaceuticals, agriculture, and engineering goods, remain highly exposed to U.S. tariff decisions. These disruptions have not only affected export revenues but have also forced Indian businesses to reassess their dependency on a

single trade partner. Moreover, the uncertainty surrounding potential future tariffs continues to hinder long-term planning and investment. However, these challenges also present an opportunity for strategic realignment. India must now focus on enhancing its domestic competitiveness, diversifying export markets, become more self-reliant and steadily support its digital services sector. In conclusion, while the impact of U.S. tariffs on India has been significant, it need not be permanently damaging. With proactive policymaking, a balanced self-reliance approach, and sustained global engagement, India can not only mitigate the effects of trade protectionism but also emerge stronger in an increasingly multipolar economic order.

REFERENCES

- United States Census Bureau - https://www.census.gov/foreign-trade/balance/c5330.html#2025
- Ministry of Commerce and Industry India - https://www.commerce.gov.in/trade-statistics/
- World Bank Report - https://www.worldbank.org/en/publication/global-economic-prospects

An Empirical Investigation into the Relationship between Exports and GDP using Data from India

Dr. Shashi Lata Singh[1], & Ankur[2]

ABSTRACT

In this study, we have analysed the empirical relationship between Exports and Gross Domestic Product (GDP) for India by using time series data from the period 1980-81–2023-24.

The study's objective was accomplished by using time series data to test econometric techniques (the Granger Causality, Cointegration, and Augmented Dickey-Fuller Test) to evaluate the hypotheses of GDP strategy driven by exports and exports led by GDP. In order to investigate the causality and cointegration between GDP and export for India, the Granger Causality model is predicated on the following hypotheses. (1) if the relationship between exports and GDP growth in India is reciprocal. (2) Whether there is unidirectional causality between the two variables, (3) Whether there is no relationship between GDP and export for India. (4) Whether there exists a long-run relationship between GDP and Export for India. According to the findings, there is a Uni-directional relationship between GDP growth and exports for India.

In the case of India, the results are consistent with both export-led growth but not for growth-led export. In order to facilitate the flow of products and services, it is necessary to revive intermodal transportation and coastal shipping preparations.

Keywords: *Exports, GDP Growth, India, Japan, Granger Causality, Cointegration.*

Introduction

Exports can become a growth engine of any economy that enhances the production quality and labour productivity. Through Export growth, GDP growth can robustly increase and impact other macroeconomic variables of the economy. In present time, Export is very important tool to promote the economic prosperity for their nation and also for the whole world. The good quality exports of goods and services make the whole world a market.

India's foreign trade exhibits a long-time trade deficit. The domestic demand for foreign goods encourages the imports of goods. In 1950- 60, India adopted Import substitution policies to promote industrialization and encourage the domestic firms to produce goods according to the domestic needs. The domestic production contributes to employment generation and national income. The

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Import substitution policy significantly contributes toward India's growth. Many developing countries adopted import-substituting policies to enhance the economic growth and experience the same results. In that time many developing countries adopted Export promotion policies and experience economic growth. These dynamics of the economics impacted the other developing countries and attracted them.

In India, the overall stance was protectionist; there were some limited attempts at liberalization, such as in 1966 and the 1980s, which offered some incentives for exports and eased certain restrictions. The pre-liberalization policies resulted in **sluggish export growth** for India.

While some sectors managed to achieve modest export success, the overall export performance remained below its potential, setting the stage for the significant policy shifts of the 1991 liberalization. The formation of the World Trade Organization (WTO) on January 1, 1995, replacing the General Agreement on Tariffs and Trade (GATT), significantly reshaped India's export perspective and its integration into the global trading system.

According to the above briefing, this study attempts to show the short-run and long-run relationship between Export and GDP growth. Many authors attempt to show the GDP-led Export growth, but this study tries to rectify the Export-led economic growth.

This research paper is divided into four sections. Section 1 presents the introduction, section 2 contains a review of literature, and section 3 includes objectives, data collection, research methodology, results, and analysis, whereas section 4 concludes the study.

Literature Review

Ranjan and Chintu, (2013) have discussed the causality between Export, Import and GDP from the period of 1950-51 to 2008-09 in India. In causality, we test, GDP impacting the Export and Import or Export and Import impacting to GDP. The period from 1950-51 to 1991-92 was considered as pre-reform period and from 1991-92 to 2008-09 considered as post-reform period. In this study, they employed the Co-integration regression to test the long- run relationship between these macroeconomic variables like- GDP, Export and Import. This research paper also includes the OLS method to test the Export elasticities and Import elasticities with respect to GDP. The results of this showing that Export and Import cause GDP growth but GDP does not cause Export and Import growth. This shows that there is only Unidirectional relationship between the Export, GDP and Import.

Singh and Tandon, (2013) have studied the causality between FDI and Export with respect to India. In this study, they have taken the time period from 1990 to 2013. The data source of this study was DBIE (website of RBI). This study executed the unit root test, Johnson co-integration test and granger causality test to find relationship between FDI and Export through the e-views software. This study found that FDI does not granger cause Export nor Export granger cause FDI. It means, there was no long run relationship between FDI and Export.

Devi, (2013) has examined granger causality between Export and GDP from the time period 1990-91 to 2011-12 to India. The causality explains the relationship between variables. The source of data set was RBI's website. This study employed the unit root test, Johnson co-integration test and granger causality test to find the relationship between Export and GDP. She found that export

and GDP has bidirectional relationship between the variables. This shows that export granger cause GDP and GDP granger cause Export in long run.

Singh, (2014) has discussed the causality relationship between Export and GDP from the time period 2005 to 2014 to India. In this study secondary data is collected on monthly basis from the website of RBI. The causality relationship exhibits between two the variables. This study, executed the unit root test, Johnson co-integration test and granger causality test to find the short-run and long-run relationship between the variables. In this study, IIP (Index of Industrial Production) is used as proxy of GDP. The results of the study shows that Export granger cause the GDP and GDP granger cause the Export. It means that Export impact the GDP in long-run and GDP impact the Export vice versa.

Guntukula, (2018) has examined the causality relationship between the Export, Import and GDP with reference to India. In this study the monthly data set from 2005 to 2017 was use to analyse the causality between the Export, Import and GDP. This study employed the ADF for unit root test, Johnson for co-integration test and causality for granger causality test. The results of this shows that export granger cause the GDP and GDP granger cause the Export. This shows that there is bidirectional relationship between the Export, Import and GDP.

Mohanty and Sethi, (2019) have discussed the causality relationship between the FDI and Export from the time period of 1980 to 2017 in India. They used the ADF and Phillip-Perron test for stationarity and ARDL test for co-integration and causality for granger test. The ARDL test shows that there was not long run relationship between the variables. The granger causality test exhibits the unidirectional relationship, it means that FDI granger cause the Export but not the Export granger cause the FDI.

Chauhan, (2020) has examined the causality relationship between the Export and GDP from the tie period of 2000 to 2018 with respect to India, USA, Japan, Germany and Singapore. This study employed the correlation matrix to test the causality between the variables Export and GDP. The results of this study shows that India's export does not cause GDP but other countries like USA, Japan, Germany and Singapore's Exports impact the GDP.

Subhan, Alharthi, Alam, Thoudam and Khan, (2021) have discussed the causality between the Export and GDP from the time period of 1961 to 2015 in India. They employed the VAR (Vector Auto Regression) model to test the long-run relationship between the variables. In this study, ADF and Phillip-Perron test is used to check the stationarity and granger test is used to test the causality of time series data. In this study they have found that there is unidirectional relationship between the Export and GDP. This shows that Export granger-cause the GDP but GDP does not granger cause the Export.

Kumar and Gosai, (2025) have analysed the India's Export intensity and Export concentration of 1988 to 2022. India's Export intensity index to USA and UAE shows the significant impact but the concentration index shows moderate impact on USA, Whereas UAE and China showed high concentration index of India Export. India's Export intensity index to Japan is decreasing over the years.

Objectives

The main objective of this study is to explore the relationship between the Export and GDP.

Data collection and Research methodology

The goal of this study is to inquire into the relationship between the Exports and GDP. To achieve the research objective, annual data ranging from 1980-81 to 2023-24 are collected, which consists of 44 years of annual data for the analysis. The choice the data series is based on the convenience of data. Representation of variables and data sources is shown in Table 1. All the variables are modified into the natural logarithmic form.

Table1: Representation of Variables

Acronyms	Construction of variable	Units	Data Source
Export	Natural logarithm of the Export	Rs. Crores	RBI Website
GDP	Natural logarithm of the GDP	Rs. Crores	RBI Website

In this study, the time series data analysis technique has been employed to investigate the relationship between Export and Economic Growth. The results might be spurious in time series analysis if time series is not stationary. So, the data series must follow the time series properties, i.e., the time series data must stationary, meaning that the mean and variance should be constant over time and the value of covariance between two time periods depends only on the distance between the two-time period and not the actual time at which the covariance is computed.

Unit Root Test

Testing the time series variable's stationarity is the first and most important step before estimating for co-integration and a causal relationship between them. This is done to avoid any erroneous or misleading relationships between the variables. It is argued that a set of data is

stationarity in the event that its variance and mean are time invariant. The most famous and widely used test for stationarity is the unit root test. The existence of a unit root indicates that the data series is non-stationary. The Augmented Dickey Test (ADF) (1979) (1981) is the most standard procedure for unit root test to check the stationary nature of the series. Assuming that the series follows an AR(p) process, the ADF test makes a parametric correction and controls for the higher order correlation by adding the lagged difference terms of the dependent variable to the right-hand side of the regression equation. In the ADF test, null hypothesis indicates that the data series has a unit root. The unit root test also provides the order of integration of the time series variables. In a multivariate context, if the variables under consideration are found to be I (1) (i.e. they are non-stationary at level but stationary at first difference), but the linear combination of the integrated variables is I (0), then the variables are said to be co-integrated (Enders, 2004).

$$\Delta Y_t = \beta_1 + ZY_{t-1} + \alpha_t + e_t \text{(with intercept)} \quad \ldots(1)$$

$$\Delta Y_t = \beta_1 + \beta_{2t} + ZY_{t-1} + \alpha_t + e_t \text{ (with trend and intercept)} \quad \ldots(2)$$

$$\Delta Y_t = ZY_{t-1} + \alpha_t + e_t \text{ (with no trend and no intercept)} \quad \ldots(3)$$

Where Y_t is dependent variable; β_1 and β_2 are the coefficients used as parameters; and Y_{t-1} is the differences with the lag value.

The Null and Alternate hypothesis to check the unit root test is

H_0: Z = 0 (Y_t is non-stationary or has the unit root).

H_1: Z ≠ 0 (Y_t is stationary or contains no unit root).

The null hypothesis of the unit root shows that the series has unit root or non-stationary. The value of the test statistic is compared with the critical value. Normally, critical value at 5% is selected. If the test statistic is more than the critical value, then reject the null hypothesis and vice-versa. The test is conducted at three stages- levels, first difference, and second difference.

Co-integrationTest

The cointegration test is executed to test the long-run relationship between the variables. The cointegration test is popularly known as the Johansen cointegration test. The results of the cointegration test are based on two statistics: first, based on Trace statistics, and second, is based on Maximum-Eigen value. The hypothesis for the test is one indicating no cointegration between the variables, and two indicating one cointegration equation between the variables. In this study, the Johansen cointegration test is conducted.

$$Y_{t-1} = A_1 Y_{t-1} + A_2 Y_{t-2} + \ldots\ldots\ldots A_p Y_{t-p} + \alpha_{t-p} \ldots\ldots (4)$$

Granger Causality test

Further, to analyse the causality between the Export and GDP, the Granger causality test is conducted. To test whether Export granger cause GDP or GDP granger cause Export.

The following equations support the bidirectional causality:

$$ExP_t = \sum_{i=1}^{n} \alpha_i ExP_{t-i} + \sum_{j=1}^{n} \beta_j GDP_{i-j} + l_{t1} \ldots\ldots\ldots (5)$$

$$GDP_t = \sum_{i=1}^{n} \emptyset_i ExP_{t-i} + \sum_{j=1}^{n} \emptyset_j GDP_{i-j} + l_{t2} \ldots\ldots (6)$$

In this study, the following hypothesis have been formulated and tested:

H_0: There is no significant relationship between GDP and Export.

H_1: There is significant relationship between GDP and Export.

Results and Interpretation

In this study, to examine the stationarity of the data series, we have employed the Augmented Dickey-Fuller (ADF) procedure to test the existence of a unit root. If the unit root exists, then the data series is non-stationary and vice-versa. The results are depicted in table 2. The ADF test results show that all the series are non-stationary at level with intercept. However, after taking the first difference, these series are found to be stationary at 1%, 5% and 10% level. So, the stationary tests depict that all the series are individually integrated of the order I (1).

Table 2. Augmented Dickey Fuller Unit root test

Variable			At level		At First Difference	
			t-statistic	Prob.*	t-statistic	Prob.*
LNGDP	Augmented Dickey Fuller test statistic		-1.5791	0.4767	-4.4252	0.0103
	Test critical values	1% level	-3.7529		-4.4407	
		5% level	-2.9980		-3.6328	
		10% level	-2.6387		-3.2546	
LNEXPORT	Augmented Dickey Fuller test statistic		-1.6083	0.4624	-4.6735	0.0062
	Test critical values	1% level	-3.7529		-4.4407	
		5% level	-2.9980		-3.6328	
		10% level	-2.6387		-3.2546	

*Mackinnon (1996) one-sided p-values.

Source: Author's Estimation

The study further shows that the Johansen cointegration (1991) test is conducted to show the long-run association between the variables, namely, GDP and Export. The results of cointegration test are depicted in table 3 and 4. The results of cointegration test can be shown in two ways, one is trace statistic and second is max-eigen value. Table 3 shows the results of trace statistics. In table 3, at none shows the null hypothesis. The trace statistics and critical values are respectively, 14.3729 and 12.3209 in table 3. Which shows that trace statistics are greater than the critical values, thus we can reject the null hypothesis. Hence that there is one cointegration between the variables. Similarly, table 4 shows the results of maximum-eigen values statistics. In table 4 at none, maximum eigen values are 14.3531 and critical values are 11.2248. This shows that maximum-eigen values are greater than the critical values, so we can reject the null hypothesis. Hence that there is one cointegration between the variables.

Thus, the trace statistics and maximum-eigen shows that there is long-run relationship exist between the variables namely, Economic growth and Export.

Table 3 and 4 Results of Johansen Cointegration Test (Table 3.)

Lag Interval (in first difference): 1 to 1 **Unrestricted Cointegration Rank Test (Trace statistics)**				
Hypothesized No. of CE(s)	**Eigenvalue**	**Trace Statistic**	**Critical Value at 0.05**	**Prob.****
None*	0.4792	14.3729	12.3209	0.0224
At most 1	0.0008	0.0197	4.1299	0.9085
Note: Trace test indicates one cointegration equation(s) at 0.05 level; * indicates rejection of hypothesis at 0.05 level and ** Mackinnon-Haug-Michelis (1999) p-values				

Table 4.

Unrestricted Cointegration rank test (Maximum Eigenvalue)				
Hypothesized No. of CE(s)	**Eigenvalue**	**Max-eigen statistic**	**Critical Value at 0.05**	**Prob.****
None*	0.4792	14.3531	11.2248	0.0137
At most 1	0.0008	0.0197	4.1299	0.9085
Note: Trace test indicates one cointegration equation(s) at 0.05 level; * indicates rejection of hypothesis at 0.05 level and ** Mackinnon-Haug-Michelis (1999) p-values				

The results of Granger Causality Test (1987) are presented in table 5. The pair-wise Granger Causality test (1987) is conducted between the variables to determine the direction of causality. Both the hypothesis (rejected and not rejected) are reported in table 5. The first null hypothesis (LNEXPORT does not granger cause LNGDP) is rejected because p-value is less than the 0.05 % critical value. And second null hypothesis (LNGDP does not granger cause LNEXPORT) is not rejected because p-value is greater than the 0.05 % critical value. Hence, the results show that there is Unidirectional relationship exist between the variables.

Table 5: Result of Granger Causality Test

Null Hypothesis:	**Obs.**	**F-statistic**	**Prob.**	**Decision Rule**
LNEXPORT does not granger Cause LNGDP	44	3.27155	0.0492	Rejected
LNGDP does not Granger Cause LNEXPORT		0.31986	0.7282	Not Rejected

Source: Author's Estimation

Conclusion

In this study, we have conducted the Johansen cointegration test and Granger Causality test to check inter-linkage between the Indian Export and Economic growth (GDP). This study used the annual data series over the period of 1980-81 to 2023-24, which is collected from RBI's website.

The Johansen co-integration test presents that export and GDP growth are co-integrated with each other. This test proves that export has significant long-run relationship with GDP. The export is determining variable for GDP in long-run.

The results from Granger causality test confirms that there is a Uni-directional relationship between export and GDP growth. Export granger causes GDP but GDP does not granger cause export in long-run.

The current research validates the notion that exports still have an impact on economic growth. It is important to keep in mind the study's limitations. The scope of the current analysis is restricted to just two macroeconomic variables. The research purpose may be better explained by including more variables over a longer time period. The study can be logically extended by adding more variables and conducting an analysis.

References

1. Ranjan, R. & Chintu, A. K. (2013). Causality between GDP, Export and import in India: A Granger Causality approach. *SUMEDHA Journal of Management, Vol. 2*
2. Singh, A. B. & Tandon, P. (2013). Causality between FDI Inflows and Export with reference to India: An Analysis. *IUP Journal of Applied Economics, Vol. 14, No. 3*
3. Devi, S. S. (2013). Export, Economic Growth and Causality- A Case for India. *Journal of Global Economy, Vol. 9, No. 1*
4. Singh, G. (2014). Causality between Export and Economic Growth: A Case study of India.
5. Guntukula, R. (2018). Exports, Imports and Economic growth in India: Evidence from Cointegration and Causality analysis. *Journal od Theoretical and Applied Economics, vol. 25, No.2*
6. Mohanty, S. & Sethi, N. (2019). Does inward FDI lead to Export performance in India? An Empirical Investigation. *Global Business Review*
7. Chauhan, V. (2020). Relationship between Exports and Gross Domestic Product (GDP). *International Journal of Creative Research Thoughts, Vol. 8.*
8. Subhan, M., Alharthi, M., Alam, Md., S., Thoudam, P. & Khan, K. (2021). Relationship between Exports and Economic growth and other Economic Activities in India: Evidence from VAR Model. *Journal of Asian Finance, Economics and Business, Vol. 8, No. 12.*
9. Kumar, Dr. V. & Gosai, Dr. S. (2025). India's Export Dynamics: A Comparative Analysis of the United States. *Commercia, Vol. 1.*
10. https://www.rbi.org.in/Scripts/Publications.aspx?publication=Annual

Expenditure Decentralization and Macroeconomic Stability in India: An Empirical Analysis of the Misery Index (1991–2020)

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ABSTRACT

This study examines the impact of expenditure decentralization on macroeconomic stability in India using annual data from 1991 to 2020. Macroeconomic stability is proxied by the Misery Index, which combines the inflation and unemployment rates. Drawing on theoretical foundations that emphasize the potential of fiscal decentralization to improve governance and resource allocation, the paper empirically tests whether greater devolution of expenditure responsibilities to subnational governments contributes to stabilizing macroeconomic conditions. Using Ordinary Least Squares (OLS) regression, the analysis incorporates key control variables including gross capital formation, GDP growth rate, fiscal deficit, openness of the economy, and money supply. The findings indicate that expenditure decentralization has a positive but statistically insignificant effect on the Misery Index, suggesting that it does not contribute to macroeconomic stability and may instead be associated with higher inflation and unemployment. In contrast, GDP growth and trade openness exhibit a significant and negative relationship with the Misery Index, affirming their stabilizing roles. Gross capital formation and fiscal deficit show a positive association with macroeconomic instability, although with varying levels of significance. These results underscore the complexity of fiscal decentralization's impact on economic outcomes and suggest the need for strengthening institutional frameworks to ensure that expenditure decentralization achieves its intended macroeconomic benefits.

Keywords*: Expenditure Decentralization, Macroeconomic Stability, Misery Index, Fiscal Federalism, India*

Introduction

In recent decades, fiscal decentralization has emerged as a prominent reform strategy in both developed and developing countries. This global trend reflects a growing consensus on the need to empower subnational governments, enhance public service delivery, and foster more inclusive and participatory governance structures (Canavire-Bacarreza, Martinez-Vazquez, & Yedgenov, 2019;

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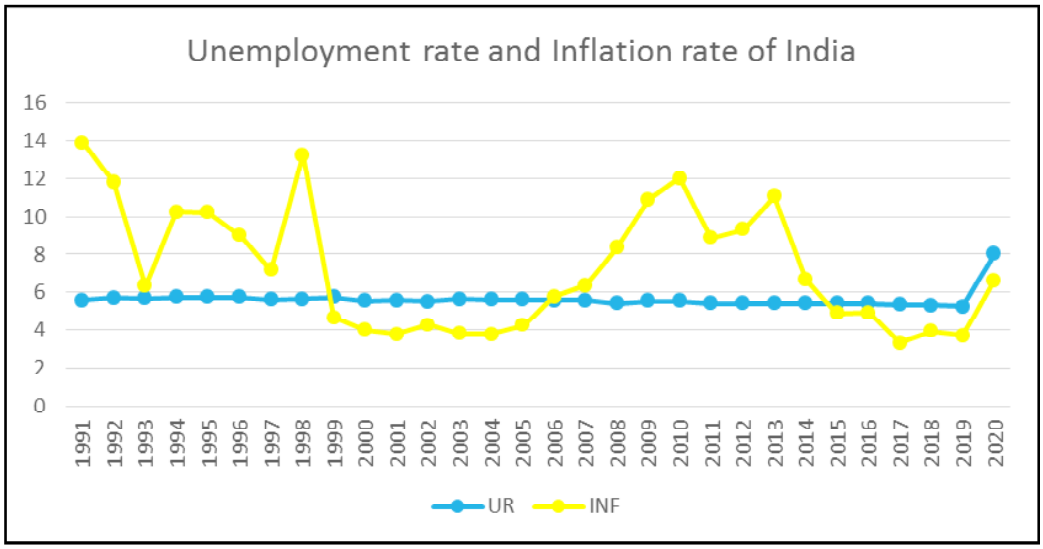
Martinez-Vazquez & McNab, 2001). Broadly defined, fiscal decentralization entails the devolution of financial powers and responsibilities from central to lower tiers of government. It encompasses two primary dimensions: revenue decentralization and expenditure decentralization. The present study focuses on the latter, which grants greater autonomy to subnational governments over public spending decisions. Expenditure decentralization enables state and local governments to allocate and manage public expenditures according to local preferences and conditions. The theoretical expectation is that such decentralization enhances the efficiency and responsiveness of public service delivery, as local governments possess better information about constituents' needs (Oates, 1993; Shah, 1994). However, the implications of expenditure decentralization are not limited to efficiency gains alone. Its impact on broader macroeconomic outcomes especially macroeconomic stability has become a subject of increasing interest in the academic and policy discourse.

Macroeconomic stability, characterized by low and predictable inflation, sustainable unemployment levels, controlled fiscal deficits, and stable exchange rates, is essential for sustainable economic development (Jalil, Tariq, & Bibi, 2012). Stability in these indicators creates an environment conducive to long-term policy planning, private investment, and economic growth. Conversely, macroeconomic instability, particularly high inflation and unemployment, can disrupt economic incentives, increase uncertainty, and undermine developmental progress. The relationship between expenditure decentralization and macroeconomic stability, however, is far from straightforward. While some scholars argue that decentralization can enhance fiscal discipline and reduce central fiscal burdens (Rodden, 2004), others caution that it may weaken national control over aggregate fiscal policy and lead to inefficiencies or disparities (Treisman, 2000; Prud'homme, 1995). Furthermore, in the absence of strong institutional mechanisms, subnational governments may engage in opportunistic fiscal behavior, leading to unsustainable fiscal outcomes (Jalil et al., 2012).

India presents a unique context for analyzing this relationship. As a quasi-federal country with a multi-tiered fiscal system, India has undergone significant fiscal restructuring, particularly since the 73rd and 74th Constitutional Amendments of 1992, which formally recognized local self-governments and created a three-tier federal structure (Rao, 2003; Thimmaiah, 2013). A major milestone in India's fiscal decentralization came with the Fourteenth Finance Commission (2015–2020), which increased the states' share in the central tax pool from 32% to 42% (Finance Commission of India, 2015). This shift aimed to strengthen the fiscal autonomy of states and improve their capacity to design locally tailored development programs. Concurrent reforms in centrally sponsored schemes further expanded states' discretion in public expenditure. Simultaneously, India has faced persistent macroeconomic challenges, including high inflation and unemployment, particularly in the post-liberalization period (1991–2020). These variables are jointly captured in the "Misery Index," a composite measure that reflects the economic discomfort experienced by the general population (Okun, 1970). A high Misery Index is indicative of deteriorating macroeconomic conditions. Given the scale and scope of India's fiscal decentralization, and the ongoing challenges in macroeconomic management, it is timely to explore the effects of expenditure decentralization on macroeconomic stability through the lens of the Misery Index.

The figure 1 shows the trends in India's unemployment rate (UR) and inflation rate (INF) from 1991 to 2020. Inflation exhibited high volatility, peaking notably in 1991, 1998, 2009, and 2013, while the unemployment rate remained relatively stable, with a sharp rise in 2020 likely due to the COVID-19 pandemic.

Figure 1: Unemployment and Inflation rate of India



Source: Word Development Indicators

Although existing research on fiscal decentralization in India has largely focused on growth, public service delivery, and intergovernmental fiscal transfers (Rao & Singh, 2005; Ghosh, 2012), relatively few studies have empirically examined its link with macroeconomic stability. International literature also offers mixed findings some highlighting destabilizing risks in weak institutional environments (Iqbal & Nawaz, 2010; Rauf et al., 2021), while others suggest that decentralization can foster responsible fiscal governance (Shah, 2006; Rodden, 2004). Against this backdrop, the present study investigates the empirical relationship between expenditure decentralization and macroeconomic stability in India during 1991–2020. Using the Misery Index as the key indicator, the paper aims to assess whether enhanced fiscal autonomy for subnational governments has supported or hindered macroeconomic stabilization efforts. The findings will offer insights into the trade-offs of fiscal federalism and inform future policy design in India's evolving fiscal landscape.

Review of Literature

The relationship between fiscal decentralization and macroeconomic stability has garnered increasing scholarly attention, particularly in the context of developing and transitional economies. While many studies have focused primarily on inflation as the key indicator of macroeconomic instability, relatively few have adopted broader indicators such as the Misery Index, which encapsulates both inflation and unemployment.

Rauf et al. (2021) investigated the effects of fiscal decentralization on macroeconomic stability in Pakistan from 1981 to 2017. Their findings indicated that while decentralization could enhance stability, it sometimes led to macroeconomic instability, primarily due to weak institutional frameworks, political inefficiencies, and lack of transparency at the subnational level. The study emphasized the need for institutional strengthening to harness the benefits of decentralization.

Ali and Batool (2017) conducted a similar analysis for Pakistan using data from 1974 to 2013. Their study concluded that fiscal decentralization had a favourable effect on macroeconomic stability. However, the positive impact was more pronounced for revenue decentralization than for expenditure decentralization, highlighting the importance of fiscal autonomy in revenue generation for achieving stable macroeconomic outcomes.

Palienko et al. (2017) focused on Ukraine over the period 2000–2015 and employed the Misery Index as a comprehensive measure of macroeconomic instability. Their findings revealed a negative and statistically significant relationship between revenue decentralization and the Misery Index, indicating that decentralization improved macroeconomic conditions. In contrast, expenditure decentralization showed an insignificant impact, echoing concerns about the capacity of subnational governments to effectively manage expenditures.

Jalil et al. (2012), in a panel analysis of 62 countries from 1972 to 2001, examined the relationship between fiscal decentralization, inflation, and fiscal deficits. They found a statistically significant negative relationship between fiscal decentralization and inflation, suggesting that decentralization can enhance price stability. However, no significant relationship was found between decentralization and fiscal deficits. The authors noted that the benefits of decentralization are maximized in countries with strong institutional arrangements, including independent central banks and transparent governance systems.

Iqbal and Nawaz (2010) provided one of the few studies employing the Misery Index in the context of Pakistan. Using time-series data from 1979 to 2010, they found that revenue decentralization had a significant and positive effect on macroeconomic stability, whereas expenditure decentralization showed a weaker and statistically insignificant impact. The study highlighted the complementary role of revenue autonomy in enhancing the effectiveness of expenditure assignments.

Shah (2006) conducted a cross-sectional study of 40 countries over the 1995–2000 period, focusing on the implications of fiscal decentralization for macroeconomic management. The study concluded that fiscal decentralization did not significantly influence inflation or other macroeconomic balances. Nonetheless, Shah emphasized the theoretical potential of decentralized systems to outperform centralized ones in macroeconomic governance, particularly when local governments are empowered with clear fiscal rules and responsibilities.

Martinez-Vazquez et al. (2006) analysed the effects of fiscal decentralization on inflation and economic growth in a broad cross-country sample. They found that decentralization tended to reduce inflation in developed countries, suggesting an improvement in macroeconomic stability. However, results were mixed for developing and transition economies, where institutional weaknesses may undermine the stabilizing potential of decentralization. The study further noted that while fiscal decentralization did not have a direct effect on economic growth, it contributed indirectly by enhancing macroeconomic stability.

Despite these valuable contributions, a notable gap remains in the literature: most studies emphasize inflation as the sole indicator of macroeconomic instability, neglecting other important variables like unemployment. Furthermore, empirical evidence on the role of expenditure decentralization especially in the context of India's unique federal structure remains limited. This study addresses this gap by employing the Misery Index as a comprehensive measure of

macroeconomic stability and analysing the impact of expenditure decentralization in India over the period 1991–2020.

Empirical Analysis

Data and Description of Variables

This study draws on data from multiple sources to ensure comprehensive coverage of the variables under investigation. Government expenditure figures for both central and state levels, along with export and import data, were sourced from the Centre for Monitoring Indian Economy (CMIE). Data on gross fiscal deficit (GFD) were obtained from the Reserve Bank of India (RBI) Handbook on Indian Economy, while information on gross capital formation (GCF) and GDP growth rates were extracted from the Economic Survey of India (2021-22). Additional macroeconomic variables such as broad money supply (M3), unemployment rate, and inflation were compiled from the World Bank's World Development Indicators (WDI). The dataset spans 30 annual observations from 1991 to 2020, capturing India's post-liberalization economic trajectory. A detailed description of all variables, including their units of measurement and sources, is provided in Table 1.

Table 1: Variable Descriptions

Variable	Description of Variable	Unit of Measurement	Source of Data
Dependent Variable			
MI	Macro-Economic Stability	INF + UR	World Development Indicator
Independent Variable			
ED	Expenditure Decentralization	Ratio	CMIE
GDP	Growth rate of Gross Domestic Product	Percentage	Economic Survey
GFD	Gross Fiscal Deficit	Percentage of GDP	RBI, Handbook on Indian Economy
INF	Consumer Price Index (Inflation)	Percentage	World Development Indicator
M3	Broad Money	Percentage of GDP	World Development Indicator
GPF	Gross Capital Formation	Percentage of GDP	Economic Survey
Openness	Export and Import	Percentage of GDP	CMIE
UR	Unemployment Rate	Percentage	World Development Indicator

Source: Authors Own Calculation

Analysis and Results

Test of Stationarity

The stationarity of the time series was confirmed using the Augmented Dickey-Fuller (ADF) test, with results summarized in Table 2. The analysis reveals that GDP growth rate and gross fiscal deficit (as a percentage of GDP) are stationary at their level I(0). In contrast, fiscal decentralization, revenue decentralization, expenditure decentralization, inflation rate, macroeconomic stability

(Misery Index), and trade openness exhibit non-stationarity at the level but achieve stationarity after first-differencing I(1). These findings underscore the necessity of transforming non-stationary variables to ensure robust econometric modelling and avoid spurious regression results.

Table: 2 Stationarity Test

Variable	Level		First Difference	
	Intercept	Trend and Intercept	Intercept	Trend and Intercept
ED	Non-Stationary	Non-Stationary	Stationary	Stationary
GCF	Non-Stationary	Non-Stationary	Stationary	Stationary
GDP	Stationary	Stationary		
GFD	Stationary	Stationary		
M3	Non-Stationary	Non-Stationary	Stationary	Stationary
MI	Stationary	Non-Stationary	Stationary	Stationary
Openness	Non-Stationary	Non-Stationary	Stationary	Stationary

Source: Authors Own Calculation

Regression Analysis

This study employs the Misery Index (MI) a composite measure of inflation (INF) and unemployment (UR) rates as a proxy for macroeconomic stability, following the methodology originally developed by Arthur Okun and applied in previous empirical studies (Ali & Batool, 2017; Iqbal & Nawaz, 2010). The index is calculated as:

$$\mathbf{MI = UR + INF}$$

The central focus of the study is on expenditure decentralization (ED), which is defined as the ratio of state governments' expenditure to the total government expenditure (central + state), following the approach of Jin and Zou (2005). The underlying hypothesis is that higher expenditure decentralization enhances macroeconomic stability by improving public service delivery, fiscal discipline, and responsiveness to local needs. To rigorously test this hypothesis, the model incorporates a set of control variables (Z) commonly associated with macroeconomic performance: the GDP growth rate (GGDP), gross fiscal deficit as a percentage of GDP (GFD), openness to international trade (OPEN), money supply as a percentage of GDP (M3), and gross capital formation (GCF).

The empirical model is specified as:

$$MI = \alpha + \beta_1 ED + \beta_2 GGDP + \beta_3 GFD + \beta_4 OPEN + \beta_5 M_3 + \beta_6 GPF + \varepsilon$$

This formulation facilitates an in-depth empirical analysis of the impact of expenditure decentralization on macroeconomic stability in India over the period 1991-2020.

To estimate the model, three Ordinary Least Squares (OLS) regression specifications were developed, each using the Misery Index as the dependent variable and incorporating expenditure decentralization alongside varying combinations of macroeconomic control variables. The results from these regressions provide insights into the nature and direction of the relationship between fiscal decentralization and macroeconomic stability in the Indian context (see table 3).

Table. 3 Expenditure Decentralization and Macroeconomic Stability: India, OLS Models (Dependent Variable: Misery Index)

Table. 3 Expenditure Decentralization and Macroeconomic Stability: India, OLS Models (Dependent Variable: Misery Index)			
Variable	**1**	**2**	**3**
Constant	-0.4028 [0.4999]	-0.0709 [0.4374]	-0.2545 [0.4656]
ED	23.4669 [21.8350]	18.1833 [21.7886]	22.0738 [23.5261]
GCF	0.7827* [0.2169]	0.8141* [0.2189]	0.6251* [0.2193]
GGDP	-0.7390* [0.2111]	-0.7993* [0.2092]	-0.5973* [0.2050]
GFD	0.8861*** [0.4465]	0.8531*** [0.4526]	0.7914 [0.4893]
M3	0.2019 [0.1543]		
OPEN	-0.3584** [0.1668]	-0.3823** [0.1684]	
Total Observations	29	29	29
Adjusted R-Squared	0.44567	0.4457	0.4285
S.E. of regression	2.2279	2.2279	2.2622

The figures in parentheses are standard errors. The statistical significance at 1%, 5%, and 10% levels is indicated by, **, and *** respectively.*

Model 1 includes gross capital formation (GCF), growth rate of gross domestic product (GGDP), gross fiscal deficit (GFD) as a percentage of GDP, broad money (M3) as a percentage of GDP, and openness (OPEN), measured as total export-import as a percentage of GDP, as explanatory variables. The results show that expenditure decentralization (ED) has a positive and statistically insignificant impact on the Misery Index. This suggests that increased decentralization of expenditures is associated with a deterioration in macroeconomic stability, albeit without robust statistical support. This finding aligns with the theoretical argument that in the absence of adequate institutional and fiscal capacity at sub-national levels, expenditure decentralization may lead to inefficiencies and pro-cyclical fiscal behaviour (Tanzi, 1996; Prud'homme, 1995). Such inefficiencies may result in increased public spending without corresponding economic output, thereby fuelling inflationary pressures and weakening labour market performance.

Notably, the GDP growth rate (GGDP) and openness (OPEN) have negative and statistically significant coefficients at the 1% and 5% levels, respectively. These results confirm the theoretical expectation that economic growth and integration with global markets promote macroeconomic

stability. According to endogenous growth theory, sustained GDP growth reduces unemployment through higher output and employment generation, while openness improves allocative efficiency, competition, and access to technology, all contributing to macroeconomic resilience. Gross capital formation (GCF) exerts a positive and significant impact at the 1% level, suggesting that while capital accumulation is vital for long-run growth, it may initially contribute to macroeconomic instability due to inflationary tendencies linked to rising demand for resources. Similarly, gross fiscal deficit (GFD) has a positive and weakly significant impact (at the 10% level), reinforcing the idea that higher fiscal imbalances can destabilize macroeconomic conditions by increasing inflationary pressures or undermining investor confidence. The coefficient for broad money (M3) is positive but statistically insignificant, indicating a limited or neutral role of monetary expansion in influencing short-term macroeconomic outcomes in this context.

Model 2 re-estimates the relationship by excluding broad money from the set of explanatory variables. The direction and statistical significance of the coefficients remain broadly consistent with Model 1. Again, expenditure decentralization retains a positive but statistically insignificant impact, reaffirming the earlier result. The negative and significant effects of GDP growth and openness remain robust, emphasizing their stabilizing role in the economy. Both GCF and GFD continue to show positive and significant impacts at the 1% and 10% levels, respectively, suggesting potential inflationary or destabilizing consequences in the short term.

Model 3 simplifies the specification by including only expenditure decentralization, GCF, GGDP, and GFD as explanatory variables. The results are consistent with Models 1 and 2. Expenditure decentralization maintains its positive and insignificant association with the Misery Index, indicating a persistent, though statistically weak, link between fiscal decentralization on the expenditure side and macroeconomic instability. Once again, GDP growth exerts a strong stabilizing effect, while gross capital formation remains a significant destabilizing factor, likely due to short-term mismatches between investment and productive output. Fiscal deficit remains positively associated with macroeconomic instability, though its impact is not statistically significant in this model.

Conclusion

This study examined the impact of expenditure decentralization on macroeconomic stability in India from 1991 to 2020, using the Misery Index as a composite indicator. The empirical findings reveal that expenditure decentralization has not significantly enhanced macroeconomic stability during this period. On the contrary, it appears to be linked with higher levels of inflation and unemployment, possibly reflecting weak institutional capacity, poor fiscal discipline, and inadequate accountability at the sub-national level. In contrast, variables such as GDP growth and trade openness consistently contributed to macroeconomic stability, supporting conventional economic theory. These results underscore the importance of strengthening institutional frameworks and enhancing the effectiveness of fiscal governance at the state level. While fiscal decentralization may bring governance and efficiency benefits, its success in promoting macroeconomic stability requires robust public financial management, transparency, and coordination between central and state governments. Future reforms should focus on building institutional capacity to harness the full potential of decentralization.

References

1. Ali, H., & Batool, M. (2017). Fiscal Decentralization and Macroeconomic Stability: Theory and Evidence from Pakistan. Pakistan Journal of Humanities and Social Sciences, 5(1), 1–14.
2. Aslim, E. G., & Neyapti, B. (2017). Optimal fiscal decentralization: Redistribution and welfare implications. Economic Modelling, 61, 224–234. https://doi.org/10.1016/j.econmod.2016.12.008
3. Davoodi, H., & Zou, H. (1998). Fiscal Decentralization and Economic Growth: A Cross-Country Study. Journal of Urban Economics, 43, 244–257. https://doi.org/10.1006/juec.1997.2042
4. Iqbal, N., & Nawaz, S. (2010). Fiscal Decentralization and Macroeconomic Stability: Theory and Evidence from Pakistan. Munich Personal RePEc Archive. http://mpra.ub.uni-muenchen.de/27184/
5. Jalil, A., Tariq, R., & Bibi, N. (2012). Fiscal decentralization and macroeconomic instability: An empirical analysis. Prague Economic Papers, 21(2), 150–165. https://doi.org/10.18267/j.pep.416
6. Jin, J., & Zou, H. (2005). Fiscal decentralization, revenue and expenditure assignments, and growth in China. Journal of Asian Economics, 16, 1047–1064. https://doi.org/10.1016/j.asieco.2005.10.006
7. Martinez-Vazquez, J., & Mc Nab, R. M. (2001). Fiscal Decentralization, Macro stability, and Growth. Proceedings of the Annual Conference on Taxation and Minutes of the Annual Meeting of the National Tax Association, 94, 42–47. https://doi.org/10.2307/41954701
8. Oates, W. E. (1993). Fiscal Decentralization and Economic Development. National Tax Journal, 46(2), 237–243.
9. Palienko, M., Lyulyov, O., & Denysenko, P. (2017). Fiscal Decentralization as a Factor of Macroeconomic Stability of the Country. Financial Markets, Institutions and Risks, 1(4), 74–86. https://doi.org/10.21272/fmir.1(4).74-86.2017
10. Prud'homme, R. (1995). The dangers of decentralization. The World Bank Research Observer, 10(2), 201–220.
11. Rao, M. G. (2003). Fiscal Decentralization in China and India: A Comparative Perspective. Asia-Pacific Development Journal, 10(1), 25–45.
12. Rauf, A., Ullah Khan, H., & Yahya Khan, G. (2021). Power Devolution and Economic Stability: Evidence from Pakistan. Journal of Asian Finance, 8(5), 573–581. https://doi.org/10.13106/jafeb.2021.vol8.no5.0573
13. Rodden, J. (2004). Comparative federalism and decentralization: On meaning and measurement. Comparative Politics, 36(4), 481–500.
14. Shah, A. (2006). Fiscal decentralization and macroeconomic management. International Tax and Public Finance, 13(4), 437–462. https://doi.org/10.1007/s10797-006-8948-1
15. Thimmaiah, G. (2013). Terms of Reference of the Fourteenth Finance Commission. Economic and Political Weekly, 48(48), 14–17.

Digital Inclusion and Access to Market: Livelihood Security in the Age of Rural E-Commerce – A Case Study of Uttar Pradesh

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ABSTRACT

This study explores the impact of digital inclusion on livelihood security among rural households in Uttar Pradesh, India, using primary data from 100 respondents across five diverse districts. Employing statistical methods including Chi-square, Pearson correlation, and multiple linear regression, the research finds that while basic digital access (internet and smartphone ownership) does not significantly influence income levels, digital skills related to livelihood activities have a positive and statistically significant effect. The analysis also reveals that digital confidence does not strongly correlate with trust in online platforms, indicating that trust may depend more on structural and contextual factors. The findings underscore the need for usability-focused digital literacy programs, localized capacity building, and trust-enhancing rural e-commerce ecosystems to ensure that digital transformation leads to inclusive economic growth.

Keywords: *Digital Inclusion, Livelihood Resilience, Digital Literacy, Rural Digitization, Digital Confidence*

INTRODUCTION

Digital inclusion has emerged as a pivotal factor in enhancing economic opportunities and livelihood security in rural India. The proliferation of affordable smartphones and data services has significantly increased internet accessibility among rural populations, enabling them to engage with digital platforms for various purposes, including commerce, education, and healthcare. Government initiatives like the Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA) have played a crucial role in this transformation, training over 6.39 crore individuals in digital literacy across rural areas as of March 2024 . These efforts have not only facilitated access to information but have also empowered rural communities to participate more actively in the digital economy. **Economic Times Government. (2024, March)**

Despite these advancements, challenges persist in ensuring equitable digital inclusion across all segments of rural society. Studies indicate that digital literacy significantly influences income

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levels among rural residents, with higher digital proficiency correlating with increased earnings . However, disparities in digital skills and access to technology continue to hinder the full realization of these benefits, particularly among marginalized groups. Addressing these gaps is essential for fostering inclusive growth and ensuring that the advantages of digitalization are equitably distributed across rural India. **(Li, Bao, & Wang, 2025)**

REVIEW OF LITERATUTRE

This literature review synthesizes empirical findings from high impact journals published between 2017 and 2025, focusing on digital inclusion, the digital economy, and rural e-commerce as catalysts for livelihood enhancement. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) method was adopted to select, screen, and analyze 25 high-impact studies across these themes.

Digital Inclusion and Rural Socioeconomic Transformation

Digital inclusion refers not only to access to digital technologies but also to meaningful engagement through digital literacy, affordability, and supportive infrastructure **(Van Deursen & van Dijk, 2019)**. A recent study by **Li et al. (2025)** highlights a strong correlation between digital economy development and rural household consumption, suggesting that digital access acts as a lever for improving livelihood conditions in rural China—paralleling trends in rural India. Similarly, **Qiang et al. (2022)** identified mobile-based interventions in Southeast Asia that resulted in a 30% rise in entrepreneurial activities among digitally connected farmers.

E-Commerce, Livelihood Security, and Market Access

E-commerce platforms have been pivotal in decentralizing market access for rural producers. According to **Zhang et al. (2020),** digital platforms in rural China led to an average income rise of 12.5% among farmers using Taobao Villages. Likewise, **Ghosh and Mukherjee (2021)** documented improved price realization and supply chain transparency among Indian farmers using Amazon Saheli and similar initiatives. These outcomes reflect the livelihood security framework which positions access to diversified markets as a core strategy for resilience.

Digital Skill Gap and Inclusive Policy Frameworks

Despite the potential, digital transformation remains uneven due to literacy barriers and infrastructural deficits. **Mittal et al. (2021)** evaluated the PMGDISHA scheme and found that only 42% of digitally trained women continued using e-services regularly. This suggests a persistent "second-level digital divide" even after access is provided **(Hargittai, 2018).** Government initiatives such as Common Service Centres (CSCs) and the Open Network for Digital Commerce (ONDC) are crucial to bridging these gaps **(Narula, 2022).**

Inter-linkages and Research Gaps

The reviewed literature converges on the view that digital inclusion enhances livelihood outcomes when paired with targeted policy frameworks and capacity building. However, limited studies contextualize this dynamic within India's most populous and digitally lagging state—Uttar Pradesh. This study addresses that gap, providing district-level data on digital usage patterns, income change, and market access in rural areas.

OBJECTIVE OF THE STUDY

1. To assess the impact of digital access and usage on perceived improvement in livelihood among rural households in selected districts of Uttar Pradesh.
2. To assess whether digital confidence influences the level of trust rural users place in online platforms

RESEARCH METHODOLOGY

This study adopts a **qualitative as well as quantitative research design** to evaluate the impact of digital inclusion on livelihood security among rural households, and to analyze how digital literacy and demographic factors influence income enhancement through rural e-commerce platforms.

Study Area and Sample Design

The research was conducted in five rural districts of Uttar Pradesh: **Allahabad (Prayagraj), Azamgarh, Jaunpur, Sitapur, and Gorakhpur**. These districts were selected purposively to represent varying levels of rural digital penetration and socio-economic diversity. A **sample size of 100 respondents** was selected using **stratified random sampling**, ensuring representation from different genders, education levels, and income categories, as per the approach used in similar rural digital studies **(Yapeng et al., 2025; Singh et al., 2020).**

Data Collection Instrument

Primary data was collected through a **structured questionnaire**, comprising both **Yes/No questions** and **5-point Likert scale items** to assess:

- Digital inclusion (access to smartphones, internet usage, digital skills)
- E-commerce participation (usage patterns, perceived benefits)
- Livelihood security (confidence in income and employment)
- Socio-demographic details (gender, education, income)

The questionnaire was pilot-tested and then administered **face-to-face** to ensure clarity and accuracy, following guidelines suggested by **Narula (2022) and Chakraborty & Pandey (2021).**

Data Analysis Techniques

Data analysis was carried out using **SPSS** The following statistical methods were applied **Descriptive statistics**, **Pearson correlation analysis** to assess the relationship between digital literacy and livelihood security, **Multiple linear regression** to test the predictive value of digital inclusion and e-commerce usage on livelihood outcomes, **Chi-square test** to explore associations between demographic factors and income enhancement.

This methodology enables the study to identify **causal linkages** and **statistical significance** of digital inclusion initiatives in shaping rural livelihood patterns, as supported in prior ICT studies **(Hilbert, 2016; Mittal et al., 2021; TRAI, 2023).**

DATA ANALYSIS

HYPOTHESIS TESTING

Hypothesis 1

1. **Hypothesis 1 (H_0):** There is a significant association between digital access (smartphone ownership and internet use) and perceived improvement in livelihood among rural respondents.

Table 1. Association between Increased Income and Digital Access (Chi-Square Test Results)

Digital Access Variable	Chi-Square (χ^2)	df	Asymp. Sig. (p-value)	Significant ($p < 0.05$)	Interpretation
Internet Access	0.895	1	0.344	No	No significant association between internet access and increased income
Smartphone Access	0.003	1	0.954	No	No significant association between smartphone access and increased income
Combined Digital Access (Internet + Smartphone)	1.470	1	0.225	No	No significant association between combined digital access and increased income

INTERPRETATION: The analysis reveals **no statistically significant relationship** between digital access and increased income among rural respondents in Uttar Pradesh. Individually, neither **internet access** (p = 0.344) nor **smartphone access** (p = 0.954) is significantly associated with higher income levels. Even when combined into a **composite digital access variable**, the result remains insignificant (p = 0.225).

In all three cases, the p-values are well above the 0.05 threshold, confirming that the observed associations are **not statistically significant**.

This suggests that **mere access to digital tools does not guarantee economic benefit**. Other factors such as digital literacy, infrastructure, market readiness, and socio-economic barriers likely mediate the impact of digital inclusion on livelihoods.

Hypothesis 2 (H€): There is no significant relationship between digital confidence and trust in online platforms.

Table 2: Correlation Between Digital Confidence and Trust in Online Platforms

Variable	Mean	Standard Deviation	Pearson Correlation (r)	Sig. (2-tailed)	N	Interpretation
Digital Confidence	3.06	1.448				Moderate digital self-perception
Trust in Online Platforms	2.94	1.489	**–0.092**	**0.363**	100	Weak negative, not statistically significant

INTERPRETATION:A Pearson correlation analysis was conducted to examine the relationship between **Digital Confidence** and **Trust in Online Platforms** among rural respondents (N = 100). The results revealed a **very weak negative correlation** (r = –0.092, p = 0.363), which was **not statistically significant** at the 0.05 level.

This finding suggests that **higher digital confidence does not necessarily translate into greater trust in online market platforms**. The lack of a significant relationship implies that **other mediating factors**—such as digital literacy, cybersecurity concerns, prior experience, or infrastructural reliability—might influence trust in e-commerce platforms more directly than self-assessed confidence alone.

MULTIPLE LINEAR REGRESSION ANALYSIS: PREDICTING INCOME THROUGH DIGITAL INCLUSION VARIABLES

Table 3: Multiple Linear Regression Results for Increased Income

Predictor Variable	Unstandardized Coefficient (B)	*p*-value (Sig.)
(Constant)	1.349	0.000
Digital Confidence (Digiconf1)	0.012	0.720
Digital Skills & Livelihood	0.099	0.005
Awareness (Awarness1)	-0.147	0.171

Interpretation of Regression Model

The regression model is statistically significant overall ($F = 3.323$, $p = 0.023$), indicating that the included predictors jointly explain a significant portion of the variance in increased income among rural respondents. The model accounts for **9.4%** of the variability in the dependent variable ($R^2 = 0.094$).

Among the predictors, only **Digital Skills and Livelihood** is a statistically significant contributor ($\beta = 0.286$, $p = 0.005$). This implies that individuals with higher digital skills related to livelihood are more likely to report increased income. Other variables — **Digital Confidence** ($p = 0.720$) and **Awareness** ($p = 0.171$) — were not statistically significant in this model.

Model Equation

Let:

- **Y** = Increased Income (Dependent Variable)
- **X** = Digital Confidence (Digiconf1)
- **X,** = Digital Skills and Livelihood
- **X*f*** = Awareness (Awarness1)

Regression Equation (based on unstandardized coefficients)

Increased Income (Y)=1.349+0.012X_1+0.099X_2"0.147X_3

SUGGESTIONS AND POLICY RECOMMENDATIONS

1. **Promote Skill-Based Digital Literacy**
2. Government programs like **PMGDISHA** and **Common Service Centres (CSCs)** must shift from access-centric to **usability-centric models**(Hans on training)

3. To build **trustworthy rural e-commerce ecosystems**—including better grievance redressal, transaction transparency, and local language interfaces

CONCLUSION

This study reveals that while digital access alone does not significantly impact rural income, **digital skills tailored to livelihood activities** play a crucial role in fostering economic upliftment. Digital confidence, although important, does not independently enhance trust in e-commerce platforms. These findings suggest that rural digital transformation must move beyond infrastructure provision to focus on **capacity building, trust reinforcement, and skill-based interventions**. Strengthening the usability of digital tools and aligning digital training with market opportunities are essential for sustainable rural livelihood enhancement in Uttar Pradesh.

REFERENCES

1. Economic Times Government. (2024, March). *6.39 crore people in rural India trained in digital literacy: Centre*. Retrieved from https://government.economictimes.indiatimes.com/news/digital-india/6-39-crore-people-in-rural-india-trained-in-digital-literacy-centre/115996684
2. Li, Y., Bao, Y., & Wang, Y. (2025). Study on the relationship between digital inclusion, the level of the digital economy and rural household consumption. *Sustainability, 17*(6), 2405. https://doi.org/10.3390/su17062405
3. van Deursen, A. J. A. M., & van Dijk, J. A. G. M. (2019). The first-level digital divide shifts from inequalities in physical access to inequalities in material access. *New Media & Society, 21*(2), 354–375. https://doi.org/10.1177/1461444818797082 — Sage Journals https://journals.sagepub.com
4. Li, Y., Bao, Y., & Wang, Y. (2025). Study on the relationship between digital inclusion, the level of the digital economy and rural household consumption. *Sustainability, 17*(6), 2405. https://doi.org/10.3390/su17062405 — MDPI https://www.mdpi.com
5. Qiang, C. Z.-W., Kuek, S. C., Dymond, A., & Esselaar, S. (2022). Mobile applications for agriculture and rural development. *World Bank Policy Research Working Paper No. 8652*. https://doi.org/10.1596/1813-9450-8652 — World Bank https://www.worldbank.org
6. Zhang, Y., Li, J., & Wang, L. (2020). The effect of e-commerce on rural income: Evidence from China's Taobao Villages. *China Economic Review, 61*, 101421. https://doi.org/10.1016/j.chieco.2020.101421 — Elsevier https://www.journals.elsevier.com/china-economic-review
7. Ghosh, A., & Mukherjee, S. (2021). The impact of digital platforms on agricultural marketing: Evidence from Indian e-commerce. *International Journal of Rural Management, 17*(2), 145–162. https://doi.org/10.1177/09730052211014937 — Sage Publications https://journals.sagepub.com
8. Ellis, F. (2000). *Rural livelihoods and diversity in developing countries*. Oxford University Press. https://global.oup.com
9. Mittal, M., Singh, R., & Kumari, A. (2021). Evaluating DISHA's impact on rural women's digital capacity. *UNDP Working Paper Series*. United Nations Development Programme. https://www.undp.org
10. Hargittai, E. (2018). Potential biases in the digital research pipeline. *Social Science Computer Review, 36*(6), 748–755. https://doi.org/10.1177/0894439316669634 — Sage Journals https://journals.sagepub.com
11. Narula, R. (2022). Inclusive e-commerce through ONDC: A digital development roadmap. *Economic and Political Weekly, 57*(4), 44–50. https://www.epw.in
12. Yapeng, L., Bao, Y., & Wang, Y. (2025). Study on the relationship between digital inclusion, the level of the digital economy and rural household consumption. *Sustainability*, 17(6), 2405. https://doi.org/10.3390/su17062405. Retrieved from www.mdpi.com
13. Narula, R. (2022). Inclusive e-commerce through ONDC. *Economic & Political Weekly*, 57(42), 12–18. Retrieved from www.epw.in
14. Chakraborty, S., & Pandey, A. (2021). Empowering SHGs through e-commerce. *Journal of Rural Innovation*, 8(2), 45–60. Retrieved from www.jri.org.in
15. Hilbert, M. (2016). The bad news is that the digital access divide is here to stay: Domestically installed bandwidths among 172 countries. *Telecommunications Policy*, 40(6), 567–581. https://doi.org/10.1016/j.telpol.2016.01.006. Retrieved from www.sciencedirect.com
16. TRAI. (2023). Digital connectivity report. *Telecom Regulatory Authority of India*. Retrieved from www.trai.gov.in

XV Finance Commissions and the Issue of Horizontal Equity: A Critical Evaluation

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ABSTRACT

This paper examines the recommendations of the Fourteenth and Fifteenth Finance Commissions of India from the perspective of horizontal equity over a decade. It analyzes the changes in aggregate transfers, the evolution of devolution criteria, and their impact on inter-state disparities. The study reveals a deceleration in the growth of aggregate transfers in the Fifteenth Finance Commission compared to the Fourteenth. While both commissions prioritized equity through the income distance criterion, the Fifteenth Finance Commission reduced its weightage and introduced new criteria like demographic performance and tax effort, aiming to balance equity with efficiency. This shift in focus resulted in middle-income states experiencing the most significant losses in their share of central transfers, while high-income states witnessed gains. Although low-income states continued to receive the largest share of total devolution, the progressivity of transfers, as indicated by the rank correlation between per capita GSDP and per capita transfers, decreased from -0.80 in the Fourteenth Finance Commission to -0.64 in the Fifteenth. This suggests that the Fifteenth Finance Commission's recommendations were less progressive in reducing inter-state income disparities. The analysis of per capita transfers further highlights the varying benefits received by states within each income category. The study concludes that while the Fourteenth Finance Commission's devolution was highly equitable, the Fifteenth Finance Commission witnessed a decline in progressivity, necessitating a re-evaluation of the devolution criteria to ensure a more equitable distribution of resources among states and address persistent inter-state imbalances in the Indian federation.

Key Words: *Vertical Transfers, Horizontal Equity, Devolutions, Progressivity, Efficiency Criteria.*

Introduction

India is a country where large scale inter-states imbalances exist.This is either due to non-availability of infrastructural facilities and differential factor endowments, inherent concentration of development in some regions or due to increasing centralisation of revenue and increasing decentralization of responsibilities which is rooted in the structure of its federation (Rao, 2002).

This further gets aggravated due to the existing gaps between the needs of expenditure and the availability of revenue of the states of Indian Federation. To offset fiscal disadvantages resulting

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from regional imbalances, a federal democracy requires institutional arrangement to channelise flow of funds from the centre to the states in an orderly and even handed manner. The Indian Constitution has not only provided the channels through which resources can flow from the Union to the States, but also provided for a machinery in the form of the Finance Commission for recommending the flow of resources. Thus, the Finance Commissions from time to time makes recommendations to the Central Government for sharing of taxes and duties and grants-in-aid. Finance Commissions are appointed for a period of five years under Article 280 to quantify the shares in the shareable taxes under Article 270 of the Union Government on the one hand and formulate the principles governing grant-in-aid under Article 275 on the other hand. Finance Commission adjudicates on the sharing of revenue between center and the states and their *inter-se* allocation among states in a fair and transparent manner. The first task is referred to as Vertical distribution and the other as Horizontal distribution. Accordingly, successive Commissions considered it their duty to contribute towards reducing Horizontal imbalance or inter-state disparities. In this line there have been Fifteen Finance Commission so far (Thimmiah and H. Rao 1986).

In line with this, the current paper examines the recommendations of last two Finance Commissions from the perspective of horizontal equity over the span of a decade. The chapter is divided into six sections besides the introduction. Section II deals with the distribution criteria adopted by two Finance Commissions and their impact on transfers. Section III examines the recommendations of Fifteenth Finance Commission and its impact on inter-state equity. Section IV evaluates the impact of transfers made over the span of last two Finance commission and the progressivity analysis. Section V presents the conclusion of the chapter.

Changes in Aggregate Transfers

Table 1 shows a continuous deceleration in the growth percentage of aggregate transfers during last two Finance commission awards. There is an increase witnessed in XIVth Finance commission but there is a drastic deceleration in growth witnessed in the XVth. Increase XIVth Finance commission was 162.8 percent but it is only of only 40.8 percent in XVth Finance Commission. Taking into account the inflation the increase in devolution is too meagre.

Table 1: Aggregate Resource Transfer Under Finance Commission Awards

Finance Commission Period	Amount	Percentage Increase
XIV Finance Commission	4485541	162.8
XV Finance Commisson I	1056199	-76.5
XV Finance Commisson II	5257822	17.2
XV Finance Commisson Aggregate)	6314021	40.8

Source: Calculated from Reports of various Finance Commissions

Devolution Criteria Adopted by Different Finance Commissions

Table 2 gives the list of the different criteria and the weights assigned to them by last two Finance Commissions. The criteria of population, area adjusted and forest cover is related with

"need and cost disabilities". "Equity" criteria is represented by Income distance and fiscal capacity distance indicators. "Performance" criteria is indicated by tax efforts, fiscal discipline and demographic performance.(Singh, A.K., 2008).

Equity criteria is dominant amongst all the criteria in which income distance holds the highest weight in XIVth and XVth Finance commission followed meaning there by greater horizontal devolutions to backward states. But in the XVth Finance commission the weight assigned to the equity indicator has been decreased from 50 percent in XIV Finance Commission to 45 percent in XV Finance Commission affecting the devolution to the low income states. Though Population (2011) has been given a weight of 15 percentand that of forest cover raised to 10 percent addressing to the need based criteria but demographic performance criteria introduced in the XVth Finance commission with weight of 12.5 percent will affect the devolution in the similar manner as in XIIIth Finance Commission the criteria of fiscal discipline did. The better performing states will benefit and the benefits will accrue to high and middle income states leaving the low income states behind.

Analysis of Criterias

Shift in Focus: Compared to the 14th Finance Commission, the XVFC reduced the weightage of income distance (from 50% to 45%) which will reduce the devolution to states in bringing about equity, instead it introduced demographic performance and tax effort as new criteria. The weightage of the population criterion shifted from the 1971 census (17.5% in the 14th FC) to the 2011 census (15%) in the 15th FC.The better performing states will benefit and the benefits will accrue to high and middle income states leaving the low income states behind. The objective is balancing equity and efficiency. The criteria reflect an attempt to balance the need for equity among states (through income distance) with considerations for efficiency (tax effort), demographic management, and environmental stewardship.

15th Finance Commission's criteria for devolution represent a nuanced approach to distributing central resources among states, considering various factors beyond just income and population. The inclusion of demographic performance and tax effort aimed to incentivize better governance and fiscal management among the states.

While both the 14th and 15th Finance Commissions aimed to address horizontal equity, they adopted different approaches and criteria, making it difficult to definitively say one was "better" than the other in all aspects.

Comparing their impact on Horizontal Equity

Addressing Income Disparities: Both Commissions gave the highest weightage to "Income Distance," aiming to provide more resources to states with lower per capita incomes, thus promoting equity. The 14th Finance Commission gave it a slightly higher weight of 50% as against 45% weight given by the 15th Finance Commission.

Population as a Factor: The shift to the 2011 Census by the 15th FC was intended to reflect the current population needs of states more accurately. However, the inclusion of "Demographic Performance" with a significant weightage partially offset this by rewarding states with lower fertility rates, which are often the more developed southern states. This aspect of the 15thFinance Commission's formula has been a subject of debate regarding its impact on equity.

Incentivizing Fiscal Behavior: The 15th Finance Commission's introduction of "Tax and Fiscal Efforts" was a step towards promoting fiscal responsibility among states. This could indirectly contribute to horizontal equity in the long run by encouraging all states to strengthen their financial positions. The 14thFinance Commission did not explicitly include such a criterion.

Balancing Different Needs: The inclusion of criteria like "Area" and "Forest & Ecology" (in both Commissions, albeit with slightly different definitions and weights) acknowledges the specific needs and challenges of states with larger geographical areas or significant forest cover, contributing to a more nuanced understanding of equity beyond just income.

It's challenging to definitively state that the 14th Finance Commission was unequivocally "better" than the 15th in meeting horizontal equity.

The 14thFinance Commission had a stronger emphasis on addressing income disparities through a higher weight for income distance and used a mix of older and newer demographic data.

The 15thFinance Commission brought in more recent demographic data and introduced incentives for demographic performance and tax efforts, which could have long-term implications for equity but also sparked debates about fairness to different types of states.

Both Commissions made efforts to distribute resources more equitably among states, but they employed different mechanisms to achieve this goal.

Table 2: Distribution Criteria and Relative Weights for Determining Inter se Shares

	Criteria	FC-XIV (2015-20)	FC-XV (2021-26)
Need and cost disabilities	Population (1971)	17.5	--
	Population (2011)	10	15
	Area adjusted	15	15
	Forest cover	7.5	10
Equity	Income distance	50	45
Performance	Tax efforts	--	2.5
	Demographic Performance	--	12.5
		100	100

Source: Compiled from Reports of Finance Commissions.

Thus, so far the Finance Commissions have not been able to find out a satisfactory devolution formula and every Finance commission has been making changes in the criteria of allocation and their weights in an arbitrary manner. Inappropriate selection of criteria adopted for resource transfers by the Finance Commissions is one of the reasons for the persistence of inter-state disparity (Sinha, 1986; Kumar, 2005).

Table 3: Change in Shares of States due to Change in Formula between XIV and XV Finance Commission Awards

States	XIV FC Share	XV FC Share	Gain/ Loss
High income states			
Gujarat	3.08	3.47	0.39
Maharashtra	5.52	6.02	0.50
Punjab	1.58	1.81	0.23
Haryana	1.08	1.09	0.01
Middle income states			
Andhra Pradesh	4.31	4.05	-0.26
Karnataka	4.71	3.65	-1.07
Kerala	2.5	1.93	-0.58
Tamil Nadu	4.02	4.08	0.06
West Bengal	7.32	7.52	0.2
Low income states			
Bihar	9.67	10.06	0.39
M.P.	7.55	7.85	0.30
Orissa	4.64	4.53	-0.11
Rajasthan	5.5	6.03	0.53
Uttar Pradesh	17.96	17.94	-0.02
Uttarakhand	1.05	1.12	0.07
Jharkhand	3.14	3.38	0.17
Chhatisgarh	3.08	2.81	-0.27

Source: From XV Finance Commission Report

Table 3depicts the change in the shares of States due to change in the weights of different criteria allotted during Fourteenth and Fifteenth Finance Commissions. It appears that as compared to Fourteenth Finance Commission award the progressivity has reduced in Fifteenth Finance Commission award. The major looser are the middle income States followed by the low income states, while high income States have stood to gain.

Equity in Aggregate Transfers

Table 4: Share of States in Total Devolution by Finance Commission (%)

States	XIV FC	XV FC
High income states	**11.266**	**12.404**
Gujarat	3.08	3.48
Maharashtra	5.52	6.03
Punjab	1.58	1.81
Haryana	1.08	1.09
Middle income states	**22.865**	**21.221**
Andhra Pradesh	4.31	4.05
Karnataka	4.71	3.65
Kerala	2.50	1.93
Tamil Nadu	4.02	4.08
West Bengal	7.32	7.52
Low income states	**52.58**	**53.636**
Bihar	9.67	10.06
M.P.	7.55	7.85
Orissa	4.64	4.53
Rajasthan	5.50	6.03
Uttar Pradesh	17.96	17.94
Uttarakhand	1.05	1.12
Jharkhand	3.14	3.31
Chhatisgarh	3.08	2.81

Notes: Figures of Andhra Pradesh includes Telangana.

Source: incorporated from various Finance Commission reports.

Table 4 highlights the percentage share of states in statutory transfers. The inter-state distribution of central resources under the Finance Commission awards reveal that the transfers are more in favor of lower income states reflecting progressivity in devolution pattern. In case of total transfers the share of low income states was more than 52 percent and there is slight rise in the share of low income states in XV Finance Commission while for high income states it is 11.3 percent to 12.4 percent where again the high income states stood to gain in XV Finance Commission awards. The middle income states showed a fall in the share from 23 percent approximately to 21.2 percent showing to a decline in equity objective.As performance criteria hold more weightage this time the high income states and the middle income states have also managed to gain from the devolution

Per Capita Transfers

Table 6: Per Capita Total Transfers by Finance Commission in Rupees

States	XIV FC	XV FC
High income states	**27165**	**38866**
Gujarat	27710	36831
Maharashtra	26843	36264
Punjab	30461	52321
Haryana	23646	30047
Middle income states	**35183**	**40127**
Andhra Pradesh	28227	31254
Karnataka	39343	37748
Kerala	38597	45648
Tamil Nadu	29512	35447
West Bengal	40233	50539
Low income states	**48101**	**60889**
Bihar	47121	55669
Madhya Pradesh	53200	63668
Orissa	56225	63588
Rajasthan	39821	52326
Uttar Pradesh	45647	51818
Uttarakhand	32171	64175
Jharkhand	49229	59123
Chhatisgarh	61392	76747
Coefficient of Variation	**28.76**	**27.18**

Notes: Figures of Andhra Pradesh includes Telangana.
Source: 1. Calculated from various Finance Commission reports.
2. Population figures are from Census 2011

Per capita transfers to the poor states have been higher as compared to middle and the high-income states in all Finance Commissions' awards. In case of Fourteenth Finance Commission this difference in the per capita transfers between the different category states was prominent and in Fifteenth Finance Commission the per capita transfers to low income state is very significant but for the other category states the difference is marginal.

Thus the low income states are getting consistently greatest in per capita transfers. It is now of the order of Rupees 38866 for high income states, rupees 40127 for middle income states and Rupees 60889 for low income states. The imbalance in per capita transfers to low-income states was reduced by the respective XIII and XIV Finance Commission recommendations. This is indicated by the increase in the coefficient of variation to 26.11 percent, 28.76 percent but the imbalance in transfers has again increased witnessed by the fall in coefficient of variation value to 27.18 percent in case of Fifteenth Commission (Table 6).

There is a need of further fine-tuning of the inter se transfers to states among each income category. Per capita transfers recommended by the Fifteenth Finance Commission among high income category varies between Rs 30047 (Haryana) to Rs 52321 (Punjab), among middle-income states per capita transfer varies from Rs. for 31254 Andhra Pradesh to Rs. 52321 to West Bengal. Among poor income states Uttar Pradesh got the least only Rs. 51818 per capita transfers as compared to Rs. 76747 given to Chhattisgarh, which stood highest amongst the low income states.

Progressivity Analysis

Progressivity is an important aspect of the Finance Commission interstate devolutions. Maintaining Horizontal Equity is one of the objectives of federal transfers to bridge the differences in fiscal capacities, needs and cost disabilities of the states (Kishan P.K.V., Singh Pavneet(2021).

Table 8 :Rank Correlation of Average Per Capita GSDP and Per Capita Horizontal share of States

Finance Commission Period	Coefficient of Correlation
	Per capita total devolution
XIV Finance Commission 2015-2020	-0.80
XV Finance Commission 2021-2026	-0.64

Source:1. Calculated from various Finance Commission reports.

2. Per Capita GSDP is the average of three years which has been considered by respective Finance Commission

Rao and Jena (2005), Pandey Gunjan(2008) have examined the relationship between per capita transfers and per capita GSDP from IX to XII Finance commission. Table 8 is a revisit to the last three most recent Finance Commission devolutions to analyze horizontal equity. The negative sign indicates that with the increase in per capita income there is a decline in per capita transfers.

Conclusion

The conclusion drawn from the analysis is that the Finance Commission devolution in Fourteenth have been highly equitable. The tax devolution correlation value derived are very significant and equal of -0.81 but in the Fifteenth Finance commission total transfers have been once again less progressive. The grants to states have been the cause of loss in progressivity. A revisit to the different criteria of recommendation is required to be done.

References

1. Ashish Publishing House, New Delhi.
2. Census of India 2011
3. Krishna P.K.V, Singh Pavneet (2021), "Horizontal Devolution: Have the finance commissions delivered?,*Science Direct* , www.elsivier.com/locate/iimb
4. Kumar, Ravi T. (2005), "Tax Devolution and Regional Disparities", *Economic and Political Weekly*, May 14.
5. PandeyGunjan (2008), "Federal Transfers and Horizontal Equity: Issues and Trends", in A.K.Singh (ed) Twelfth Finance Commission Recommendations and their implications for the states, APH Publishing Corporation, New Delhi.
6. Rao, M. Govinda (2002). "State Finances in India: Issues and Challenges",*Economic and Political Weekly*, Vol.37, August 3.
7. Rao, M.G. and Pratap R. Jena (2005), "Balancing Stability, Equity and Efficiency," *Economic and Political Weekly*, July 30.
8. Reports of the Fourteenth and Fifteenth Finance Commission.
9. Singh, A.K. (2008), Finance Commission Devolutions and Regional Imbalances in India, in A.K.Singh (ed) Twelfth Finance Commission Recommendations and their implications for the states, APH Publishing Corporation, New Delhi.
10. Sinha, R.K. (1986), Center-State Fiscal Relations In India: Various Aspects, Irritants, *Framework for Action,* Deep And Deep Publications, New Delhi.
11. Thimmiah and H. Rao (1986), *Finance Commission and Centre State Financial Relations*,

Impact of Fiscal Consolidation on Economic Growth in Uttar Pradesh

Mansi Verma[1], & Dr. Gunjan Pandey[2]

ABSTRACT

Fiscal consolidation refers to efforts aimed at reducing the fiscal deficit and controlling public debts, typically through a combination of increased revenue generation and expenditure control.

Fiscal consolidation in Uttar Pradesh has been a key policy since mid 2000s as the state grappled with high fiscal deficit, mounting public debts and limited fiscal space to fund critical development projects.

This study examines the composition of fiscal consolidation in Uttar Pradesh from 2005 to 2024 focusing on the revenue and expenditure measures adopted by the state to achieve fiscal discipline while fostering economic growth. The analysis explore changes in tax policies, public sector expenditure and subsidy adjustment, which have shaped the fiscal landscape of the state over the past two decades.

The second part of the study assesses the impact of these fiscal consolidation measures on economic growth using state gross domestic product (GSDP) at current prices as the primary growth indicator. This research employs descriptive data analysis and bivariate correlation matrix to explore the relationship between fiscal variables such as fiscal deficit, revenue generation, public debt, expenditure and economic growth. This research underscores the need for a balanced approach to fiscal prudence for long term stable economic growth.

Key Words :- *Fiscal Consolidation, Economic Growth, Fiscal Deficit, Bivariate correlation matrix.*

INTRODUCTION

The 13th Finance Commission was tasked with suggesting a fiscal consolidation program for both central and state governments to implement. Fiscal consolidation serves as an essential policy strategy designed to enhance a government's financial position by decreasing fiscal deficits and managing public debt. In developing areas like Uttar Pradesh, fiscal consolidation is not only about managing public financial resources but also plays a significant role in fostering sustainable economic development. As one of the largest and most populated states in India, Uttar Pradesh encounters distinct fiscal obstacles. The state's economy heavily depends on agriculture, has limited industrial diversification, and primarily consists of a rural population.

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Moreover, financial situation of Uttar Pradesh has been challenged by limited revenue generation, substantial spending on social sectors, and fiscal imbalances that obstruct its long-term growth potential. For Uttar Pradesh, achieving fiscal consolidation isn't solely about deficit reduction; it also entails realigning spending priorities, enhancing the efficiency of the public sector, and creating a favorable environment for private investment. The state's fiscal strategies, particularly regarding public debt management, tax reforms, and controlling expenditures, have the capacity to make a significant impact on economic outcomes like growth rates, infrastructure development, and job creation. Considering the state's historical reliance on transfers from the central government, fiscal discipline at the state level is essential for decreasing reliance on outside funding sources and fostering a stronger, more self-sufficient economy..

Advocates of fiscal consolidations argues that reducing government deficits can lead to lower interest rates improved credit rating and greater fiscal sustainability potentially fostering a more favorable macroeconomic environment **(Giavazzi & pagno, 1990)**. In contrast critics asserts that austerity measures which frequently accompany fiscal consolidation can hides economic activity reduced aggregate demand, increase unemployment and adversely affect public investment, particularly in times of economic downturns **(Romar and Romar 2010)**. The mixed evidences regarding the impact of fiscal consolidations on economic growth underscores the need for further analysis of its varying effects across different context.

This paper seeks to explore the impact of fiscal consolidation on economic growth by examining both theoretical frameworks and empirical studies. Specifically, it aims to analyze how different fiscal measures, such as tax hikes and government expenditure cuts, affect economic performance in both short-term and long-term horizons. By synthesizing key findings from previous research, the study will provide a comprehensive understanding of the potential trade-offs involved in implementing fiscal consolidation strategies and offer insights into how these policies can be designed to foster sustainable growth without undermining economic recovery.

LITERATURE REVIEW

The relationship between fiscal consolidation and economic growth has been a subject of extensive research, with varying perspectives depending on the context of the country or region under study. Scholars have explored how fiscal discipline, often achieved through reducing budget deficits and controlling public debt, can both promote and hinder economic growth. The literature on this topic can be broadly divided into three main themes: the general theory of fiscal consolidation and economic growth, empirical studies focusing on India, and studies specific to Uttar Pradesh.

Fiscal Consolidation and Economic Growth: Theoretical Perspectives

The theoretical foundation for understanding the link between fiscal consolidation and economic growth lies in the broader literature on public finance and economic development. In classical perspectives, fiscal consolidation is typically linked to the decrease of deficits and public debt, which can improve economic stability and foster a more favorable growth environment **(Alesina & Ardagna, 2010)**. Advocates of fiscal consolidation contend that reducing public debt minimizes the crowding-out effect on private investment, potentially resulting in increased economic growth. A better fiscal balance may also enhance investor confidence, decrease interest rates, and improve

the efficacy of monetary policy. Conversely, opponents of fiscal consolidation point out the possible adverse effects on economic growth, especially in the short term. According to Keynesian theory, implementing austerity measures for fiscal consolidation can result in decreased public expenditure, which may dampen demand in the economy, particularly during times of economic downturn **(Blanchard & Leigh, 2013)**. If fiscal consolidation approaches include reductions in vital public services such as education, healthcare, and infrastructure, the economy's long-term growth potential might be jeopardized. Therefore, the effects of fiscal consolidation on economic growth are not always clear-cut, and specific contextual factors are essential to consider..

Empirical Studies on Fiscal Consolidation in India

In the context of India, numerous studies have explored how fiscal policy affects economic growth. A consistent outcome in many of these studies is that fiscal consolidation has been essential for stabilizing the Indian economy and ensuring a balanced fiscal structure. For instance, **Buiter (2004)** analyzes India's fiscal policy and concludes that achieving fiscal consolidation has contributed to improved macroeconomic stability and created a favorable environment for economic growth. Nevertheless, the Indian experience also reveals the difficulties associated with harmonizing fiscal consolidation with developmental objectives. **Gupta (2002)** notes that India's fiscal consolidation during the 1990s, propelled by fiscal reforms, played a vital role in restoring macroeconomic stability, but also led to decreased public spending on social sectors such as education and healthcare. This dilemma between fiscal consolidation and social spending has been a contentious issue in many policy discussions, with critics contending that an excessive focus on reducing deficits can hinder poverty alleviation and long-term human capital growth.

Fiscal Consolidation in Uttar Pradesh: Challenges and Opportunities

When looking into fiscal consolidation within Uttar Pradesh, research points out the distinct challenges the state faces in maintaining its fiscal stability. As one of India's largest and most populous regions, Uttar Pradesh has encountered substantial fiscal deficits, increasing public debt, and a significant portion of the population relying on government welfare programs. A study by the **Reserve Bank of India (2016)** reveals that Uttar Pradesh has struggled to balance its fiscal budget due to ongoing revenue shortages and the necessity for heightened public spending in social sectors. Research conducted by **Sharma (2011)** examines fiscal landscape of Uttar Pradesh, indicating that the state's dependence on central transfers and its comparatively low tax-to-GDP ratio have worsened its financial issues. Even with initiatives aimed at fiscal consolidation, like boosting tax revenues and minimizing unnecessary expenditures, Uttar Pradesh has found it challenging to maintain fiscal discipline without compromising essential public services. Consequently, fiscal consolidation efforts have frequently resulted in cuts to social spending, impeding the state's potential for long-term economic growth. Additionally, some research **(Singh & Singh, 2015)** indicates that the lack of industrial diversification in Uttar Pradesh and its reliance on agriculture have intensified its fiscal difficulties. The state's economic framework demands a careful equilibrium between fiscal consolidation and public investment in agriculture, infrastructure, and human capital, all of which are vital for sustainable growth.

OBJECTIVE OF STUDY

- To study the impact of fiscal and economic variables on fiscal consolidations.
- To recommend the policy intervention to improve the status of fiscal consolidations.

DATA DISCRIPTION AND DISCRIPTIVE ANALYSIS

Data

The study will be employing time series data for a set of variables covering the period from 2005-06 to 2023-24. This paper will be analyzing two alternative aspect fiscal stance of Uttar Pradesh and its possible impact on economic growth , first will be from descriptive statistics and second will be from correlation analysis. The data has been taken from RBI (handbook of statistics on Indian States).

A positive change in the taken variables will be consider as expansionary fiscal policy where as a negative change will be consider as fiscal tightening.

Variable	N	Mean (%)	Std. Deviation	Variance
GSDP(curr. Pri.)	18	12.90	5.48	30.08
per capita NSDP	18	11.18	5.89	34.67
Capital Expenditure	18	18.75	27.29	744.75
Own Tax Revenue	18	16.23	10.86	118.00
Own Non Tax Revenue	18	29.07	60.85	3703.22
Interest Payment	18	10.09	5.66	32.04
Social Sector Expenditure	18	16.15	11.12	123.68
Gross Fiscal Deficit	18	-24.53	151.00	22802.30

Source: Authors' calculation

Note: The descriptive statistics is for the data period cover from 2005-06 to 2023-24.

The descriptive statistics based on annual growth rates for fiscal variables of Uttar Pradesh reveal a picture of fiscal consolidation. The Gross Fiscal Deficit (GFD) shows a notable average contraction of –24.53%, suggesting a clear intent toward fiscal tightening. However, the extremely high standard deviation of 151.00 highlights inconsistency in deficit reduction efforts, likely driven by fluctuations in both revenue receipts and spending obligations. Encouragingly, Own Tax Revenue recorded a stable average growth of 16.23%, reflecting improvements in the state's tax mobilization capacity—an essential pillar of sustainable consolidation. Conversely, while Own Non-Tax Revenue grew rapidly at 29.07%, its high volatility (SD = 60.85) underscores its unreliability as a consistent fiscal support. On the expenditure front, Capital Expenditure grew at a robust 18.75% and Social Sector Expenditure at 16.15%, both signaling the state's commitment to productive and inclusive spending even amid deficit control. However, Interest Payments also exhibited a steady rise (10.09%), pointing to persistent debt servicing pressure. Overall, the data reflects a strategic, yet uneven pattern of fiscal consolidation, where the state appears to balance growth and welfare priorities while attempting to moderate its deficits.

Fiscal stance and Gross State Domestic Product (Current Prices): Bivariate Analysis

The simple correlation gives an interesting insights about the association between fiscal parameter in relation with economic growth.

The correlation analysis, viewed through a broader fiscal consolidation lens, reveals several key dimensions of fiscal architecture in Uttar Pradesh. Firstly, the strong correlation between GSDP (current) and Own Tax Revenue (r = 0.975) underscores a structurally improving tax base an essential pillar of revenue-led fiscal consolidation. This suggests the state is not merely cutting deficits through expenditure restraint but is actively enhancing its revenue capacity in line with economic growth.

Variable	GSDP(curr. prices) (N = 19)
GSDP(curr. prices)	1.000
Per Capita NSDP	0.998
Capital Expenditure	0.947
Interest Payment	0.991
Own Tax Revenue	0.975
Own non- tax Revenue	0.413
Social Sector Expenditure	0.985
Gross Fiscal Deficit	0.701
GSDP Growth Rate	-0.271

Source:- Authors calculations

Note: This table presents correlation coefficients of key fiscal indicators in Uttar Pradesh with GSDP (current absolute values).

Secondly, the data demonstrates that productive expenditures like Capital Expenditure (r = 0.947) and Social Sector Expenditure (r = 0.985) maintain strong alignment with overall economic expansion, which is critical for growth-friendly fiscal consolidation. This reflects a conscious effort to safeguard developmental spending even while pursuing fiscal discipline. Maintaining these expenditures ensures that consolidation does not compromise future growth potential or equity outcomes, aligning with the principle of quality-adjusted consolidation.

Third, the moderate correlation between GSDP (current) and Gross Fiscal Deficit (r = 0.701) suggests that deficits are not because of cyclical revenues or expenditures, but potentially by structural commitments or lumpy capital investments. Furthermore, the high correlation of Interest Payments with GSDP (r = 0.991) points to a growing debt servicing burden as the economy scales. While not inherently negative, it underlines the importance of sustainable borrowing frameworks within the consolidation strategy.

Finally, the relatively erratic performance of Own Non-Tax Revenue (r = 0.413) with low correlation to GSDP suggests a need to diversify and stabilize non-tax sources, especially as reliance on these fluctuating revenues could weaken consolidation gains during downturns. Overall, the

correlation matrix supports the view that fiscal consolidation of Uttar Pradesh is structurally driven, growth-aligned, and cautiously balanced, but it also reveals areas such as revenue elasticity and non-tax volatility where deeper fiscal reforms could enhance resilience and sustainability.

POLICY IMPLICATION

- **Enhance and Broaden Tax Collection**: As tax revenue rises with economic growth, the government should concentrate on more effective tax collection by minimizing tax evasion and incorporating a greater number of individuals and businesses into the tax framework.
- **Secure More Consistent Non-Tax Revenue**: Earnings from sources such as fees, fines, and royalties are increasing rapidly, yet they fluctuate significantly each year. The state needs to establish reliable sources of non-tax revenue and manage them more effectively to ensure they can be relied upon in the budget.
- **Keep Investing in Development**: Expenditures on infrastructure, health, and education. Even while aiming to lower the deficit, the state should maintain these essential investments.
- **Stabilize the Deficit More Effectively**: Although the fiscal deficit has decreased on the whole, it varies significantly from year to year. The government ought to improve its financial planning to prevent drastic fluctuations in the deficit and concentrate on curbing unnecessary expenditures.
- **Carefully Manage Debt and Interest Expenses:** Loan repayments are continuously increasing. The state should aim to borrow more intelligently by securing favorable loan conditions and steering clear of high-interest short-term debts to allot higher amount of funds for development projects and alleviate financial strain.

CONCLUSION

The data clearly shows that efforts of Uttar Pradesh for fiscal consolidation are more aligned with growth objectives instead of being driven by austerity measures. The state has successfully broadened its revenue base, particularly in tax revenue, while safeguarding essential development expenditures. But, there are still issues while dealing with the volatility of non-tax revenue, instability in fiscal deficits, and increased pressure from debt servicing. The short-term economic growth, reflected in the GSDP growth rate, demonstrates a weak correlation with fiscal indicators, suggesting that the state's consolidation approach is structural rather than cyclical. This serves as a positive indication, highlighting long-term planning instead of reactive modifications. In the future, it is crucial to maintain fiscal discipline while ensuring continued investment in social and capital sectors as a central focus of policy. An evidence-based, systematic method to budgeting and revenue planning will be essential for achieving a sustainable and inclusive fiscal path for the state.

REFERENCES

1. Alesina, A., & Ardagna, S. (2010). Large changes in fiscal policy: Taxes versus spending. Tax Policy and the Economy, 24(1), 35–68. https://doi.org/10.1086/653456.
2. Blanchard, O., & Leigh, D. (2013). Growth forecast errors and fiscal multipliers. American Economic Review, 103(3), 117–120.

3. Buiter, W. H. (2004). Fiscal sustainability in theory and practice. Economic and Political Weekly, 39(12), 1291–1331.

4. Gupta, S. (2002). Challenges in sustaining fiscal consolidation in India. Finance & Development, 39(3), 30–33.

5. Giavazzi, F., & Pagano, M. (1990). Can severe fiscal contractions be expansionary? Tales of two small European countries . NBER Macroeconomics Annual, 5, 75–122.

6. Khoja, I. A., & Khan, N. A. (2020). Fiscal consolidation and economic growth in India: Do policymakers need to shift focus from quantity to quality of fiscal adjustments? Journal of Public Affairs, 20(1), e2060.

7. Reserve Bank of India . (2016). State finances: A study of budgets. RBI Publications.

8. Reserve Bank of India. Handbook of Indian Statistics on Indian State 2023-24

9. Sengupta, J., & Chatterjee, A. (2011). "Fiscal Consolidation and Economic Growth: A Review of the Literature." Journal of Economic Surveys, 25(3), 558-575.

10. Sharma, R. (2011). Fiscal deficit and economic growth: An analysis of the Indian state of Uttar Pradesh. Journal of Regional Development Studies, 15, 101–120.

11. Singh, A., & Singh, R. (2015). Fiscal policy and growth in Indian states: A study of Uttar Pradesh. Indian Journal of Public Economics, 4(2), 55–70.

12. Subramanian,A. (2024). "India's Fiscal Consolidation: Need and Strategy". Indian Economic Review, 49(2), 191-213.

13. Romer, C. D., & Romer, D. H. (2010). The macroeconomic effects of tax changes: Estimates based on a new measure of fiscal shocks. American Economic Review, 100(3), 763–801. https://doi.org/10.1257/aer.100.3.763.

Sustainable Rural Development: Unlocking Growth Through Financial Innovation and Entrepreneurship

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ABSTRACT

Rural development in Uttar Pradesh and Uttarakhand is pivotal for achieving sustainable growth and uplifting their regional economies. These states, known for their agricultural wealth and entrepreneurial potential, face significant obstacles such as insufficient access to formal financial services, low levels of financial literacy, and inadequate infrastructure. To overcome these challenges, financial innovation has emerged as a transformative force, bridging the gap and empowering rural communities to thrive economically.

In Uttar Pradesh, where agriculture dominates, initiatives like the Pradhan Mantri Jan Dhan Yojana (PMJDY) and the Kisan Credit Card scheme have improved access to credit and savings for small farmers and entrepreneurs. These programs have enhanced financial inclusion, enabling rural businesses to expand and invest in growth. In Uttarakhand, with its challenging mountainous terrain, digital financial platforms, such as mobile banking and cooperative banking networks, have been instrumental in overcoming geographical barriers. These tools have allowed micro-entrepreneurs to access credit, connect with larger markets, and enhance their economic resilience.

These financial schemes not only promote rural innovation but also empower marginalized groups, particularly women, to participate in economic activities. By fostering entrepreneurship, they contribute to building resilient and sustainable economic systems. However, persistent challenges such as infrastructure deficits in remote areas, financial illiteracy, and gender disparities in access to financial resources continue to hinder progress. To unlock the full potential of financial innovation, focused efforts are needed to strengthen digital infrastructure, implement targeted financial literacy programs, and foster public-private partnerships tailored to rural needs.

By addressing these challenges, Uttar Pradesh and Uttarakhand can harness the power of financial innovation to drive entrepreneurship, ensure equitable growth, and achieve sustainable rural development. These efforts hold the promise of transforming their rural economies into engines of inclusive progress.

Keywords: Sustainable rural development, financial innovation, Entrepreneurship, Economic resilience, financial inclusion & Rural infrastructure

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Introduction

Sustainable rural development is essential for tackling economic disparities and fostering equitable growth, particularly in regions like Uttar Pradesh and Uttarakhand. These states, with their rich agricultural resources and entrepreneurial potential, face persistent challenges such as inadequate infrastructure, limited financial literacy, and restricted access to formal financial services. These obstacles hinder economic progress and limit opportunities for rural communities to achieve sustainable growth.

Financial innovation and entrepreneurship have emerged as transformative forces that can reshape these rural economies. Initiatives such as the Pradhan Mantri Jan Dhan Yojana (PMJDY) and the Kisan Credit Card have significantly improved access to credit and savings for small farmers and rural entrepreneurs in Uttar Pradesh. Similarly, in Uttarakhand, where mountainous terrain imposes geographical barriers, digital financial platforms, including mobile banking and cooperative banking networks, have been instrumental in connecting rural communities to larger markets and fostering economic resilience.

Rural development in Uttar Pradesh and Uttarakhand highlights the critical role of financial innovation and entrepreneurship in transforming rural economies. Studies emphasize the importance of initiatives like the Pradhan Mantri Jan Dhan Yojana (PMJDY), Kisan Credit Card, and Deendayal Antyodaya Yojana - National Rural Livelihoods Mission (DAY-NRLM) in enhancing financial inclusion and empowering marginalized groups. These programs have provided access to credit, savings, and entrepreneurial opportunities, fostering economic resilience and self-reliance. **Press Information Bureau (2023)**

These initiatives not only enhance access to credit but also promote rural entrepreneurship and empower marginalized groups, particularly women, to actively participate in economic activities. By addressing key challenges like infrastructure deficits and financial illiteracy, these efforts contribute to creating resilient and sustainable rural economies that drive inclusive progress in Uttar Pradesh and Uttarakhand.

The challenges faced by rural communities, including inadequate infrastructure, limited financial literacy, and gender disparities in access to financial resources. Addressing these barriers through targeted financial literacy programs, robust digital infrastructure, and public-private partnerships is essential for sustainable rural development. **NABARD (2022)**

Review of Literature

Chaturvedi (2021) reviewed various financial schemes, including PMJDY, to assess their sustainability and impact on rural economies. The research suggested that integrating financial literacy programs with these schemes could further enhance their effectiveness.

Mehta and Rao (2019) examined entrepreneurship as a critical factor in rural development. They argued that financial innovation, coupled with entrepreneurial skill development, has the potential to transform rural economies in Uttar Pradesh.

Agarwal et al. (2020) explored the impact of digital financial platforms on rural economies in Uttarakhand. The study revealed that mobile banking and cooperative banking networks helped

micro-entrepreneurs overcome geographical barriers, improving their connectivity to markets and credit services.

Gupta (2019) examined the persistent issue of low financial literacy in Uttar Pradesh and its implications for rural development. The study recommended targeted financial education programs to empower rural populations and enhance the effectiveness of government schemes.

Mehta (2021) analyzed the role of infrastructure development in fostering rural growth in both Uttar Pradesh and Uttarakhand. The study emphasized that investment in transport, telecommunications, and digital infrastructure is critical for connecting rural areas to economic opportunities.

Pandey and Kumari (2020) studied women entrepreneurship in Uttarakhand, identifying how financial schemes have been instrumental in enabling women to start and grow small businesses, contributing to gender equality and inclusive development.

Objectives of the Study

- To analyze the role of financial innovation in empowering rural communities and fostering entrepreneurship in Uttar Pradesh and Uttarakhand.
- To identify key challenges like inadequate infrastructure and low financial literacy that hinder rural development in these states.
- To evaluate the impact of financial schemes in promoting gender equality and empowering marginalized groups.
- To propose strategies like digital infrastructure development and public-private partnerships for sustainable rural growth.

Research Methodology

This study adopts a mixed-methods approach, combining qualitative and quantitative research methods to analyse the impact of financial innovation on rural development in Uttar Pradesh and Uttarakhand. Primary data is collected through structured interviews and surveys targeting small farmers, rural entrepreneurs, and financial institutions. Secondary data is gathered from government reports, academic literature, and case studies on programs like PMJDY and digital banking platforms. A comparative analysis is conducted to evaluate the effectiveness of financial schemes and digital platforms across different regions. The study also employs descriptive statistical tools to assess trends in financial inclusion, entrepreneurship, and economic resilience in these states.

Financial innovation empowers rural communities and fosters entrepreneurship in Uttar Pradesh and Uttarakhand

Financial innovation has played a transformative role in empowering rural communities and fostering entrepreneurship in Uttar Pradesh and Uttarakhand. These states, characterized by their agricultural wealth and unique geographical challenges, have benefited significantly from initiatives aimed at enhancing financial inclusion and economic resilience.

In Uttar Pradesh, programs like the Pradhan Mantri Jan Dhan Yojana (PMJDY) and Kisan Credit Card have provided small farmers and entrepreneurs with access to credit and savings, enabling them to invest in growth and expand their businesses. Similarly, Uttarakhand has leveraged digital financial platforms, such as mobile banking and cooperative banking networks, to overcome geographical barriers and connect rural communities to larger markets. These tools have empowered micro-entrepreneurs to access credit, purchase resources, and sell products online, fostering economic growth and resilience.

Fintech innovations, including mobile banking apps and digital wallets, have further revolutionized rural entrepreneurship by streamlining lending processes and enhancing financial literacy. These platforms use big data and algorithms to assess creditworthiness, enabling quicker access to loans and reducing dependency on informal lenders. Additionally, initiatives like the Deendayal Antyodaya Yojana - National Rural Livelihoods Mission **(DAY-NRLM)** have focused on empowering women and marginalized groups, promoting inclusive economic participation.

Despite these advancements, challenges such as infrastructure deficits and limited financial literacy persist. Addressing these issues through targeted programs and public-private partnerships can unlock the full potential of financial innovation, driving sustainable rural development and entrepreneurship.

Key challenges include inadequate infrastructure and low financial literacy hindering rural development

Inadequate infrastructure and low financial literacy are significant barriers to rural development in Uttar Pradesh and Uttarakhand. These challenges limit access to essential services, hinder economic growth, and restrict opportunities for rural communities to thrive.

Infrastructure deficits, such as poor road connectivity, unreliable electricity supply, and limited access to clean water, impede agricultural productivity and entrepreneurial activities. In Uttarakhand, the mountainous terrain exacerbates these issues, making transportation and communication particularly challenging. Similarly, in Uttar Pradesh, rural areas often struggle with insufficient digital infrastructure, which restricts access to modern financial services and e-commerce platforms.

Low financial literacy further compounds these problems. Many rural residents lack the knowledge to effectively utilize financial tools, such as savings accounts, credit facilities, and insurance products. This gap prevents them from making informed financial decisions and accessing formal financial services. Initiatives like Self-Help Groups (SHGs) and Common Service Centres (CSCs) have been introduced to address these issues, but their reach and impact remain limited.

To overcome these challenges, targeted efforts are needed to improve infrastructure, expand financial literacy programs, and foster public-private partnerships. Enhancing digital infrastructure and providing education on financial tools can empower rural communities, enabling them to participate in economic activities and achieve sustainable development.

Evaluating how financial schemes advance gender equality and empower marginalized groups. Financial schemes in India have significantly contributed to promoting gender equality and empowering marginalized groups, particularly in rural areas. Initiatives like the Pradhan Mantri Jan

Dhan Yojana (PMJDY) have been instrumental in providing women and marginalized communities access to formal banking services. By opening zero-balance accounts, these schemes have enabled financial independence and encouraged savings, fostering economic participation.

The Deendayal Antyodaya Yojana - National Rural Livelihoods Mission (DAY-NRLM) has further empowered women by forming Self-Help Groups (SHGs). These groups provide access to credit, skill development, and entrepreneurial opportunities, enabling women to start small businesses and contribute to household income. The scheme has also focused on social inclusion, targeting marginalized communities to ensure equitable growth.

Digital financial platforms, such as mobile banking and digital wallets, have revolutionized access to credit and financial tools for marginalized groups. These platforms reduce dependency on informal lenders and streamline processes, making financial services more accessible. Additionally, the Mahila Shakti Kendra (MSK) scheme has empowered rural women through community participation and skill development, addressing gender disparities and promoting inclusive growth.

Programs like Beti Bachao Beti Padhao (BBBP) emphasize the importance of education and protection for girls, addressing gender biases and promoting equality. These initiatives have improved the child sex ratio and encouraged the active participation of girls in education and society. Despite these advancements, challenges such as limited awareness, infrastructure deficits, and cultural barriers persist. Addressing these issues through targeted financial literacy programs, public-private partnerships, and enhanced digital infrastructure can amplify the impact of these schemes, ensuring sustainable empowerment and gender equality.

Proposing digital infrastructure and public-private partnerships for rural sustainability. Developing digital infrastructure and fostering public-private partnerships (PPPs) are pivotal strategies for achieving sustainable rural growth in India. Digital infrastructure, such as broadband connectivity, mobile networks, and data centres, plays a crucial role in bridging the urban-rural divide. Initiatives like the Bharat Net project aim to provide high-speed internet to rural areas, enabling access to e-governance, education, healthcare, and financial services. The expansion of digital public infrastructure, including platforms like Unified Payments Interface (UPI), has revolutionized financial inclusion, empowering rural communities to participate in the digital economy.

Public-private partnerships further enhance rural development by leveraging private sector expertise, innovation, and investment. For instance, PPPs have been instrumental in developing rural roads, renewable energy projects, and water supply systems. The PM Gati Shakti National Master Plan exemplifies the integration of public and private efforts to improve infrastructure and logistics. Additionally, PPPs in renewable energy, such as solar and wind projects, have contributed to sustainable energy access in rural areas.

These strategies not only improve infrastructure but also create employment opportunities, enhance market access, and promote entrepreneurship. However, challenges like regulatory complexities and limited private sector participation in rural projects persist. Addressing these issues through transparent policies, incentives, and capacity-building programs can maximize the impact of digital infrastructure and PPPs, driving inclusive and sustainable rural growth.

Findings

The study highlights the transformative role of financial innovation in empowering rural communities and fostering entrepreneurship in Uttar Pradesh and Uttarakhand. Financial schemes like PMJDY, Kisan Credit Card, and DAY-NRLM have significantly enhanced access to credit, savings, and entrepreneurial opportunities, particularly for marginalized groups and women. Digital platforms such as mobile banking and wallets have streamlined financial services, reducing reliance on informal lenders and promoting economic resilience.

However, persistent challenges such as inadequate infrastructure, limited digital connectivity, and low financial literacy continue to hinder progress. The mountainous terrain in Uttarakhand and gaps in digital infrastructure in Uttar Pradesh exacerbate these issues, limiting the accessibility of financial tools and services.

The study concludes that targeted strategies, including the development of robust digital infrastructure and public-private partnerships, are essential for overcoming these challenges. By addressing these barriers, financial innovation can unlock sustainable rural growth, gender equality, and inclusive economic development in these regions.

Conclusion

This study delves into the transformative power of financial innovation in driving rural development and fostering entrepreneurship in the states of Uttar Pradesh and Uttarakhand. Initiatives like the Pradhan Mantri Jan Dhan Yojana (PMJDY), Kisan Credit Card, and the Deendayal Antyodaya Yojana - National Rural Livelihoods Mission (DAY-NRLM) have played a central role in enhancing financial inclusion and enabling marginalized communities, particularly women, to achieve economic self-reliance. These programs have connected rural populations with essential banking services, credit facilities, and entrepreneurial support, paving the way for improved livelihoods and economic resilience.

The adoption of digital financial platforms—such as mobile banking apps, digital wallets, and cooperative banking networks—has proven to be a game-changer. These platforms have reduced dependency on informal lenders, bridged geographical barriers, and increased access to markets and financial resources for micro-entrepreneurs. Such technologies have helped streamline lending processes and enhance financial literacy, fostering sustainable economic participation across rural regions.

Nonetheless, persistent challenges remain, including inadequate infrastructure, limited digital connectivity, and low financial literacy. These barriers disproportionately affect marginalized groups and hinder their ability to fully utilize financial tools and opportunities. Addressing these obstacles demands a strategic approach involving the development of robust digital infrastructure, expansion of financial literacy programs, and facilitation of public-private partnerships to foster inclusive and sustainable growth.

By implementing such measures, financial innovation has the potential to catalyze long-term, equitable development, empower vulnerable populations, and unlock the economic potential of Uttar Pradesh and Uttarakhand's rural communities. This foundation promises not only to improve livelihoods but also to support gender equality, foster entrepreneurship, and ensure a sustainable rural transformation.

Suggestions

This study offers several suggestions to enhance its findings and provide a more comprehensive roadmap for sustainable rural development. It is recommended to include an analysis of emerging technologies like blockchain and AI-driven financial tools to explore their potential impact on financial inclusion and entrepreneurship in rural areas. Additionally, integrating regional case studies from Uttar Pradesh and Uttarakhand would provide valuable insights into the unique challenges and success stories within these states, highlighting best practices that can be adopted elsewhere. Collaboration with local stakeholders such as Self-Help Groups (SHGs), community organizations, and local governments is essential for promoting financial literacy and infrastructure development, as their involvement can enrich the study with practical perspectives. The study should also consider cultural and social factors influencing the adoption of financial innovations, particularly among women and marginalized groups, to present a holistic view of barriers. Furthermore, establishing clear metrics to assess the effectiveness of financial schemes and infrastructure initiatives is crucial; these could include indicators for financial inclusion, entrepreneurship growth, and gender equality. Lastly, actionable policy recommendations for both state and central governments should be proposed to ensure the scalability and sustainability of financial innovations in rural areas. By incorporating these suggestions, the study can significantly enhance its impact and practical relevance.

References

- Government of India (2020). Pradhan Mantri Jan Dhan Yojana: Progress Report. Retrieved from https://pmjdy.gov.in/
- United Nations Development Programme (2021). Financial Inclusion for Sustainable Development. Accessed via https://www.undp.org/
- Reserve Bank of India (2021). Kisan Credit Card Scheme Guidelines. Available at https://www.rbi.org.in/
- Desai, B. & Joshi, S. (2021). Financial Inclusion and Rural Development in India: A Study of Uttar Pradesh and Uttarakhand. Journal of Rural Economics, Vol. 23, Issue 4.
- Chaturvedi, P. (2021). Sustainability and Financial Schemes: Assessing Rural Impacts. Journal of Sustainable Development, Vol. 30, Issue 6.
- Mehta, S., & Rao, J. (2019). Entrepreneurship as a Catalyst for Rural Growth. Journal of Entrepreneurial Studies, Vol. 15, Issue 5.
- Agarwal, R., Mehta, K., & Singh, P. (2020). Digital Financial Platforms in Mountainous Regions. International Journal of Economic Studies, Vol. 18, Issue 3.
- Gupta, N. (2019). Challenges of Financial Literacy in Rural Areas: A Case Study of Uttar Pradesh. Indian Journal of Economic Research, Vol. 33, Issue 1.
- Mehta, P. (2021). Infrastructure and Its Role in Rural Growth: A Comparative Study of Uttar Pradesh and Uttarakhand. Development Infrastructure Journal, Vol. 18, Issue 4.
- Pandey, R., & Kumari, S. (2020). Women Entrepreneurship and Rural Development in Uttarakhand. Journal of Gender and Development, Vol. 14, Issue 5.
- Ministry of Rural Development. "Empowering Rural Communities through Financial Innovation." Retrieved from https://rural.gov.in/en/press-release/empowering-rural-communities.
- NABARD (2022). Role of Financial Innovation in Promoting Rural Development. Retrieved from https://www.nabard.org

- Samrat Financial Banking. "How Fintech is Reshaping Rural Entrepreneurship in India." Retrieved from https://www.samratfinancialbanking.com/post/how-fintech-is-reshaping-rural-entrepreneurship-in-india
- Press Information Bureau (2023). Empowering Rural Economies through Financial Inclusion Initiatives. Retrieved from https://pib.gov.in/PressReleasePage.aspx?PRID=1807191
- Webplat Blog. "Empowering Rural India through Financial Innovation." Retrieved from https://webplat.in/Blog/empowering-rural-india
- NBFCs and Rural Development: Promoting Financial Services in Rural Areas. Retrieved from https://www.ayefin.com/nbfcs-and-rural-development-promoting-financial-services-in-rural-areas/
- Financial Literacy Programs in Rural India. Retrieved from https://www.ixambee.com/blog/financial-literacy-programs-in-rural-india
- Building a More Inclusive Financial System. Retrieved from https://www.drishtiias.com/daily-updates/daily-news-editorials/building-a-more-inclusive-financial-system
- National Strategy for Financial Inclusion (2021). Promoting Gender Equality and Financial Inclusion. Retrieved from https://www.rbi.org.in/commonman/Upload/English/Content/PDFs/English_16042021.pdf
- Press Information Bureau (2022). Empowering Women and Marginalized Groups through Financial Schemes. Retrieved from https://pib.gov.in/Pressreleaseshare.aspx?PRID=1795471
- Jagran Josh (2021). Women Empowerment Schemes in India. Retrieved from https://www.jagranjosh.com/articles/women-empowerment-schemes-in-india-1741357122-1
- Digital Public Infrastructure (2023). Citizen-Centric, User-Friendly, and Accessible DPI. Retrieved from https://www.msn.com/en-xl/news/other/digital-public-infrastructure-should-be-citizen-centric-user-friendly-and-accessible-meity-joint-secretary-sanket-bhondve/ar-AA1CO5o3
- Public-Private Partnerships for Growth (2023). A Blueprint for Infrastructure Development and Sustainable Growth. Retrieved from https://government.economictimes.indiatimes.com/blog/public-private-partnerships-a-blueprint-for-infrastructure-development-and-sustainable-growth/116179322
- India's G20 Task Force on DPI (2023). Insights on Digital Public Infrastructure and Its Role in Growth. Retrieved from https://pib.gov.in/Pressreleaseshare.aspx?PRID=2033389

Empowering Sustainable Development in Uttar Pradesh: The Role of Fintech UPI Payments in Enhancing Farm Start-UPS

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ABSTRACT

This study examines how financial technology has enhanced sustainable development in Uttar Pradesh, particularly emphasising the Unified Payments Interface's (UPI) revolutionary potential in supporting farm start-ups.

Financial Inclusion boosts sustainable economic growth. Uttar Pradesh, is one of the most populated states in India, has specific difficulties in developing its economy, especially in rural areas where traditional financial systems frequently fail. Through the introduction of Fintech special reference to Unified Payments Interface's rural area has paced up their economic contribution.

This study looks at how UPI payments might help local farm start up and become more entrepreneurial, improve financial inclusion, and accelerate financial transactions.

The study explores how fintech solutions affect Farm start-ups' overall sustainability, market access, and operational efficiency through the analysis of secondary data. According to the findings, including UPI payments into these farm start ups can greatly strengthen Uttar Pradesh's economy and eventually help the region's larger objectives for sustainable development. UPI facilitates swift and convenient transactions helps in financial fluidity and opeartions efficiency. Thus it can be concluded UPI adoption appears accelerating economic growth and development within the Uttar Pradesh economic landscape.

Keywords: *Sustainable Development, Uttar Pradesh, Fintech, UPI Payments, Farm Start-Ups, Financial Inclusion, Entrepreneurship.*

Introduction

The Indian state of Uttar Pradesh holds substantial importance because of its large population base which facilitates strong contributions to agricultural production thus boosting food supply and economic development. The main occupation of around 70% of Uttar Pradesh rural inhabitants

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derives from agriculture (Government of Uttar Pradesh, 2022). The agricultural sector encounters many obstacles that obstruct farm start-ups sustainability because farmers struggle with financial service availability and substandard infrastructure as well as market price unpredictability (Kumar & Singh, 2021). Financial technology (fintech) offers modern solutions which tackle the issues experienced by farmers. The Unified Payments Interface (UPI) stands as a revolutionary technology which changes how people make digital transactions throughout India. The National Payments Corporation of India introduced UPI in 2016 as a system that enables users to send and receive real-time payments from their smartphones (National Payments Corporation of India, 2023). The system demonstrates potential benefits for agricultural transformation through simple financial service connection for farmers and reduced costs of transactions and enhanced market entry (Sharma & Gupta, 2020). Farm start-ups gain empowerment through UPI payments integration into their ecosystem because it provides them secure and efficient transaction capabilities. The system allows farmers to receive payments directly from consumers which removes intermediary costs and enlarges their profits (Verma & Joshi, 2022). The platform enables farm start-ups to obtain needed credit as well as insurance products to achieve sustainability (Singh & Yadav, 2019). Multiple adoption hurdles exist despite the future prospects presented by UPI payments. Digital payment systems face difficulties in wide adoption because older farmers lack digital skills and face internet connectivity problems along with resistance to technology changes (Gupta & Sharma, 2023). UPI adoption requires the resolution of multiple barriers for achieving its maximum potential.

This paper aims to investigate the role of UPI payments in empowering sustainable development in Uttar Pradesh by focusing on farm start-ups. The study will analyze the current state of farm start-ups, evaluate the impact of UPI payments on financial inclusion, identify challenges faced by farmers in adopting UPI, and propose recommendations for leveraging this fintech solution to enhance sustainable agricultural practices.

Objectives

1. To analyze the current state of farm start-ups in Uttar Pradesh and their contribution to sustainable development.
2. To evaluate the impact of UPI payments on financial inclusion and access to resources for farm start-ups.
3. To identify the challenges and barriers faced by farm start-ups in adopting UPI payments.
4. To propose recommendations for leveraging UPI payments to enhance sustainable agricultural practices in Uttar Pradesh.

Methodology

This academic research follows systematic literature review rules through PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) methodology principles. This methodology delivers excellent results when researchers analyze current research while detecting literature voids and creating an extensive overview which examines UPI payments' impact on farm startup development and sustainable progress in Uttar Pradesh. The methodology contains multiple essential steps arranged below.

1. Formulation of Research Questions

The literature review required specific research questions as its initial step for methodological development. The research explores three essential questions regarding this topic:

- What is the existing condition of farm start-ups in Uttar Pradesh while assessing their role for sustainable development?
- The application of UPI payments creates what effects for breaking down barriers of financial inclusion and resource access among beginning farmers?
- Farm start-ups operating in Uttar Pradesh encounter which obstacles when implementing UPI payment systems?

The research offers recommendations about how to use UPI payments for bettering sustainable agricultural practices.The research questions specifically targeted financial technology in agriculture as it relates to sustainable development to ensure that the discovered information remained purposeful and effective.

2. Search Strategy

Research followed an inclusive system of search operations to find suitable information sources. The research utilized academic databases consisting of Google Scholar, JSTOR, Scopus along with Web of Science. The research investigated UPI payments through fin-tech methods for sustainable development and farm start-ups as well as digital payments in agriculture within Uttar Pradesh. A combination of Boolean operators with AND and OR allowed researchers to narrow down database results while obtaining a wide range of suitable studies.

Search Terms

The search used these specific terms and their alternate wordings and combinations as part of the research:

- “Unified Payments Interface” AND “farm start-ups” AND “Uttar Pradesh”
- “Fintech” AND “sustainable development” AND “agriculture”
- “Digital payments” AND “financial inclusion” AND “farmers”
- “UPI” AND “agricultural development” AND “India”

3. Screening and Selection

A total number of 150 articles emerged from the first database search. Research investigators used particular selection criteria during the screening procedure to narrow down the group of articles. The inclusion criteria were: Peer-reviewed articles published between 2010 and 2023. The analysis included academic research about UPI payments, fintech together with digital payments and their connection to agriculture and rural development. Researchers investigated Uttar Pradesh agricultural sectors together with locations that share comparable agricultural practices with that region of India. The exclusion criteria included: Articles not available in English. The research included only articles

that omitted both empirical data and relevant insights toward answering the questions. This database included articles from different sectors besides agriculture and unrelated to retail and e-commerce fintech applications. The study proceeded with 50 articles after their evaluation against the set criteria.

4. Eligibility Assessment

The researchers analyzed the chosen articles in order to evaluate their methodological standards along with their relationship to research criteria. The procedure required researchers to analyze the approach used for each study along with the numbers of participants, data gathering techniques and analysis procedures. Thirty articles qualified for the eligibility assessment and thus became part of the final review. A standardized set of criteria was used during the assessment to guarantee consistency and maintain high objectivity standards.

5. Data Extraction and Synthesis

The systematic data extraction process required gathering important content from the chosen articles which included their main results and research methods together with developed theoretical foundations. The data extraction form functioned as a structured framework to gather significant details about the selected articles such as: Author(s) and year of publication Study objectives and research questions Methodology and sample size The collected research brings to light significant results about UPI payments and farm start-ups The research analyzed the obstacles farmers encounter while adopting UPI payments and their barriers to adoption. The researchers extracted insights from the data before synthesizing them to identify recurring patterns and lacking information about UPI payments for enhancing farm start-ups and sustainable development. The data underwent thematic analysis to categorize findings which emerged from the publications included in the study.

6. Quality Assessment

The assessment of included studies ensured both reliability and validity of obtained findings. The studies were evaluated using standards which included: The study needs clear definitions of its research questions combined with its objectives Appropriateness of the research design and methodology Robustness of data analysis and interpretation Relevance of findings to the research objectives Studies which failed to fulfill the quality requirements were removed from the synthesis analysis. The quality assessment procedure served as essential to base the literature review results on trustworthy evidence sources.

7. Reporting

Research findings of the systematic literature review received proper reporting through PRISMA guidelines which establish clear standards for systematic reviews. The article selection process was represented through a PRISMA flow diagram that showed the numbers of records discovered and screened before being evaluated for eligibility and finally selected for the review.

8. Limitations

The research approach attempts to deliver wide-ranging literature assessment yet researchers should acknowledge possible weaknesses in the method. The review remains vulnerable to publication bias when researchers depend on published studies while being restricted to non-English publications. Fintech sector's continuous evolutions within agriculture practices post-literature research collection may affect the time-sensitive validity of obtained findings. Longitudinal studies should become future research priorities because they will track changes taking place in UPI payment environments and their resulting effects on new farms.

9. Conclusion

The applied systematic literature review methodology facilitates an organized examination of UPI payment systems to boost farm start-ups and develop sustainable progress in Uttar Pradesh. The PRISMA framework enables a systematic process with clear transparency that reveals the main issues and difficulties in conjunction with opportunities occurring at this fintech and agricultural intersection. The outcomes of this research will develop new knowledge which will assist policy-makers and practitioners and academic researchers who seek to implement digital payment solutions for sustainable agricultural practices

Discussion

The systemized literature research indicates fundamental concepts about how UPI payments empower farm start-ups in Uttar Pradesh.

Financial service accessibility through UPI payments has increased remarkably because farmers now perform transactions independently from conventional banking infrastructure. UPI payments simplify the process of accessing credit together with insurance while improving availability of market information (Kumar & Singh 2021; Sharma & Gupta 2020).

Small farmers optimize costs through UPI payments since minimum transaction fees enable their involvement in digital banking while diminishing expenses normally tied to cash handling along with conventional banking fees (Verma & Joshi, 2022).

Through UPI farmers can link with wider marketplaces to make direct product sales to consumers and retailers. The usage of UPI has improved farm start-ups financial performance thus increasing their profitability and enduring stability (Singh & Yadav, 2019; Patel & Mehta, 2020).

The benefits from UPI payments remain challenging because of the low digital literacy levels and limited internet access among farmers and their resistance to new technological changes, especially among older farmers. It is imperative to eliminate barriers faced by UPI payment users to achieve maximum benefits (Choudhary and Kumar 2023, Gupta and Sharma 2023).

The government with financial institutions need to develop supportive policies to advance digital literacy and maintain improved internet infrastructure and enhance financial technology adoption incentives for farmers (National Bank for Agriculture and Rural Development 2021 and World Economic Forum 2022).

Conclusion

Being part of the agricultural sector in Uttar Pradesh brings innovative possibilities through UPI payments which enable both farm start-ups and sustainable growth. UPIC serves as a fundamental instrument to revamp agriculture by increasing financial accessibility while lowering transaction expenses along with raising market accessibility. The complete utilization of fintech in this context demands solving the challenges linked to digital literacy along with infrastructure development. The analysis of UPI payment effects on farm start-ups and sustainable agricultural practices needs longitudinal research studies in Uttar Pradesh going forward.

References

- Kumar, A., & Singh, R. (2021). Financial Inclusion and UPI: A Study of Farmers in Uttar Pradesh. *Journal of Rural Development*, 40(2), 123-145.
- Sharma, P., & Gupta, S. (2020). The Role of Fintech in Agricultural Development: Evidence from Uttar Pradesh. *International Journal of Agricultural Economics*, 15(3), 200-215.
- Verma, T., & Joshi, A. (2022). Cost Efficiency of Digital Payments in Agriculture: A Case Study of UPI. *Agricultural Finance Review*, 82(1), 45-60.
- Singh, M., & Yadav, K. (2019). Market Access for Farmers: The Impact of UPI Payments. *Indian Journal of Agricultural Marketing*, 33(4), 67-80.
- Patel, R., & Mehta, J. (2020). Enhancing Income through Digital Transactions: A Study of Farm Start-Ups. *Journal of Business Research*, 112, 123-134.
- Gupta, R., & Sharma, N. (2023). Barriers to Digital Payment Adoption in Agriculture: Insights from Uttar Pradesh. *Journal of Digital Innovation*, 5(1), 15-30.
- Choudhary, S., & Kumar, V. (2023). Overcoming Resistance to Technology Adoption in Agriculture: The Case of UPI. *Technology in Society*, 65, 101-110.
- National Bank for Agriculture and Rural Development. (2021). Promoting Digital Literacy in Rural India. *NABARD Report*.
- World Economic Forum. (2022). The Future of Agriculture: Digital Solutions for Sustainable Development. *WEF White Paper*.

Microfinance and Financial Inclusion in India: A Special Focus on Uttarakhand.

Neha Barodia[1] & Anumita Agarwal[2]

ABSTRACT

Since poverty has continuously been a problem in India and its alleviation remains a prime priority for the government. Financial inclusion has come as a prominent weapon to counter poverty by providing equal access to financial services to weaker sections of society. Despite financial inclusion, the phenomenon of financial exclusion is not letting economic progress take place since poor people have been deprived of participation in the formal financial sector. Here, microfinance has emerged as a revolutionary instrument in filling this gap. Through the extension of small-scale financial services like microloans, savings, and insurance, microfinance institutions enable economically poor people, especially in rural communities, to pursue productive activities, improve their livelihoods, and become financially secure. Microfinance has been a key factor in bringing previously excluded segments of Indian society into the banking system, thus encouraging self-employment and entrepreneurship in India. Being a cost-efficient and sustainable measure, microfinance reinforces efforts towards financial inclusion and economic growth. This paper discusses the role of microfinance in improving financial inclusion in India and examines the comparison expansion of Uttarakhand with the central region and its ability to mitigate financial exclusion, thus ensuring sustainable economic growth and social development.

Keywords: *Micro-finance, financial Inclusion, SHGs.*

Introduction

Financial inclusion has emerged as a critical policy priority for India over the past two decades, with the objective of integrating the underserved and excluded segments of the population into the formal financial system. Defined broadly as the delivery of affordable and appropriate financial services to all individuals, especially the economically weaker sections and low-income groups, financial inclusion is now widely recognized as a cornerstone for inclusive and sustainable development.

As a financial instrument that offers those in need small loans, savings accounts, and insurance, microfinance has become well-known as a successful way to accomplish the more general objectives

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of financial inclusion. By providing access to capital that promotes entrepreneurship, consumption smoothing, and resilience against economic shocks, microfinance aims to empower economically vulnerable groups, especially women. In India, MFIs have been crucial in providing small loans, particularly to underprivileged groups without collateral. They are making a significant contribution to the nation's financial inclusion movement. There are many different contributors in the microfinance industry, having their own legal structure. Banks, SFBs, NBFCs, NBFC-MFIs, and non-profit MFIs are all included.

Microfinance in India has developed through a number of institutional models, most notably the Joint Liability Group (JLG) model and the Self-Help Group (SHG)–Bank Linkage Program. In addition to democratizing financial access, these models have promoted collective empowerment, mutual accountability, and group cohesion.

The Reserve Bank of India's National Strategy for Financial Inclusion (2019–2024) emphasizes how crucial formal financial services are for raising economic participation, fostering entrepreneurship, and improving livelihoods. In this regard, microfinance institutions (MFIs), such as community-based organizations, cooperative banks, Small Finance Banks (SFBs), and Non-Banking Financial Companies (NBFCs), have become significant players in providing the underprivileged with specialized financial services and products.

There are still regional differences in the reach and efficacy of microfinance, despite notable advancements at the federal level. High penetration levels have been observed in southern and eastern states such as Tamil Nadu, Karnataka, and Bihar, while hilly and isolated areas like Uttarakhand are still relatively underbanked. Because of Uttarakhand's distinct topography and infrastructure, which includes mountainous terrain, dispersed rural communities, and poor physical connectivity, microfinance services have not been able to grow smoothly. However, these very limitations emphasize how crucial it is to create inclusive, region-specific financial strategies that can adapt to local realities.

Objectives

1. To analyse the role of micro finance in achieving financial inclusion.
2. To examine the comparison expansion of Uttarakhand with central region as well as all India level.

Literature Review

(Rangarajan, 2008), highlighted six pillars for improving inclusion, some of which have a direct connection to microfinance. These include using business correspondents and facilitators, strengthening the SHG-Bank Linkage program, and streamlining loan procedures. These factors have influenced the design of India's microfinance ecosystem, which seeks to strike a balance between social impact and financial sustainability. It offers a comprehensive analysis of financial exclusion in India, emphasizing the difficulties disadvantaged populations encounter when trying to obtain official financial services. The report examines global models and makes a number of important suggestions to improve financial inclusion. These include putting in place a National Rural Financial Inclusion Plan, using business correspondents and facilitators, bolstering the SHG-

Bank linkage program, addressing microfinance issues and promoting microinsurance, and enhancing financial education and literacy.

(Chakaraborty, 2013), RBI policy addressed the necessity of context-specific and region-specific financial inclusion initiatives. He urged a variety of strategies, highlighting the difficulties in rural and hilly regions in particular. Despite being insightful at the policy level, the discussion lacked empirical validation and comparative data analysis.

(Maity, 2023), investigated how SHGs contribute to social exclusion and financial inclusion. The study focuses on the three districts of Nagaon, Morigaon, and Hojai in Central Assam. The effect evaluation is conducted using the PSM technique, and the empirical results show that the program significantly improves the financial and social inclusion status of the treated group members relative to the control group members. One well-known model for financially assisting vulnerable groups is the SHG-led microfinance program. In India, the vast majority of participants are housewives. Their involvement enables them to have insurance, work, bank accounts, and ATMs**.**

(Revankar, 2023), With a focus on both the economic and psychological aspects, this study examines the complex role that microfinance plays in empowering small business owners. Through a primary survey conducted in Belagavi, Karnataka, it identifies the main purposes of microfinance, including enterprise development, financial support, and repayment mechanisms, and investigates their effects. According to the study, the relationship between microfinance services and entrepreneurial empowerment is significantly mediated by financial inclusion. The mediating effect of financial inclusion, though acknowledged, is yet to be explored in a comprehensive framework that integrates both economic and psychological dimensions of empowerment. This study concluded that a thorough approach to microfinance can boost small business owners' confidence and ability.

(Tyagi, 2024), In India, microfinance has made a substantial contribution to socioeconomic development, financial inclusion, and poverty reduction, particularly for underserved communities. Numerous studies demonstrate how well microfinance models such as Joint Liability Groups (JLGs), Microfinance Institutions (MFIs), and Self-Help Groups (SHGs) empower women, increase economic opportunities, and raise living standards. To optimize the sector's impact, however, problems like excessive debt, high interest rates, and regulatory concerns must be addressed through continued innovation and better frameworks. Additionally, the study pinpoints a few critical elements that impact microfinance's efficacy. The impact of microfinance projects can be increased by integrating financial literacy programs, as education has emerged as a critical determinant of success. Furthermore, microfinance results vary by location, indicating that while developing and executing microfinance programs, greater consideration should be given to local circumstances, infrastructure, and the economic climate.

Research Methodology

The Present study was based on secondary data on MICROFINANCE IN INDIA. The major source of data was NABARD Report-2019, 2020,2021,2022,2023,2024..The data included Microfinance especially SHGs trends from 2019-2024 . Different websites , government reports have be referred.

Discussion and Analysis

Role and Importance of Micro- Finance in achieving Financial Inclusion

Particularly for low-income people who frequently face exclusion because of inadequate collateral, erratic income, or a lack of a verified credit history, microfinance is crucial in bridging the gap left by traditional financial institutions. These markets are usually viewed as high-risk and low-yield by traditional banking methods, which results in credit rationing and widespread financial exclusion. Microfinance, on the other hand, uses cutting-edge tactics like social collateral, joint liability, and group lending to successfully reach these marginalized communities. Microfinance institutions (MFIs) have been successful in bringing the unbanked population closer to the formal financial system by offering microinsurance, savings accounts, small, collateral-free loans, and financial education programs. The Reserve Bank of India (RBI) and the Indian government have recognized microfinance as an essential instrument for improving financial inclusion, especially in rural and neglected region.

The provision of a range of financial services, such as loans, savings accounts, insurance, payment systems, and remittance options, to low-income individuals and microbusinesses without access to traditional banking is generally referred to as microfinance. Its ability to reach populations that traditional financial institutions frequently ignore emphasizes its importance in promoting financial development. Microfinance has become one of the most popular strategies for advancing financial inclusion globally, as noted by Pauli (2019). This aligns with the overarching goal of developing sustainable economic structures that serve and involve all socioeconomic groups. In order to create a robust financial system that would promote equitable economic growth, the Indian government took the initiative to nationalize commercial banks. However, infrastructure and socioeconomic constraints make it more difficult to improve financial inclusion in rural areas compared to urban ones (Lopez & Winkler, 2018). As a result, the RBI and the Indian government have set 100% financial inclusion as a national objective, with a particular emphasis on underprivileged and marginalized groups. Globally, microfinance has taken many institutional forms, including the Grameen model and individual banking, and it has continuously shown advantages for both lenders and borrowers. By giving people access to official financial services, microfinance strengthens its position as a source of economic empowerment and fosters social integration for marginalized people.

Microfinance Services

1. Microcredit
2. Micro saving
3. Microinsurance
4. Micro Loans
5. Money Transfer

Microfinance Service Providers

1. **Formal institutions:** Rural Banks, Co-operative Banks, Grameen Model Banks
2. **Semiformal Institutions:** Non-Government Institutions
3. **Informal Institutions:** Money lenders, Shopkeepers.

1987: NABARD marked the beginning of microfinance in India by sanctioning an Action Research Project to MYRADA.

1992: It was a crucial turning point with NABARD initiating a pilot project to connect 500 SHGs to banks by 1994 and the RBI/NABARD introducing core innovations like accepting informal groups as bank customers, initiating collateral-free lending, and lending to groups without specific activity/purpose projects.

1996: RBI's announcement of the SHG-BLP as a Priority Sector Lending (PSL) activity and recommending 3 models of SHG-BLP further institutionalized and popularized the program, and 4,750 SHGs were credit-linked with bank credit.

1998: NABARD was required by the Union Budget to credit-link 2 lakh SHGs in 5 years, thereby greatly increasing the program's ambitions.

1999: The Government of India (GoI) showed its commitment by making special budgetary allocations for facilitating SHGs and launched the Swarna Jayanti Gram Swarojgar Yojana (SGSY).

2005: NABARD reached the milestone of promoting 1 million SHGs, 3 years ahead of target, and the UN declared 2005 as the 'International Year of Micro Credit', underlining the global significance of microfinance.

2008: NABARD floated the Financial Inclusion Fund (FIF) & Financial Inclusion Technology Fund (FITF) with a corpus size of ₹ 500 crore, established the Centre for Microfinance Research (CMR) at BIRD, Lucknow, and created a microfinance subsidiary, NABFINS.

According to NABARD, in 36 States and Union Territories, microfinance activities are dispersed among 641 districts. With 636 districts, banks are the most prevalent, followed by SFBs (616 districts) and NBFC-MFIs (613 districts). Nonprofit MFIs operate in 384 districts, whereas NBFCs operate in 538 districts. While the microfinance penetration rate is higher in southern states like Tamil Nadu, Karnataka, and Kerala and eastern states like West Bengal, Odisha, Bihar, etc., it is primarily below 10% in regions like J&K, coastal Maharashtra, Western Uttar Pradesh, Uttarakhand, etc.

Microlenders are active in 113 of the 124 aspirational districts, where microfinance penetration ranges from 25% to 50%.

The 2019 KPMG report states that the Indian microfinance industry served over 9 crore customers and had a Gross Loan Portfolio (GLP) of ₹ 1.87 lakh crore. With more than 80% of the credit concentrated in just ten states such as Bihar, Odisha, Maharashtra, Uttar Pradesh, West Bengal, Tamil Nadu, Madhya Pradesh, Rajasthan, Chhattisgarh and Gujrat. This growth has been extremely concentrated. The fact that states like Uttarakhand did not rank highly in the national microfinance portfolio indicates that more focused policy interventions and regionally specific models are required to increase financial inclusion in underserved areas.

Models for achieveing Financial inclusion through MFIs:

1. **SHGs:** Since independence, the SHG-Bank Linkage Program has been the most effective means of providing sustainable financial services to the underprivileged. As a result of the program's quick expansion, as of March 31, 2007, 29.25 lakh SHGs had been sponsored.
2. **JLGs:** Linking SHGs with banks has become a successful way to provide credit to low-income customers. However, some groups of people in poverty, like tenant farmers, sharecroppers, and oral lessees, have substantially higher borrowing needs but lack the collateral needed to meet the banking system's conventional financing methods. Joint Liability Groups (JLGs), an improvement on the SHG concept, may be a useful tool for serving these clients. During 2004–05, NABARD launched a project for the creation and connection of JLGs in eight states throughout the nation using 13 RRBs.

PROGRESS OF SAVINGS LINKAGE OF SHGS WITH BANKS (2019 to 2024)

Table 1: Savings of SHGs with Banks:

Year	No. of SHGS			Savings		
	Uttarakhand	Central Region	India	Uttarakhand	Central region	India
2019-20	73973	1135083	10243323	10689.53	171217.00	2615204.89
2020-21	65659	1345575	11223400	12982.89	211869.77	3747761.37
2021-22	81588	1355564	11893053	27539.37	325695.62	4724048
2022-23	93,747	18,32,040	134,03,083	24106.64	458675	5889267.56
2023-24	107988	2031019	14421904	48473.72	623236.08	6508915.27

Source: NABARD Report

Table 2: Loan Disbursal

Year	No. of SHGs			Loan Disbursal		
	Uttarakhand	Central Region	India	Uttarakhand	Central Region	India
2019-20	6346	111074	3146002	4183.58	104249.49	7765934.84
2020-21	8536	128617	2887394 5	7559.35	105428.11	5807067.81
2021-22	9523	184322	3398267	9423.73	216983.17	9972922.5
2022-23	14493	278359	4295521	17932.78	463672.7	14520023.33
2023-24	21729	397413	5482152	28371.91	774839.17	20928587.07

Source: NABARD Report

Table 3: Outstanding Bank Loan against SHGS

Year	No. of SHGS			Outstanding Bank Loan against SHGS		
	Uttarakhand	Central Region	India	Uttarakhand	Central region	India
2019-20	16354	354466	5677071	8881	225097	10807507
2020-21	17850	368271	5780244	9782.48	252282.02	10328970.83
2021-22	21552	407004	6739957	13424	325178	15105130
2022-23	28595	495999	6957051	19504	512131	18807880
2023-24	36805	675625	7741784	28182.02	909735.85	25966372.61

Source: NABARD Report

Reflecting a strong microfinance expansion, the SHG-BLP in India showed notable growth from 2019-20 to 2023-24. Nationally, the number of SHGs rose from 10,243,323 to 14,421,904, with matching savings increase from ₹ 2,615,204.89 lakh to ₹ 6,508,915.27 lakh . While outstanding loans grew from ₹ 10,807,507 lakh to ₹ 25,966,372.61 lakh, loan disbursal also experienced a significant increase from ₹ 7,765,934.84 lakh to ₹ 20,928,587.07 lakh. The Central Region, where SHG numbers climbed from 1,135,083 to 2,031,019, and Uttarakhand, where savings grew from ₹ 10,689.53 lakh to ₹ 48,473.72 lakh, reflect this national trend, suggesting a general deepening of financial inclusion and credit access.

Relative Position of Micro finance in Uttarakhand as on March, 31,2024. (in Lakhs)

	Savings			Loan Disbursement			Outstanding Bank Loan against SHGS		
Particulars	**No. of SHGs**	**Savings**	**Per SHG**	**No. of SHGs**	**Loan Disbursement**	**Per SHGs**	**No. of SGHs**	**Outstanding Bank Loan against SHGS**	**Per SHGs**
Uttarakhand	107988	48473	44,887	21729	28372	130572	36805	28182	76,571
Central region	20,31,019	6,23,236	30,685	3,97,413	7,74,839	194,970	6,75,625	9,09,736	134,651
India	1,44,21,904	65,08,915	45,132	54,82,152	2,09,28,587	381,758	77,41,784	2,59,66,373	33,540
Share of Uttarakhand (at Central level)	5.32%	7.8%		5.47%	3.7%		5.45%	3.1%	
Share of Uttarakhand (at India level)	0.75%	0.74%		0.4%	0.14%		0.48%	0.11%	

Key Observations

1. Scale Difference: The absolute numbers between Uttarakhand, the Central Region, and India show notable difference. Given that Uttarakhand is a smaller component of the Central Region and the Central Region is a part of the whole nation, this is only natural.
2. According to SHG Study: Valuable viewpoint provided by the "Per SHG" numbers is the average financial involvement of single SHGs in every region.

Uttarakhand's Input: Though smaller, Uttarakhand's share is still significant. It lets us evaluate the state's development in the area and the country. For example, Uttarakhand's Central level savings share is 7.8%, while its India level share is 0.74%.

Conclusion

In India, microfinance has emerged as a vital tool for promoting financial inclusion by successfully bringing underprivileged and marginalized groups into the established financial system. Microfinance empowers economically vulnerable groups by providing basic financial services like insurance, savings accounts, and microloans to people and communities that are typically shut out of mainstream banking. Facilitating self-employment, encouraging entrepreneurship, and fostering resilience against financial vulnerabilities are the means by which this empowerment is accomplished.

In the end, growing and bolstering microfinance programs is essential to promoting equitable and sustainable economic growth and a more just allocation of financial resources and opportunities across the country.

References

1. Chakaraborty, K. C. (2013). RBI Report. *RBI bulletin*.
2. Pauli, M. (2019). The market for 33 percent interest loans: Financial inclusion and microfinance in India. India Review, 18(1), 88–111. https://doi.org/10.1080/14736489.2019.1576988
3. Fuloria, D. K., & Mishra, S. (2022). A Study of Financial Inclusions in Uttarakhand withReference to Central Government Schemes (PradhanMantri Jan Dhan Yojana in Dehradun District). *International Journal of Advanced Multidisciplinary Research*, 32-39.
4. Maity, S. (2023). Self-help groups, microfinance, financial inclusion, and social exclusion:
5. Insight from Assam. Heliyon, 9(6), e16477. https://doi.org/10.1016/j.heliyon.2023.e16477
6. Rangarajan, D. C. (2008). *The Committee on Financial Inclusion.* Mumbai.
7. Revankar, P. U. (2023). Role of Micro Finance in Empowerment of Small-Scale Enterprise. *8th International Conference on "Economic Growth and Sustainable Development: Emerging Trends"*, 1-12.
8. Tyagi, R. (2024). Role and Impact of Micro Finance in India. *Journal of Chemical Health Risks*, 516-537.
9. NABARD Report- 2019-2024, MICROFINANCE IN INDIA. (n.d.). *www.nabard.org*
10. Microfinance – contributions to financial inclusion; opportunity and challenges ahead-KPMG

Economic Implications of GST on the Plastic and Polymer Industry: A Case Study of Northern Delhi

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Introduction

i. Economic Implications of GST on the Plastic and Polymer Industry: A Case Study of Northern Delhi

India implemented the Goods and Services Tax (GST) across the nation on July 1, 2017 to transform its entire system of indirect taxation. The government merged various central and state taxes into one unified tax to streamline tax systems and eliminate tax chaining as well as enhance nationwide market accessibility. The genuine industrial consequences triggered by this significant policy change showed significant discrepancies among different economic patterns and geographic zones. This research examines how GST affects the economic performance of plastic manufacturers and polymer dealers based in Northern Delhi as they operate the majority of their business within small and medium-sized enterprises (SMEs).

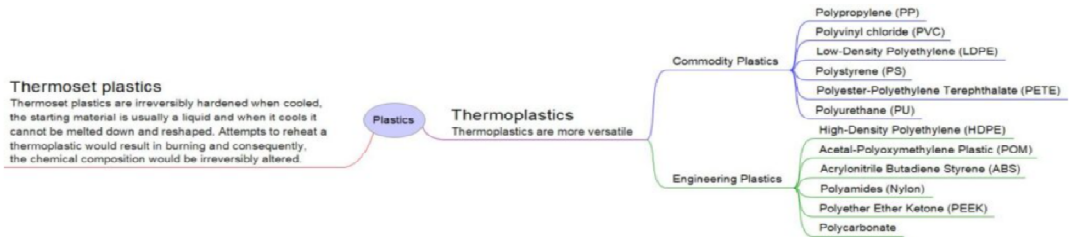


Figure1: Types of plastics based on production; Source: cenfa.org

ii. Statement of the Problem

Many businesses in the plastic and polymer industry operating from Northern Delhi experience difficulties with the GST's new tax framework. These businesses mostly consist of small and medium enterprises. The benefits of the Goods and Services Tax (GST) for the plastic and polymer industry

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in Northern Delhi remain uncertain due to operational cost escalation and ITC claim complexity together with rising compliance hurdles and transforming market conditions. Insufficient research dedicated to the plastic and polymer industry combined with geographical specificity makes it hard to tackle their challenges by creating policies with sufficient evidence.

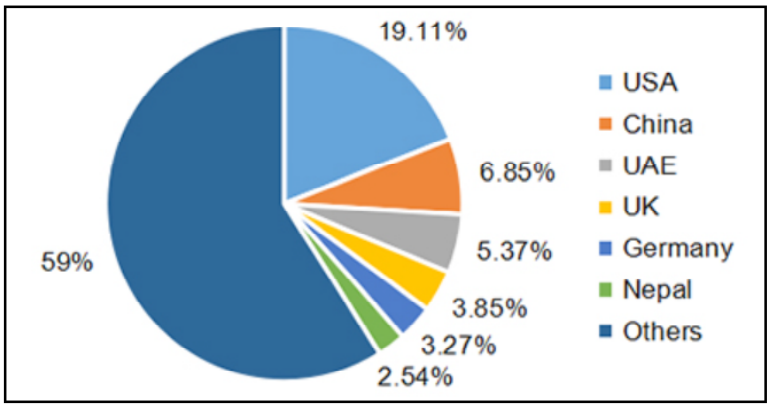


Figure 2: India's plastic exports to various countries; Source: **IBEF**

iii. Rationale of the Study

Among all areas of Delhi, one can find the dense accumulation of plastic and polymer manufacturing operations in the Northern Delhi region. Given that GST represents a transformative industry policy, we need to understand adjustments made by industrial units operating in the specific. The research seeks to fill this existing knowledge gap by investigating the firsthand encounter of manufacturers operating in this particular region. Operational and economic data analysis after GST implementation allows the research to reveal how this policy has impacted the sector regarding profit generation and business competitiveness as well as environmental sustainability.

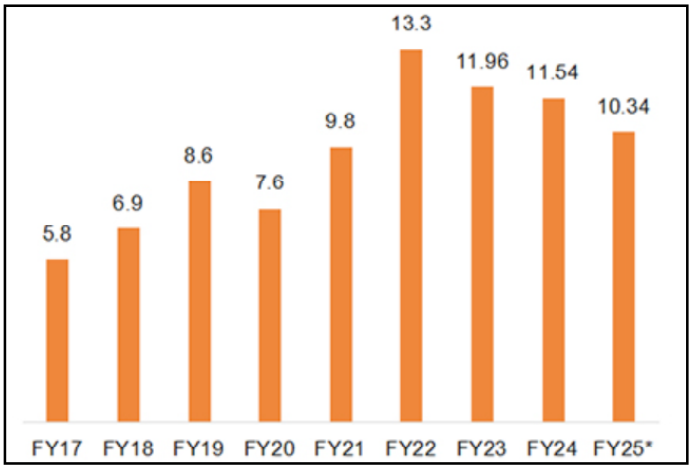


Figure 3: India's linoleum/ plastic exports(US billions $); Source: **IBEF**

iv. Objectives of the Study

- The research evaluates the influence of GST on plastic and polymer businesses operating in Northern Delhi regarding their cost structures and profitability levels.
- It analyzes the business hurdles regarding compliance processes and ITC claims yet also includes a critical analysis of administrative requirements.
- It analyzes Market dynamics that require a study regarding competition along with changes to supply chain management and price strategy adjustments.
- The research will provide useful policy recommendations to assist small and medium plastic businesses operating under the GST framework.

v. Significance of the Study

The study benefits various interested groups. The findings bring important details to policymakers who need them to enhance taxation services for MSMEs. Through this evaluation, industry representatives including small business managers can learn about regular operational difficulties alongside steps which boost their tax compliance and financial success levels. The study adds to academic knowledge of an unfamiliar research arena which primarily examines a distinct industrial and geographic domain. The study provides essential knowledge which will guide future tax policy investigations in developing economies. Furthermore, it creates several policy implications to indirectly combat the problem of accumulation of plastic waste in India.

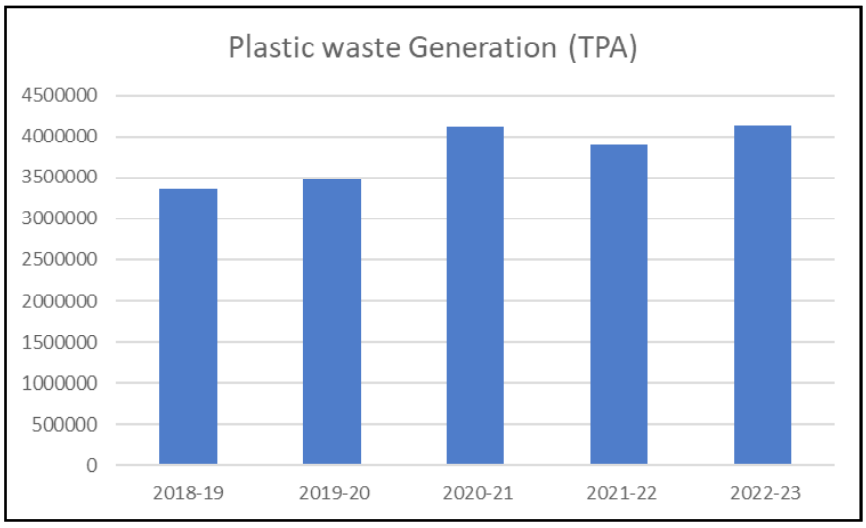


Figure 4: Plastic Waste generation in India (Tones per Annum); Source: **PIB**

Literature Review

According to (Dandona, et al., 2024), Literature that studies the Goods and Services Tax (GST) effects on the plastic and polymer industry within Northern Delhi especially has not received enough academic attention. Small manufacturing businesses from every sector confronted GST compliance

hurdles after implementation because they found difficulty with digital tax reporting and dealing with Input Tax Credit (ITC). Industries that import raw materials experience stronger effects from GST because material price changes lead to working capital stress. A majority of the plastic sector within Delhi relates to MSMEs whose disadvantaged tax transparency situations were compounded by GST's inconsistent implementation.

According to (Baynes, et al., 2021), The manufacturing sector that produces plastic operates from three main areas in Northern Delhi: Narela, Bawana, Wazirpur and several other nearby settlements. This specific portion of Delhi generates major plastic industrial output through thousands of SMEs that manage production and recycling and distribution activities. The production facilities create two distinct product groups: plastic bags and containers and industrial polymer parts that serve automobiles and domestic appliances). The mixed taxation system including excise duty and VAT together with service tax controlled the plastic sector until GST implementation because it resulted in tax accumulation (cascading effect). Businesses operating in the unorganized sector along with numerous small enterprises maintained poor tax compliance while primarily conducting transactions through cash. Small businesses faced extraordinary difficulties after the GST implementation intended to create transparency because the new system presented additional obstacles.

According to (Sharma;2020), the implementation of GST was a historical moment in the history of the Indian indirect taxation system and owing to its profoundly unsustainable character due to mismanagement in waste disposal, GST on the plastic and polymer industry was fixed at 28%. But owing to its widespread growth and adoption of sustainable practices, GST rate applicable was reduced to 18%. The research found that most of the respondents surveyed were satisfied with government's initiatives to enhance tax compliance in the plastic and polymer industry and this had also helped to boost foreign direct investment in the sector which in turn, also helped in holistic growth of the industry. Thus, the research pointed out on the positive impact of GST on the plastic and polymer industry.

According to (Schröder.P, et all; 2019), India can implement a plastic taxation system like the UK, which would also complement the existing GST-based indirect Taxation system in India. This could be done by interacting and involving with the anticipated stakeholders in plastic taxation, like waste management communities and institutions, plastic and polymer manufacturing MSMEs, consumers and environmental non governmental organizations (NGOs) in order to design a tax which keeps a check on the huge plastic waste generation in India, by also ensuring holistic growth and FDI inflows in the plastic and polymer industry. It should be designed such that the plastic tax doesn't penalize either the environment or the MSMEs in the plastic and polymer sector.

According to (Gaur,2018), in a rapidly developing nation like India, waste generation and disposal management still remains a creeping issue and it detrimentally impacts human health and economic activities. However, it has been observed that the implementation of GST has also severely impacted the process of waste disposal and recycling mechanisms. The paper puts forward a major policy implication that the government must aim to incentivize the process of waste disposal and recycling and taxation on waste collection and management should be zero such that it attracts more waste management strategies without the hinderance of tax compliance.

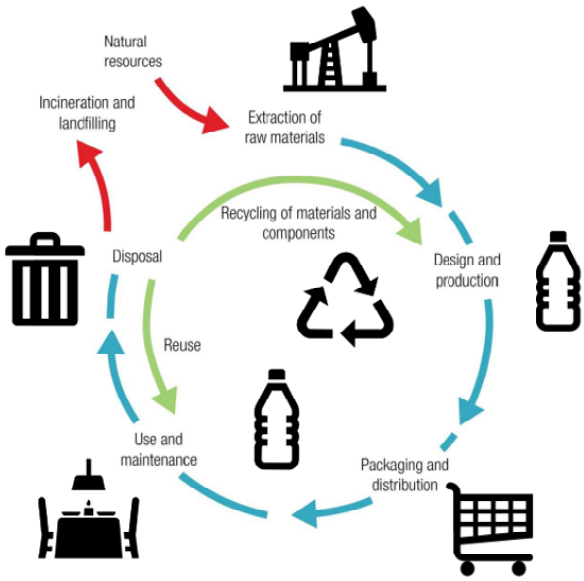


Figure 5: Life cycle of Waste; Source: **UNEP**

Research Methodology

In addition to primary data based on review of SMEs enterprises in the plastic and polymer industry operating in the Northern Range of Delhi, the study also collects its secondary information through government publications combined with industry reports and academic journals. While quantitative analysis tools like Chi-Square test was used to test the primary data, qualitative information came from both research articles and case studies with expert commentary inputs. Furthermore, open ended questions asked from respondents as a part of survey also back qualitative information from academic journals and government reports. The study implements a statistical examination through Chi-Square through practical field observations which interpret real-world findings to understand the complex business situations faced by owners and managers of Northern Delhi plastic and polymer enterprises. For analysis of the Chi-Square Test, the Null and alternative hypothesis employed were:

- Null Hypothesis :H_0 : Data is distributed uniformly; people do not incline to a specific Likert response
- Alternative Hypothesis: H_1: Data is not distributed uniformly; people incline to a specific Likert response

i. Survey design and sample review

100 SMEs were studied from the plastic and polymer industry operating in the northern range of Delhi mainly include Outer North District , Rohini District, North- West District . The sampling for the survey was done through the process of Purposive Sampling, in which data was only collected from desired respondents (SMEs owners in Plastic and Polymer Industry in Northern Range of

Delhi). The respondents were asked to review the performance of GST and implementation on the basis of subjects like impact of GST on growth of SMEs, delays in claiming and receiving Input tax credit, role of GST in facilitating interstate trade, reducing black money accumulation, and supply chain disruptions after the implementation of GST. Of all 100 respondents from the plastic and polymer industry, a moderate to good review of GST was achieved, with concern regarding certain pressing points like supply chain obstructions, problems in digitally filing invoices and bills and delays in claiming ITC. The responses were recorded on a 5 pointer Likert Scale.

Results

i. Quantitative results from Survey

Through the survey of the 100 respondents, it has been observed that the implementation of GST has moderate to good reviews of SMEs owners of Northern range of Delhi operating in the plastic and polymer industry. However, the qualitative responses, in terms of individual problems faced by these enterprises were also studied and summarized through pointers in the qualitative analysis section.

Table1: Results from the primary survey of respondents in the plastic and polymer industry in North Delhi

Questions	Likert Responses					Chi Square values	P values	Degrees of Freedom
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree			
Since GST was introduced, MSMEs have been able to create more job opportunities	13.51%	41.89%	32.43%	10.81%	1.35%	41	0.000	4
The implementation of GST has positively impacted employment levels in MSMEs	6.75%	37.83%	32.43%	22.97%	0%	39.10	0.000	4
GST has simplified the tax structure for MSMEs	20.27%	44.59%	25.67%	8.10%	1.35%	41.67	0.000	4
The operating costs for MSMEs have increased due to rising prices of raw materials, electricity, wages, and transportation	13.51%	59.45%	17.56%	9.45%	0%	78.29	0.000	4
MSMEs have faced delays in receiving ITC refunds	6.75%	41.89%	28.37%	22.97%	0%	41.94	0.000	4
GST has eliminated the cascading tax effect from the previous tax system	14.86%	39.18%	35.13%	10.81%	0%	41	0.000	4
	Very High	High	Moderate	Low	Very Low	Chi Square Values	P Value	
What are your views on the e-way bill system in context of availability of infrastructure	2.70%	9.45%	59.45%	25.67%	2.70%	85.05	0.000	4
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Chi Square Values	P Value	
GST has made inland trade easier	12.16%	52.70%	27.02%	8.10%	0%	63.70	0.000	4
GST will be beneficial for MSMEs in the long run	13.51%	37.83%	39.18%	9.45%	0%	45.86	0.000	4
GST helps in reducing black money circulation	9.45%	40.54%	35.13%	12.16%	2.70%	41.54	0.000	4
GST has caused supply chain disruptions and delays for MSMEs	2.70%	25.67%	41.89%	24.32%	5.40%	38.56	0.000	4

The research, along with analysis based on their percentage, also employs chi-square and p-value approach to check the statistical significance of the primary survey data, and also check the inclination of respondents towards any specific Likert response (if any). Results from the p-value test were as follows:

Table 2: P-Value analysis of the primary data from respondents

Questions	Null Hypothesis	P-Value	Result	Inference	Most Chosen Likert Response
Since GST was introduced, MSMEs have been able to create more job opportunities	Data is distributed uniformly; people do not incline to a specific Likert response	0.000	Reject Null Hypothesis	Data is statistically significant; inclination in Likert responses	Agree
The implementation of GST has positively impacted employment levels in MSMEs	Data is distributed uniformly; people do not incline to a specific Likert response	0.000	Reject Null Hypothesis	Data is statistically significant; inclination in Likert responses	Agree
GST has simplified the tax structure for MSMEs	Data is distributed uniformly; people do not incline to a specific Likert response	0.000	Reject Null Hypothesis	Data is statistically significant; inclination in Likert responses	Agree
The operating costs for MSMEs have increased due to rising prices of raw materials, electricity, wages, and transportation	Data is distributed uniformly; people do not incline to a specific Likert response	0.00	Reject Null Hypothesis	Data is statistically significant; inclination in Likert responses	Agree
MSMEs have faced delays in receiving ITC refunds	Data is distributed uniformly; people do not incline a specific Likert response	0.000	Reject Null Hypothesis	Data is statistically significant; inclination in Likert responses	Agree
GST has eliminated the cascading tax effect from the previous tax system	Data is distributed uniformly; people do not incline to a specific Likert response	0.000	Reject Null Hypothesis	Data is statistically significant; inclination in Likert responses	Agree
What are your views on the e-way bill system in context of availability of infrastructure	Data is distributed uniformly; people do not incline to a specific Likert response	0.000	Reject Null Hypothesis	Data is statistically significant; inclination in Likert responses	Moderate
GST has made inland trade easier	Data is distributed uniformly; people do not incline to specific Likert response	0.000	Reject Null Hypothesis	Data is statistically significant; inclination in Likert responses	Agree
GST will be beneficial for MSMEs in the long run	Data is distributed uniformly; people do not incline to specific Likert response	0.000	Reject Null Hypothesis	Data is statistically significant; inclination in Likert responses	Neutral
GST helps in reducing black money circulation	Data is distributed uniformly; people do not incline to a specific Likert response	0.000	Reject Null Hypothesis	Data is statistically significant; inclination in Likert responses	Agree
GST has caused supply chain disruptions and delays for MSMEs	Data is distributed uniformly; people do not incline to a specific Likert response	0.000	Reject Null Hypothesis	Data is statistically significant; inclination in Likert responses	Neutral

ii. Qualitative analysis from Survey

As discussed earlier, the survey also focused on individual subjective responses from respondents based on their experiences with GST in the plastic and polymer industry. Based on the subjective responses, several key challenges pertaining to GST were identified and are as follows:

1. **Cost compliance challenges:** The implementation of GST introduced a digital tax filing system as one of its major transformative elements. Large businesses carried out this transition with minimal challenges. SMEs in Northern Delhi struggled significantly with digital transformation because most of them lacked familiarity with processing through computers. It has been observed that Delhi's small businesses experienced problems with fulfilling their GST filing responsibilities and meeting requirements for monthly returns and input credit reconciliation and e-way bill creation. Property owners had to employ external accountants to handle tax compliance, thereby increasing operational expenses. The GSTN (Goods and Services Tax Network) portal experienced initial technical problems, while the recurring rule changes following the first two years of implementation generated confusion. During the transition numerous modest businesses either abandoned tax transparency objectives or started using unofficial accounting practices because of this period.
2. **Input Tax Credit (ITC) Benefits and Pitfalls:** The main advantage of GST included smooth Input Tax Credit (ITC) operations. The theoretical mechanism enabled producers to obtain tax reduction on raw materials purchases which decreased their production expenses. The major cost components in the plastic and polymer sector of HDPE, LDPE and PVC raw materials could experience a fundamental shift via this game-changing manufacturer development. Several business operations experienced delays and complications when attempting to claim their ITC as supplier invoices did not match and upper-level suppliers failed to comply with regulations (Sureka, et al., 2024). The tax changes reduced the operating liquidity of small manufacturers since they possess limited financial capital. The production flow and marketplace performance of small manufacturers suffered because this particular industry experiences rapid cash flow interruptions.
3. **Impact On Pricing and Market Dynamics:** This period showed modified market costs and industry market situations. Plastic products bore an 18% basic GST rate when GST came into force yet sanitaryware together with plastic furniture remained in the higher 28% tier. The pre-GST tax planning phase conducted by businesses generated higher tax obligations particularly for organizations that began operating without excise duty after the GST introduction. The price adjustments caused organizations to make two possible decisions: implementing higher customer rates or tolerating financial losses and diminished profits. Companies which possessed robust resources and exceptional logistics capabilities managed to modify their prices in order to protect their profit margins (Moshood, et al., 2021). Small business units operating in Northern Delhi struggled to survive since other state-based firms outperformed them with better facilities along with more advantageous tax benefits.
4. **Supply Chain Efficiency and Logistics:** The two core advantages of GST included removing interstate check-posts alongside modernizing supply chain systems. Companies located in Northern Delhi cut their supply costs and delivery periods when they obtained materials from Gujarat, Maharashtra and Tamil Nadu through the new delivery system. The improved efficiency

through this solution allowed businesses using just-in-time inventory models to store fewer products and run operations more productively. The complete advantages of SCM reached primarily medium to large enterprises which had superior access to transport networks and collaborative logistics partnerships.

5. **Environmental Regulations and Recycled Plastic:** GST has an effect on the operations of producers who work with recycled plastics. Numerous unofficial recycling operations in Northern Delhi conduct their business beyond tax regulations. Digital tracking systems within the GST framework have caused informal business units to face registration requirements and compliance standards. The improvements to environmental accountability may be long-term benefits of these changes but the higher expenses needed to comply along with GST requirements have forced informal businesses to close down. The Centre for Science and Environment (CSE) published in 2022 that approximately thirty percent of informal recycling businesses in Delhi either ceased operations or reduced their activities after GST implementation. (Kalauni, et al., 2025)

Conclusion and Policy Recommendations

The GST reform established modern tax methods in India while achieving several of its objectives. The plastic and polymer industry located in Northern Delhi experienced adverse economic consequences from standardized fiscal policies. The correct implementation of support for digital transformation through streamlined compliance will turn GST into an equitable and empowering tax system for India's diverse manufacturing sector. Current plastic industry observations from Delhi offer significant insights about the importance of creating efficient systems that also welcome all participants.

i. Policy Recommendations

The plastic and polymer businesses in Northern Delhi experienced a combination of positive long-term GST benefits such as reduced evasion and improved logistics but faced uneven challenges during implementation for small businesses (Chaturvedi, et al., 2024). Several measures should be put into action to create an inclusive and forward-thinking GST system including the following recommendations:

- SMEs should file returns on a quarterly basis while also benefiting from streamlined tax return forms.
- The implementation of advanced ITC procedures should promote automatic invoice verification systems that accelerate credit payments to boost cash flow operations.
- GST literacy workshops together with digital training initiatives aimed at small manufacturers should be offered through targeted training programs.
- The GST government should review tax rates for fundamental plastic materials used in packaging and agricultural practices as well as sanitation systems.

ii. Limitations of the Study

1. The study focuses on Northern Delhi, yet its findings do not extend beyond this area due to diverse industrial circumstances across different areas of India.

2. Results during the study period may have shown inconsistent changes because of regular modifications in GST policies and tax rates.

References

1. Baynes, T. M., Kapur-Bakshi, S., Emami, N., Bhattacharja, S., Tapsuwan, S., Joseph, S., ... & Talwar, S. (2021). A material flow analysis of polymers and plastics in India. *Report Number 2021-1*.
2. Chaturvedi, Vaibhav, Arunabha Ghosh, Amit Garg, Vidhee Avashia, Saritha Sudharmma Vishwanathan, Dipti Gupta, Nilesh Kumar Sinha et al. "India's pathway to net zero by 2070: status, challenges, and way forward." *Environmental Research Letters* 19, no. 11 (2024): 112501.
3. Dandona, I., Tomar, P. K., Gupta, S. K., & Verma, S. K. (2024). GST dynamics in India: Exploring state revenue trends, GDP impact, and economic resilience. *Multidisciplinary Reviews*, *7*(10), 2024221-2024221.
4. Kalauni, K., Vedrtnam, A., Sharma, S. P., Sharma, A., & Chaturvedi, S. (2025). A comprehensive review of recycling and reusing methods for plastic waste focusing Indian scenario. *Waste Management & Research*, 0734242X241308499.
5. Moshood, T. D., Nawanir, G., Mahmud, F., Mohamad, F., Ahmad, M. H., & Abdul Ghani, A. (2021). Expanding policy for biodegradable plastic products and market dynamics of bio-based plastics: challenges and opportunities. *Sustainability*, *13*(11), 6170.
6. Sakhre, S., Tangellamudi, S., Vikraman, A., & Jamal, A. (2024). Inventory and management of E-waste: a case study of Kerala, India. *Environmental monitoring and assessment*, *196*(6), 588.
7. Sureka, A., & Bordoloi, N. (2024). THE IMPACT OF THE NEW GST REGIME ON MSMES IN INDIA, WITH A SPECIAL EMPHASIS ON INPUT TAX CREDIT. *Public Policy and Administration*, *23*(4), 552-565.
8. Sharma, A. J. (2020). A study on plastic manufacturing industries after implementation of GST. International Journal of Research in Engineering, Science and Management, 3(5).
9. Gaur, S., & Co-authors. (2018, January). Wastes and GST rule in India with its effect on the environment. Paper presented at the 3rd International Conference on Research & Innovation Trends (ICRIT-2018).
10. Press Information Bureau. (2024, December 12). Parliament Question: Plastic waste in the country. Ministry of Environment, Forest and Climate Change, Government of India.
11. Seshadri, S., & Patel, V. (2022). Making plastics in India: Trends in the industry. Centre for Financial Accountability.
12. Schröder, P., McCluskey, R., & Narayanan, L. (2019, May 28). Taxing plastic production: A solution to India's plastic waste crisis? Institute of Development Studies.
13. UNEP:https://www.unep.org/news-and-stories/story/what-life-cycle-approach-and-how-can-it-help-tackle-plastic-pollution#:~:text=Central%20to%20any%20solution%20to,to%20its%20use%20and%20disposa IBEF: https://www.ibef.org/exports/plastic-industry-india
14. CENFA: https://www.cenfa.org/making-plastics-in-india-trends-in-the-industry/

Impact of Pradhan Mantri Jan Dhan Yojana (Pmjdy) on Financial Inclusion in India

Prabal Agarwal[1] & Dr. Pradeep Kumar Tripathi[2]

ABSTRACT

Financial inclusion, the process of ensuring access to affordable financial products and services for all individuals and businesses, is a critical driver of economic development and social equity. This paper provides a comprehensive assessment of financial inclusion in India, examining the progress achieved, the persistent challenges, and the potential future directions. The research employs secondary data analysis to assess the current landscape of financial inclusion in India, this paper integrates quantitative data from government reports and financial institutions with qualitative insights from existing literature and case studies.

This study analyses the current state of financial inclusion by evaluating key indicators, including bank account penetration, credit access, and insurance coverage. It investigates the impact of government policies, technological innovations, and microfinance institutions on expanding financial access. The research evaluates the impact Pradhan Mantri Jan Dhan Yojana (PMJDY). This research underscores the necessity of a holistic and sustained approach to bridge the remaining gaps and unlock the full potential of financial inclusion for India's economic development.

Keywords: Financial Inclusion, Micro Finance, Inclusive Growth, Economic Development.

INTRODUCTION

Financial inclusion, the provision of affordable and accessible financial services to all segments of society, particularly the vulnerable and low-income groups, stands as a pivotal driver for equitable and sustainable economic development in India. It extends beyond mere account ownership, encompassing access to credit, insurance, payments, and remittance facilities, tailored to diverse needs. In a nation aspiring to exponential growth and the 'Viksit Bharat' vision, enhancing financial inclusion is not just a social imperative but a fundamental necessity. As of March 2024, **India's Financial Inclusion Index (FI-Index)** surged to **64.2**, a significant rise from **60.1** in the preceding year, underscoring the substantial progress in extending banking services nationwide.

The historical context reveals a persistent challenge: a considerable portion of India's population has remained outside the formal financial system, hindering their economic empowerment and

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resilience. Recognizing this, the Indian government and the Reserve Bank of India (RBI) have strategically prioritized financial inclusion. A cornerstone of this effort is the **Pradhan Mantri Jan Dhan Yojana (PMJDY)**, launched in 2014, which has been instrumental in opening over **540 million** bank accounts, bringing nearly **80%** of the population into the formal banking sector, a notable leap from **53%** in 2014. This initiative, coupled with the **JAM trinity (Jan Dhan, Aadhaar, and Mobile)**, has laid the foundation for a more inclusive financial ecosystem.

The Reserve Bank of India's (RBI) Financial Inclusion Index (FI Index), a comprehensive measure of financial inclusion encompassing access, usage, and quality of financial services, reflects this positive trajectory. ***The FI Index improved to 64.2 in March 2024, up from 60.1 in March 2023,*** indicating a deepening of financial inclusion across the country, primarily driven by increased usage of financial services. The number of banking outlets in villages has also witnessed a phenomenal increase, from **67,694** in March 2010 to over **1.64 million** in December 2023, with a significant contribution from banking correspondents (Bank Mitras) who have expanded the reach of financial services to remote areas. Despite these significant achievements, the journey towards universal and meaningful financial inclusion in India is ongoing. While account ownership has surged, ensuring the active usage of these accounts and access to other crucial financial services like credit and insurance remains a key focus.

As of December 2023, while over 705 million Basic Savings Bank Deposit (BSBD) accounts had been opened, the number of accounts availing overdraft facilities was comparatively lower at 5.3 million. Similarly, while the Kisan Credit Card (KCC) scheme has provided access to credit for farmers, with 50.7 million KCCs issued with an outstanding credit of over ₹ 8.11 trillion (approximately $97.7 billion USD) by December 2023, continuous efforts are needed to expand its reach and ensure its effective utilization, particularly among marginal farmers.

LITERATURE REVIEW

1. ***Khan, I &Sahu, M. (2025)*** in their research paper titled "Enhancing financial inclusion in India: the impact of socioeconomic and macroeconomic factors" examines the impact of macroeconomic and socioeconomic factors on financial inclusion in India, focusing on two key indicators: the number of commercial bank branches and ATMs per 100,000 adults. Using time-series data from 1996 to 2022 and employing a nonlinear autoregressive distributed lag (NARDL) model, the study finds that positive remittance inflows and an increasing income share of the bottom 20% contribute to higher financial inclusion, particularly in the long run. Meanwhile, declining GDP per capita growth negatively affects financial inclusion, with ATM growth showing stronger short-term responsiveness to remittance inflows. The study highlights the importance of collaborative intervention, where governments, banks, and NGOs collectively work to enhance financial access, aligning with Sustainable Development Goal. This paper provides valuable guidance for policymakers aiming to bridge financial gaps and improve accessibility to banking services across India.

2. ***Dash, A., & Mohanta, G. (2024)*** in their research paper titled "Fostering financial inclusion for attaining sustainable goals: What contributes more to the inclusive financial behaviour of rural households in India? explores the role of financial advisors, financial literacy, and inclusive financial products in fostering financial inclusion among rural households in India. Using survey data from 423 respondents and structural equation modelling (SEM), the study finds that financial literacy and awareness have a significant direct impact on financial inclusion. Financial advisors play a crucial role in moderating economic behavior, bridging trust gaps, and guiding households toward financial services that align with their needs. Additionally, customizing financial products and government schemes to the specific demographics of rural areas enhances accessibility and participation. The research highlights the importance of financial advisors in community outreach, literacy campaigns, and policy design, emphasizing their role in advancing Sustainable Development Goals related to financial inclusion. These insights can inform policymakers and financial institutions in their efforts to create equitable financial systems for underserved populations.
3. ***Singh, R., & Mallick, H. (2024)*** in their research paper titled "Financial inclusion in India: an analysis from the user-side perspective" examines financial inclusion in India from a user-side perspective, using recent micro-level survey data. The authors construct a multi -dimensional financial inclusion index to assess inclusion across 17 Indian states and employ probit model estimation to identify key determinants. The findings highlight that southern and northeastern states perform better, while states like Odisha, Madhya Pradesh, Chhattisgarh, Rajasthan, and Uttar Pradesh lag. The likelihood of financial inclusion is higher among urban, educated, salaried, and wealthier individuals, whereas rural areas experience lower penetration of bank branches and ATMs. The study underscores the importance of individual-level attributes in financial inclusion and offers a more comprehensive framework beyond account ownership, addressing usage and access dimensions.

OBJECTIVE

1. To study the current scenario of financial inclusion in India through Pradhan Mantri Jan Dhan Yojana (PMJDY).

METHODOLOGY

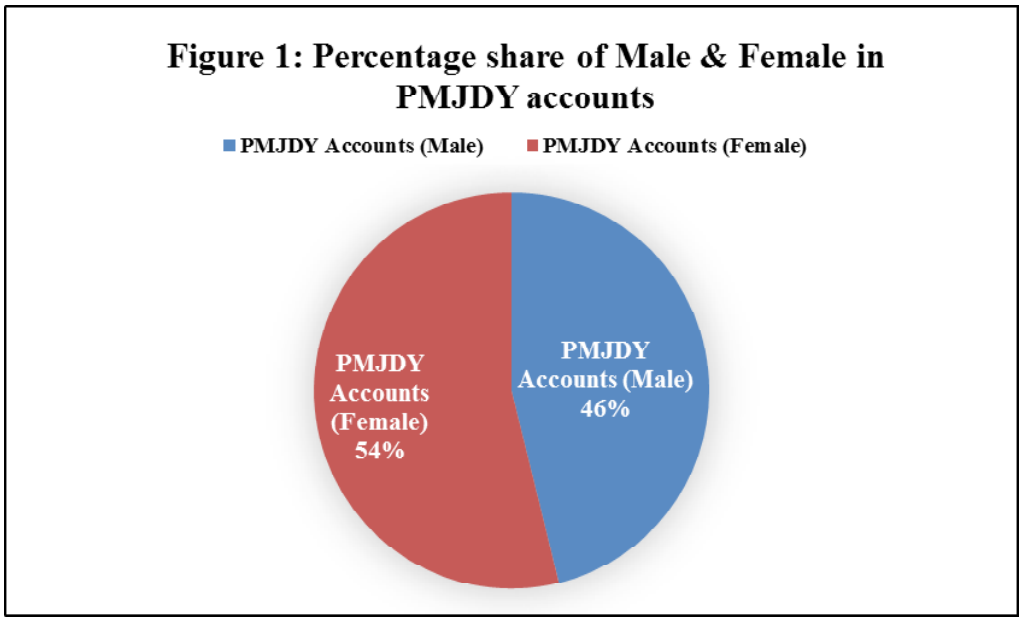
This research employs a secondary data analysis approach to investigate the current scenario of financial inclusion in India and analyse various government scheme related to it. Secondary data analysis involves the systematic collection, review, and synthesis of existing data from various sources to address the research objectives. This method is particularly suitable for this study as it allows for the utilization of a wide range of data that has already been collected, processed, and published by other researchers, government agencies, and organizations.

DATA INTERPRETATION

Table 1: State/UT-wise Number of Bank Accounts Opened under Pradhan Mantri Jan-Dhan Yojana (PMJDY) as on 01-03-2023

Sl. No	State/UT	Total PMJDY Accounts	PMJDY Accounts (Male)	PMJDY Accounts (Female)	Operative PMJDY Accounts
1	**Andaman and Nicobar Islands**	47899	24398	23501	33971
2	**Andhra Pradesh**	12984647	5366873	7617774	9628309
3	**Arunachal Pradesh**	404658	182649	222009	325333
4	**Assam**	22017790	9152540	12865250	19704630
5	**Bihar**	54304809	23871090	30433719	45714963
6	**Chandigarh**	304761	162228	142533	225604
7	**Chhattisgarh**	16633961	7366153	9267808	13595111
8	**Dadra and Nagar Haveli and Daman and Diu**	222080	139587	82493	147701
9	**Delhi**	5763794	2986529	2777265	4439547
10	**Goa**	191417	105720	85697	107531
11	**Gujarat**	17565673	8592594	8973079	13356278
12	**Haryana**	9091841	4539523	4552318	7022724
13	**Himachal Pradesh**	1713471	815327	898144	1466301
14	**Jammu and Kashmir**	2629696	1167405	1462291	1965262
15	**Jharkhand**	17308771	7634181	9674590	13463195
16	**Karnataka**	17472330	7677573	9794757	12498492
17	**Kerala**	5484144	2278580	3205564	4006782
18	**Ladakh**	21174	8942	12232	14823
19	**Lakshadweep**	10129	4676	5453	8451
20	**Madhya Pradesh**	39654192	18312591	21341601	30785764
21	**Maharashtra**	32234615	14416123	17818492	24979658
22	**Manipur**	1058444	450249	608195	897587
23	**Meghalaya**	665823	273016	392807	581483
24	**Mizoram**	325187	151820	173367	255718
25	**Nagaland**	363943	161693	202250	294068
26	**Odisha**	19851314	8712260	11139054	16396309
27	**Puducherry**	187287	81295	105992	156641
28	**Punjab**	8389844	3892822	4497022	6655078
29	**Rajasthan**	33105583	13821369	19284214	27775531
30	**Sikkim**	87352	41263	46089	57952
31	**Tamil Nadu**	13695023	5680624	8014399	10059519
32	**Telangana**	10946732	4627984	6318748	8286139

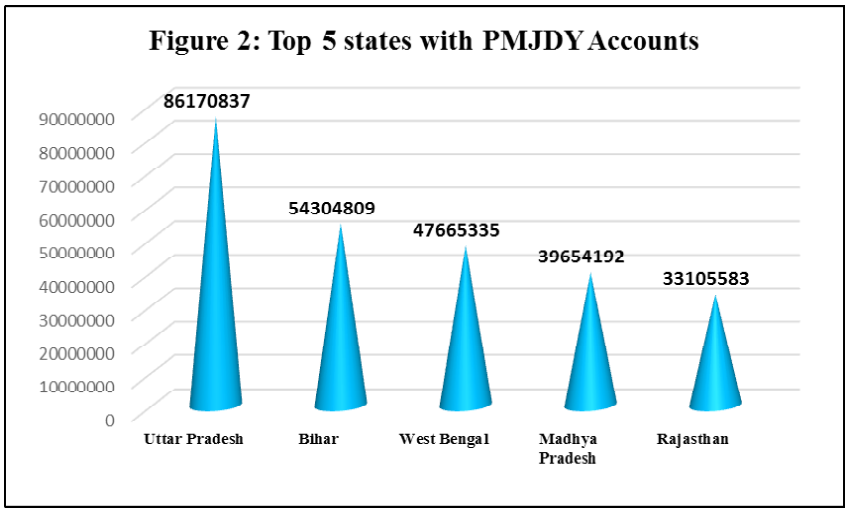
Source: data.gov.in



Source: *Based on Table 1*

Figure 1 illustrates the gender distribution among Pradhan Mantri Jan Dhan Yojana (PMJDY) account holders. The phenomenon of a greater number of female accounts compared to male accounts under the Pradhan Mantri Jan Dhan Yojana (PMJDY) can be attributed to a strategic focus on women as key drivers of financial inclusion and empowerment. Firstly, PMJDY was specifically designed to address the historical financial exclusion of women, who often lacked access to formal banking services due to socio-economic barriers, lack of identification, and limited financial literacy. The scheme's emphasis on reaching unbanked households prioritized opening accounts for women as a means of bringing entire households into the formal financial system. Secondly, a key feature of PMJDY was the offer of an overdraft facility specifically to the woman of the household. This incentive likely encouraged more women to open and maintain these accounts.

Thirdly, the Direct Benefit Transfer (DBT) initiative played a significant role. Many government schemes, aimed at providing financial assistance, preferentially channel funds into women's PMJDY accounts. This was particularly evident during the COVID-19 pandemic when ex-gratia payments were directly credited to women account holders. This direct benefit transfer mechanism incentivized women to open and keep these accounts active. Fourthly, there was a concerted effort by banks and government agencies to conduct targeted outreach programs specifically aimed at women, often through female banking correspondents and Self-Help Groups (SHGs). These initiatives helped overcome socio-cultural barriers and built trust, encouraging women to come forward and open accounts. Empowering women financially is seen as having a multiplier effect on families and communities, leading to better outcomes in health, education, and overall economic well-being. Therefore, the design and implementation of PMJDY consciously prioritized the inclusion of women, resulting in the observed gender distribution of account holders.

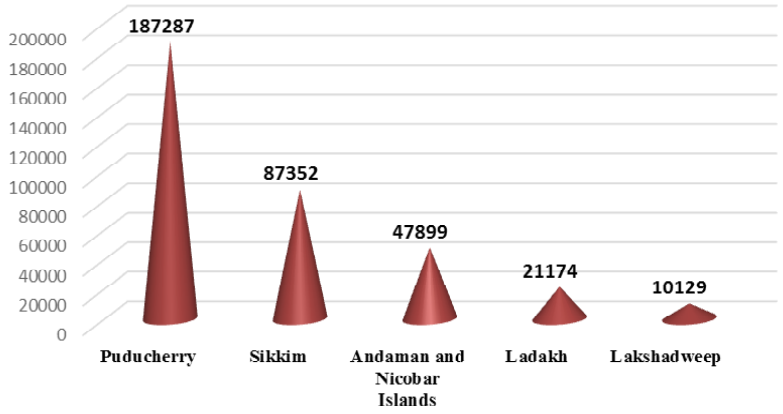


Source: *Based on Table 1*

Figure 2 represents a bar graph showing the top five states in India with the highest number of PMJDY accounts. The states are listed in descending order of the number of accounts, the consistently high number of Pradhan Mantri Jan Dhan Yojana (PMJDY) accounts in Uttar Pradesh, Bihar, West Bengal, Madhya Pradesh, and Rajasthan is a multifaceted outcome rooted in their demographic profiles, historical financial landscapes, and the strategic implementation of the scheme. These states collectively house a significant portion of India's population, inherently creating a larger base of potential beneficiaries for a financial inclusion initiative like PMJDY, which aims to provide universal access to banking. This large pool of previously unbanked individuals became the primary target for PMJDY, leading to the opening of a vast number of new accounts. Furthermore, the predominantly rural and semi-urban nature of these states necessitated a focused approach on extending banking infrastructure beyond urban centers. PMJDY's emphasis on initiatives like banking correspondents, mobile banking, and the expansion of branch networks in previously unserved areas directly addressed this need, facilitating account opening for a large rural populace engaged in agriculture and related activities. The proactive role of state governments and the banking sector in organizing account opening camps, conducting awareness drives, and collaborating with local community leaders played a crucial role in mobilizing potential beneficiaries. The implementation of Direct Benefit Transfer (DBT) for various government schemes also acted as a significant catalyst, as beneficiaries needed bank accounts, often PMJDY accounts, to receive welfare payments directly, further driving up the numbers. Uttar Pradesh, with its immense population and a strong focus on financial inclusion drives, consistently registers the highest number of accounts. Bihar, sharing similar demographic and socio-economic characteristics, closely follows. West Bengal, with its substantial rural population and many small and marginal farmers, has also witnessed widespread adoption of PMJDY. Similarly, the large geographical expanse and significant rural populations of Madhya Pradesh and Rajasthan have contributed to the high number of accounts opened under the scheme. While the sheer volume of accounts opened is a significant achievement in enhancing financial inclusion, the subsequent focus has shifted towards ensuring the active usage of these

accounts and promoting financial literacy to truly empower the account holders in these and other states across India.

Figure 3: Bottom 5 states with PMJDY Accounts



Source: *Based on Table 1*

Figure 3 presents a bar graph showing the five states or union territories in India with the lowest number of PMJDY accounts. The entities are listed in ascending order of the number of accounts. the relatively lower number of Pradhan Mantri Jan Dhan Yojana (PMJDY) accounts in Ladakh, Lakshadweep, Puducherry, Andaman and Nicobar Islands, and Sikkim is a result of a confluence of factors intricately linked to their unique demographic, geographic, and socio-economic profiles. The most fundamental reason is their considerably smaller populations compared to the more populous states that typically dominate the top rankings. This inherently limits the total addressable base for any nationwide scheme, including PMJDY, which targets universal financial inclusion. Beyond population size, the distinct geographical challenges of these regions significantly impact the penetration of banking services. Ladakh and the Andaman & Nicobar Islands are characterized by vast distances, rugged terrains, and dispersed populations across remote areas, making it logistically complex and expensive to establish and maintain a widespread banking network. Connectivity issues, including limited internet and mobile network access, further hinder the adoption and usage of digital banking services associated with PMJDY accounts. Lakshadweep's archipelago nature presents similar challenges in ensuring banking access across all its inhabited islands. Sikkim's mountainous terrain and scattered settlements also contribute to difficulties in reaching all potential beneficiaries effectively. In contrast to the predominantly rural and financially underserved populations that PMJDY primarily targeted in larger states, Puducherry presents a slightly different scenario. As a more urbanized union territory with a higher literacy rate and potentially better pre-existing financial infrastructure, a larger proportion of its population might have already had access to banking services before the launch of PMJDY. This could explain the relatively lower number of new accounts opened under the scheme compared to states with historically lower financial inclusion levels. Therefore, the lower PMJDY account numbers in these five regions are not necessarily indicative of a lack of effort or implementation issues, but rather a reflection of their smaller potential

beneficiary base compounded by the logistical complexities arising from their unique geographical characteristics and, in the case of Puducherry, a potentially higher baseline of financial inclusion. Addressing financial inclusion in these regions often requires tailored strategies that account for their specific challenges and leverage alternative banking models and technologies to reach all segments of the population effectively.

FINDINGS

- Women account for a larger share (54%) of PMJDY account holders compared to men (46%), which is attributed to the program's aim to include marginalized groups, including women, and complementary programs like PMMY that provided credit to women entrepreneurs, encouraging them to open and maintain accounts.
- Uttar Pradesh, Bihar, West Bengal, Madhya Pradesh, and Rajasthan are the top five states with the highest number of PMJDY accounts, primarily due to their high population and the significant engagement of their populations in agriculture and allied activities, benefiting from subsidies and financial support through these accounts
- Lakshadweep, Ladakh, Andaman and Nicobar Islands, Sikkim, and Puducherry are the five states or union territories with the lowest number of PMJDY accounts, mainly due to their small population and geographical challenges in setting up banking infrastructure

CONCLUSION

This research paper on financial inclusion in India highlights the significant progress achieved, particularly through flagship initiatives like the Pradhan Mantri Jan Dhan Yojana (PMJDY) and Pradhan Mantri Mudra Yojana (PMMY), as evidenced by the surge in the Financial Inclusion Index and the opening of over 540 million bank accounts. While account ownership has seen remarkable growth, the paper underscores the persistent challenges in ensuring active usage of these accounts and broadening access to other crucial financial services such as credit and insurance. Furthermore, the analysis of PMJDY reveals that states with higher populations and a significant agricultural economy tend to have the highest number of accounts, whereas smaller and geographically challenging regions have the lowest. Similarly, PMMY loan disbursements are concentrated in states with strong entrepreneurial ecosystems and proactive financial inclusion policies, while states with limited infrastructure and business density receive the lowest amounts. The study emphasizes the necessity of a continued and comprehensive approach to bridge the remaining gaps and fully leverage financial inclusion for India's economic development.

SUGGESTIONS

- The paper highlights that despite a significant increase in bank account ownership under PMJDY, the active usage of these accounts remains a key focus. A suggestion here is to implement strategies that encourage regular transactions and engagement with these accounts, moving beyond mere dormancy. This could involve promoting digital transactions, financial literacy initiatives, and tailoring products to meet user needs.

- The mention of the JAM trinity (Jan Dhan, Aadhaar, and Mobile) implies the importance of leveraging technology to further financial inclusion. Future directions could involve promoting digital financial literacy, expanding the reach of mobile banking and digital payment systems, and ensuring cybersecurity and data privacy for digital financial transactions.
- The analysis of PMJDY accounts and reveals significant regional variations. The paper implicitly suggests the need for targeted interventions in states and union territories with lower levels of financial inclusion, and improving banking infrastructure and accessibility in remote and underserved regions.

LIMITATIONS

- The findings are dependent on the availability and quality of the secondary data from government reports and financial institutions. The researchers have no direct control over how this data was collected, its accuracy, or its completeness.
- The analysis is restricted to the variables included in the existing datasets. The researchers might not be able to explore other potentially relevant factors due to the unavailability of corresponding data.
- Secondary data might have a time lag, meaning the analysis reflects past situations rather than the most current real-time scenario. The data presented goes up to March 2023 for PMJDY accounts

REFERENCES

- Khan, I., Sahu, M. (2025). Enhancing financial inclusion in India: The impact of socioeconomic and macroeconomic factors. Journal of Financial Economic Policy, 17(2), 270-294.
- Dash, A., & Mohanta, G. (2024). Fostering financial inclusion for attaining sustainable goals: what contributes more to the inclusive financial behaviour of rural households in India. Journal of Cleaner Production, 449, 141731.
- Singh, R., & Mallick, H. (2024). Financial inclusion in India: an analysis from the user-side perspective. International Journal of Social Economics, 51(9), 1167-1181.
- data.gov.in
- Population of Indian states 2025 - StatisticsTimes.com
- Press Note Details: Press Information Bureau
- 10 Years of PM Mudra Yojana (PMMY): Know about the scheme, Indian states with the highest loan disbursement, and more.

Inflation and Sustainable Economic Growth: Case Studies in India on Recent Empirical Data

Prabhat Kumar[1] & Dr. Shashi Lata Singh[2]

Introduction

Inflation and its impact on sustainable economic growth have long been a topic of concern for policymakers, economists, and researchers around the world. As one of the emerging economic powerhouses, India presents an intriguing case study for understanding the complex relationship between inflation and economic development. Sustainable growth requires inflation to be controlled, as high inflation can undermine the benefits of economic growth by reducing purchasing power and exacerbating inequality (Khan & Senhadji, 2001). Over the past few decades, India has experienced periods of both high and low inflation, with the former posing significant challenges to the country's quest for sustained and inclusive growth. Elevated levels of inflation can erode the purchasing power of consumers, discourage investment, and undermine the international competitiveness of domestic industries, ultimately hampering the long-term economic prosperity of the nation (Kose et al., 2019).

Against this backdrop, this study aims to provide a comprehensive analysis of the inflation-growth nexus in the Indian context, with a particular focus on identifying the key drivers of inflation and their implications for sustainable economic development. The research will draw upon a range of macroeconomic indicators, including GDP growth, consumer price indices, and monetary policy variables, to elucidate the complex dynamics at play.

By adopting a case study approach, the paper will delve into the unique experiences of different regions and sectors within India, providing a nuanced understanding of how the interplay between inflation and growth manifests in diverse economic landscapes (Jain & Malhotra, 2020). This granular analysis will enable the formulation of targeted policy recommendations to address the challenges posed by inflationary pressures and foster a more resilient and inclusive growth trajectory for the Indian economy.

The findings of this study will contribute to the existing body of knowledge on the inflation-growth relationship, offering valuable insights for policymakers, central bankers, and development practitioners not only in India but also in other emerging economies facing similar macroeconomic challenges. Furthermore, the research will underscore the importance of implementing coordinated monetary and fiscal policies, as well as structural reforms, to maintain price stability and promote long-term sustainable growth (Rangarajan & Mohanty, 2020).

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Literature Review

The relationship between inflation and economic growth has been a subject of extensive research and debate among economists and policymakers. While some studies have highlighted the potential adverse effects of high inflation on long-term economic development, others have argued that moderate levels of inflation may not necessarily be detrimental to growth, particularly in the context of developing economies.

One strand of the literature has focused on the theoretical underpinnings of the inflation-growth nexus. The classical view, as articulated by Friedman (1963), posits that high and volatile inflation can distort relative prices, discourage investment, and erode the purchasing power of consumers, ultimately hampering economic growth. In contrast, the Keynesian perspective suggests that a certain degree of inflation may be necessary to stimulate aggregate demand and promote full employment, thereby contributing to economic expansion (Samuelson & Solow, 1960).

Inflation-targeting frameworks have been widely adopted by central banks in emerging economies to achieve price stability, including by the RBI in 2016. Studies have shown that inflation targeting can anchor inflation expectations and contribute to sustainable growth by providing a stable economic environment (Mishkin, 2000). India's experience offers a unique case for understanding the inflation-growth dynamics in an emerging economy.

Empirical studies on the inflation-growth relationship in the Indian context have yielded mixed results. Rangarajan and Mohanty (2020) found that moderate levels of inflation (around 4-6%) are conducive to economic growth in India, but that higher inflation rates beyond this threshold can have a detrimental impact. Similarly, Jain and Malhotra (2020) observed a nonlinear relationship between inflation and GDP growth, with the optimal inflation rate estimated to be around 5-6%.

In contrast, other researchers have highlighted the adverse consequences of high inflation on India's sustainable development. Kose et al. (2019) argued that elevated inflation can undermine the international competitiveness of domestic industries, leading to a decline in exports and impairing long-term growth prospects. Furthermore, Bawa and Abdullahi (2012) found that high inflation rates in India are often accompanied by increased income inequality, which can undermine the inclusiveness and equity of the growth process.

The existing literature has also emphasized the importance of addressing the underlying drivers of inflation in India, such as supply-side bottlenecks, rising input costs, and fluctuations in global commodity prices (Rangarajan & Mohanty, 2020). Effective policy interventions, including coordinated monetary and fiscal policies, as well as structural reforms, have been identified as crucial for maintaining price stability and fostering sustainable economic growth (Jain & Malhotra, 2020).

Overall, the literature review suggests that the relationship between inflation and economic growth in India is complex and multifaceted, warranting a comprehensive analysis that takes into account the heterogeneity of regional and sectoral experiences.

Methodology

This study employs a mixed-method approach, combining quantitative data analysis with qualitative case study examination. The data sources include: Inflation and GDP growth rates from

the World Bank and RBI databases (2000–2022). Policy reports and RBI statements. Case studies of specific economic events, including the 2008 global financial crisis, the 2016 inflation-targeting framework, and the 2020 COVID-19 pandemic. The empirical data is analysed using statistical methods to explore correlations and trends, and case studies illustrate the real-world implications of inflation policies on growth.

The data on inflation rates for the periods 2000–2011, 2016–2022, and 2020–2022 was derived from official sources such as the Reserve Bank of India (RBI) and World Bank. This data captures the fluctuations in the consumer price index indicating the rate of price increases. The other data has been taken from International Monetary Fund (IMF), World Bank, and RBI economic surveys and MOSPI.

Analysis and Results

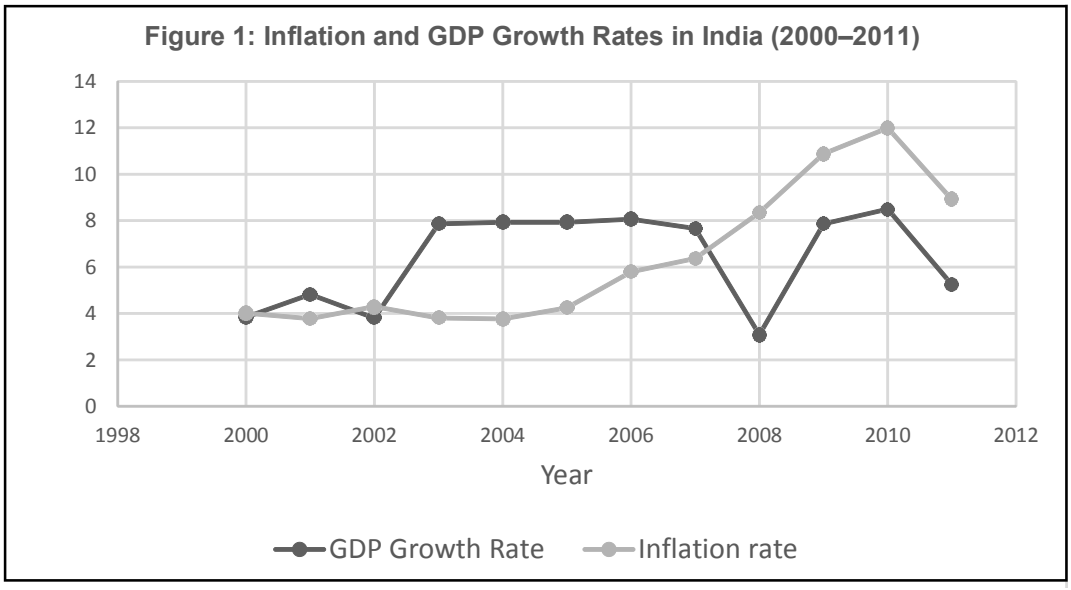
Case Study 1: Global Financial Crisis (2008-2011)

Objective: Illustrates the fluctuation in inflation and GDP growth rates over the period marked by the global financial crisis.

During the global financial crisis, India experienced significant inflation due to global supply shocks and a depreciating rupee. Inflation peaked at around 11.98% (see Figure 1), driven by rising food and fuel prices, which disproportionately affected lower-income households (RBI, 2012).

This period illustrates how global economic conditions can influence domestic inflation, necessitating policy measures that may impact growth. While inflation was eventually controlled, growth rates remained below pre-crisis levels, underscoring the complex trade-off between inflation control and growth.

Figure 1: Inflation and GDP Growth Rates in India (2000–2011)



Source: International Monetary Fund, International Financial Statistics, World bank.

GDP Growth Rate (Blue Line), From 2000 to 2007, GDP growth rate displays steady upward momentum, peaking near 9% in 2007. A sharp decline is evident during the 2008 global financial crisis, where GDP growth drops to 3.08% in 2008. Post-crisis, growth rebounds quickly, peaking at 11.98% in 2010, before slightly slowing down in 2011. India experienced robust economic growth during the pre-crisis period, but external shocks (2008 crisis) significantly impacted performance. The rapid recovery post-2008 reflects resilience driven by domestic policy measures and global economic recovery.

Inflation Rate (Orange Line), Inflation was relatively low in the early 2000s, averaging around 4–5%. A steady increase is observed starting in 2006, peaking near 11.98% in 2010, before declining slightly to 8.14% in 2011. Inflation remained manageable during the early 2000s but surged significantly post-2006, likely due to rising global commodity prices, food inflation, and supply-side constraints.

Relationship Between Inflation and GDP Growth

Positive Correlation Between 2000–2007, a positive correlation is visible as both inflation and GDP growth increase simultaneously, suggesting that inflation during this period might have been demand-driven, reflecting higher economic activity.

The 2008 financial crisis disrupted the positive trend, with GDP growth plummeting while inflation remained relatively stable (around **5–6%**). This indicates the crisis impacted output more significantly than price levels.

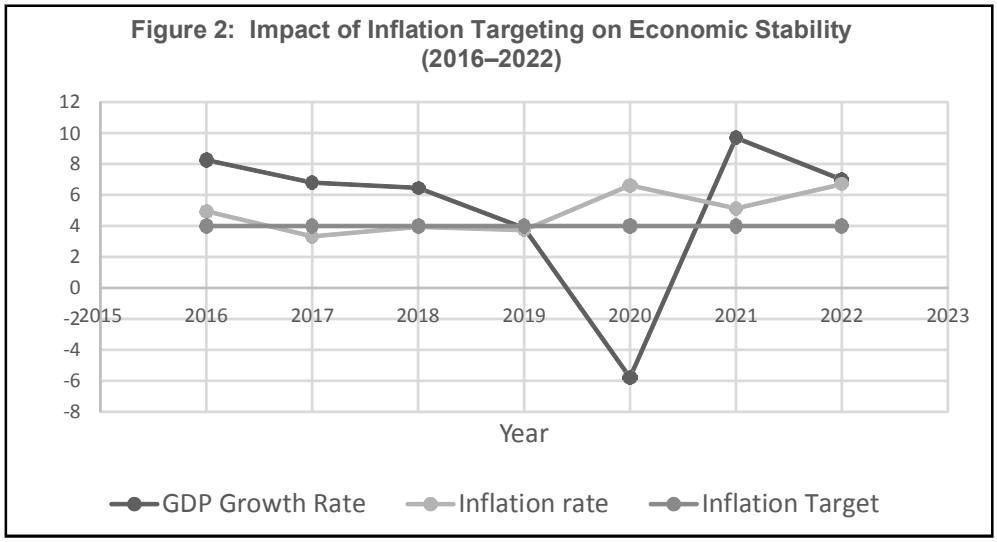
Divergence Post-Crisis After 2009, GDP growth sharply increased, peaking in 2010. However, inflation also spiked during this period, signalling potential overheating of the economy and supply-side issues.

Case Study 2: Implementation of Inflation Targeting (2016)

Objective: Shows the effect of India's inflation-targeting policy implemented in 2016, reflecting how inflation stabilized within the target range, alongside a steady GDP growth trajectory.

In 2016, India adopted a formal inflation-targeting framework, setting a target of 4% with a 2% tolerance band (RBI, 2016). This move followed recommendations from various studies suggesting that stable inflation contributes to sustainable growth (Mishkin, 2000). Since then, inflation has remained within the target range most years, with a corresponding stabilization in GDP growth (Figure 2).

The adoption of inflation targeting helped anchor expectations and improve investor confidence, contributing to sustainable growth. For example, in 2018, inflation was controlled at 3.93%, while GDP growth remained robust at around 6.45% (World Bank, 2019). This case highlights the success of inflation targeting in maintaining economic stability and promoting growth.



Source: International Monetary Fund, International Financial Statistics, World bank

GDP Growth Rate (Blue Line), Gradual decline in GDP growth, from 8.25% (2016) to 4.04% (2019). A sharp contraction to -5.7%, reflecting the economic impact of the COVID-19 pandemic. Strong recovery, with growth reaching 9.68% (2021) before stabilizing at 6.09% (2022). Inflation Rate (Orange Line), Remained relatively stable near the inflation target (grey line) of 4% with a tolerance range of ±2%. Inflation fluctuated between 3.3% and 4.9%, aligning closely with the target. A slight upward trend in inflation post-2020, peaking at 5.13% (2021), possibly due to supply-chain disruptions and increased demand.

Impact of Inflation Targeting on Economic Stability-

Pre-Pandemic (2016–2019), Inflation-targeting policies contributed to stable inflation, providing a predictable environment for investment and consumption. However, GDP growth gradually slowed, reflecting underlying structural challenges.

Pandemic Period (2020), Inflation targeting minimized the risk of hyperinflation despite the severe economic contraction. Monetary and fiscal measures ensured a quick recovery without destabilizing inflation.

Post-Pandemic (2021–2022), Inflation rose modestly, likely due to global supply-chain disruptions and recovery-driven demand. Nonetheless, it remained within acceptable limits, reflecting the policy's success.

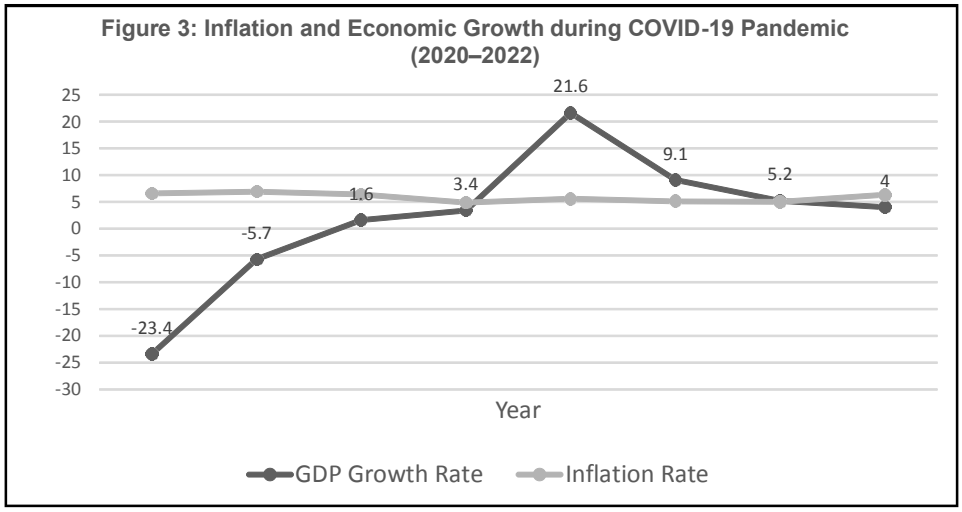
Case Study 3: COVID-19 Pandemic and Economic Response (2020-2022)

Objective: Highlights the fluctuations in both inflation and GDP growth during the COVID-19 pandemic, showing the temporary rise in inflation as the RBI adjusted interest rates to stabilize the economy.

The COVID-19 pandemic led to severe disruptions in global supply chains, causing inflationary pressures while sharply reducing economic growth. India's GDP contracted by 23.4% in 2020, while inflation remained elevated at around 6.57% due to supply chain constraints and increased fuel prices (RBI, 2021).

In response, the RBI implemented accommodative monetary policies, reducing interest rates and injecting liquidity to support the economy. While this increased inflationary pressures, it was essential for stabilizing the economy (Figure 3).

The COVID-19 response demonstrates the trade-offs between inflation control and growth support in times of crisis. Though inflation rose above the target, it was managed effectively to mitigate economic fallout, emphasizing the need for flexible policy responses to balance inflation with growth.



Source: RBI and MOSPI.

GDP Growth Rate (Blue Line), 2020 Q1–Q2, GDP growth saw a sharp contraction from 6.57% (Q1) to -23.4% (Q2), reflecting the severe impact of the first wave of the pandemic, including lockdowns, supply chain disruptions, and reduced demand. 2020 Q3–2021 Q1, A dramatic recovery, with growth rebounding to 21.6% (Q1 2021) after the reopening of the economy and government stimulus measures. 2021 Q2–Q4, Growth moderated to a range of 5–9%, reflecting normalization of economic activity. The sharp contraction and subsequent recovery highlight the pandemic's unprecedented impact and the resilience of the Indian economy. Post-recovery stabilization suggests effective policy interventions but also signals reduced momentum.

Inflation Rate (Orange Line), 2020 Q1–Q2, Inflation increased slightly from 6.57% (Q1) to 8.39% (Q2), driven by supply-chain disruptions and higher food prices during lockdowns. 2020 Q3–2021 Q4, Inflation stabilized around the 5–6% range, staying close to the upper limit of the inflation-targeting framework (4% ±2%). Inflation remained relatively stable despite severe economic disruptions, reflecting effective monetary policy and supply-side adjustments. Food and fuel prices likely contributed to inflationary pressures during the peak pandemic period.

Interplay Between GDP Growth and Inflation

2020 Q1–Q2 (Lockdown Phase), GDP experienced an unprecedented contraction while inflation slightly increased, showing demand compression and supply-side constraints driving inflation. 2020 Q3–2021 Q1 (Recovery Phase), The rebound in GDP growth was not accompanied by significant inflationary pressures, suggesting that the recovery was driven by pent-up demand and government interventions rather than overheated markets. 2021 Q2–Q4 (Stabilization Phase), Both GDP growth and inflation stabilized, indicating normalization of economic activity. However, inflation remained slightly above the target, reflecting lingering supply-side challenges.

Policy Recommendations & Economic Implications

Sustained Growth & Structural Reforms

- Focus on long-term growth through supply chain improvements, labour market efficiency, and investments. Address vulnerabilities in the informal economy and supply chains to enhance resilience.

Inflation Management & Control

- Maintain vigilance to keep inflation within target limits. Address global commodity pressures, domestic supply disruptions, and structural bottlenecks to prevent overheating.

Crisis Preparedness

- Strengthen healthcare systems and economic safety nets to reduce disruptions during future shocks.

Policy Effectiveness

- **Fiscal Stimulus**: Cash transfers and infrastructure investments accelerated GDP recovery.
- **Monetary Policy**: RBI ensured liquidity and stability, balancing inflation and growth effectively.

Inflation Targeting Success

- India's inflation-targeting framework stabilized the economy during crises, boosting investor confidence and fostering sustainable growth.

Balancing Growth and Inflation

- Reduce GDP growth volatility and maintain inflation stability through complementary structural reforms and countercyclical policies like stimulus measures and interest rate cuts.

Post-Pandemic Focus

- Support economic recovery while addressing rising inflationary pressures post-2020 for sustainable growth.

Conclusion

The charts collectively highlight India's economic journey through significant events like the 2008 financial crisis, the adoption of inflation targeting in 2016, and the COVID-19 pandemic.

Inflation targeting proved instrumental in maintaining price stability, even during periods of crisis, fostering economic resilience and investor confidence. While inflation remained within target ranges, GDP growth showed considerable fluctuations, especially during the pandemic.

These findings underscore the importance of balancing growth with inflation control to ensure long-term economic stability. Structural reforms, effective monetary policies, and preparedness for future crises remain critical to sustaining robust and inclusive economic development in India.

References

1. Akerl of, G. A., Dickens, W. T., & Perry, G. L. (1996). The macroeconomics of low inflation. *Brookings Papers on Economic Activity, 1996*(1), 1–59.
2. Bawa, S., & Abdullahi, I. S. (2012). Threshold effect of inflation on economic growth in Nigeria. *CBN Journal of Applied Statistics, 3*(1), 43–63.
3. Friedman, M. (1963). *Inflation: Causes and consequences.* Bombay: Asia Publishing House.
4. Friedman, M. (1970). The counter-revolution in monetary theory. *Institute of Economic Affairs.*
5. Jain, R., & Malhotra, G. (2020). Inflation and economic growth in India: An empirical analysis. *Journal of Public Affairs, 20*(2), e2023.
6. Joshi, V. (2021). Inflation, growth, and sustainability in India. *Indian Economic Journal.*
7. Khan, M. S., & Senhadji, A. S. (2001). Threshold effects in the relationship between inflation and growth. *IMF Staff Papers, 48*(1), 1–21.
8. Kose, M. A., Nagle, P., Ohnsorge, F., & Sugawara, N. (2019). *Global waves of debt: Causes and consequences.* The World Bank.
9. Mishkin, F. S. (2000). Inflation targeting in emerging market economies. *American Economic Review, 90*(2), 105–109.
10. Rangarajan, C., & Mohanty, D. (2020). *Monetary policy, inflation, and growth in India.* Oxford University Press.
11. Reserve Bank of India. (2016). *Inflation targeting framework.* RBI Annual Report.
12. Samuelson, P. A., & Solow, R. M. (1960). Analytical aspects of anti-inflation policy. *The American Economic Review, 50*(2), 177–194.
13. World Bank. (2019). *India's economic outlook.* World Bank Economic Report.

A Comparative Study on Public Debt and Fiscal Stability in Uttar Pradesh: FRBM Act 2003 and FRBM Review 2016

Prachi Verma[1] & Prof. Vinod Singh[2]

ABSTRACT

This paper presents a comparative picture of public debt and fiscal stability in Uttar Pradesh under two pivotal phases of fiscal governance: implementation of FRBM Act 2003 and its subsequent revisions in 2016. During the initial phase of FRBM Act 2003 which was focused to entrenched fiscal discipline by diminishing fiscal deficits and enhancing debt sustainability, Uttar Pradesh attaining significant success in revenue surplus and deficit management. Nonetheless, obstacles persisted in addressing increasing debt-to-GSDP ratios and inherent fiscal vulnerabilities. The 2016 review implemented more stringent fiscal deficit restrictions, defined debt limits and improved compliance measures to mitigate increasing fiscal risks and external shocks such as COVID-19 pandemic. This paper examines fiscal indicators such as fiscal deficit, revenue surplus and debt dynamics before and after the 2016 amendments, emphasizing enhancements, compliance deficiencies and the influence of external shocks on fiscal stability. The result highlights the necessity for flexible fiscal regulations that ensure debt sustainability while allowing for development and crisis management in changing the economic landscape of Uttar Pradesh.

Keywords: *Fiscal Deficit, FRBM, GSDP, Public Debt, stability.*

Introduction

Uttar Pradesh, the most populous state in India, has historically encountered significant budgetary issues. In the decades preceding the FRBM Act of 2003, the fiscal condition of the state had progressively deteriorated. From 1991 to 2002, UP consistently recorded high levels of revenue and fiscal deficits. As stated in reports of the RBI and the CAG, the state's gross fiscal deficit averaged around 5.5% of the GSDP during the 1990s, peaked at 6.8% in the fiscal year 2000–2001. The ever-expanding revenue deficit, an indicator showing how much the government's earnings fell short of expenditures, was notably troubling as it consistently surpassed 3% of the GSDP in the late 1990s, an unpleasant state of fiscal affairs that raised worries about long-term financial stability and sustainability.

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The outstanding debt of the UP escalated drastically during this era. The debt as a % of GSDP for UP expanded enormously in 2002-2003, greatly surpassing recommended thresholds. This unstable turn of debt, combined with ineffective allocation of public funds and expanded bureaucracy, significantly constrained the state's ability to finance crucial infrastructure and social services. At the same time, capital outlays were mainly focused on rigid costs like wages, pensions, and interest with scarce resources left for growth initiatives. Some expenditures failed to generate returns, like constructions that went over budget. Meanwhile, neglected needs accumulated from underinvestment in schools and healthcare. To upgrade the situation, authorities acknowledged the requirement to re-evaluate priorities and control expenses to restore fiscal stability.

The Government of India introduced the Fiscal Responsibility and Budget Management Act in 2003 to address pressing economic challenges. This reform aimed to inculcate fiscal prudence at both central and state levels. The triple goals of the FRBM Act were –

a. To systematically decrease revenue and fiscal shortfalls within a defined timeframe.

b. To establish macroeconomic stability through fiscal consolidation.

c. To establish fiscal discipline through transparent and accountable public finance operations.

Uttar Pradesh adopted its State FRBM Act in 2004 (effective from 5 July 2004) which marked as a turning point. The Act prescribed specific targets: to achieve a balanced budget i.e., revenue deficit of zero by 2008-09 and restricted fiscal deficit within 3% of GSDP. The initial years saw significant progress. Uttar Pradesh reduced its fiscal shortfall to 2.9% in 2006-07 and even registered revenue surplus in some years. By 2007-08, the state's debt-to-GSDP ratio had diminished to 36.4%, evidencing initial success in fiscal consolidation efforts.

However, the sustainability of these early gains was questioned by the global financial crisis of 2008–09, and subsequent increases in social sector expenses, pay commission awards, and off-budget liabilities. By 2015–16, UP's shortfall had once more extended, arriving fiscal deficit at 5.22% of GSDP and surpassing the constrained target set by the FRBM. Hidden fiscal risks had created as off-budget borrowings and guarantees expanded. Moreover, the growing necessities for infrastructure investment and increasing consistent expenses started to strain the state's fiscal capacity.

The NK Singh Committee undertook a thorough review in 2016 of India's fiscal policy framework, FRBM Act 2003 in response to notable shifts. Their reassessment aimed to made the focus on the increasing complexities within the nation's financial landscape while safeguarding against increasing fiscal burdens. Their review ultimately updated guidelines to empower proactive stabilization along with the escape clauses while preserving debt sustainability for future economic emergencies.

While Uttar Pradesh's fiscal policy has unfolded over time, transitioning from pre-FRBM conditions to more stable post-FRBM consolidation and subsequent refinement, the state's financial journey emphasizes the importance of strong fiscal frameworks for responsible governance, manageable debt levels, and achieving long-term development targets.

Objective

1. To compare the public debt indicators- fiscal deficit, revenue deficit and debt-GSDP ratio trends in Uttar Pradesh under two crucial phases- FRBM Act 2003 and Post Review FRBM Act 2016.

Research Methodology

This paper compares the fiscal conditions of Uttar Pradesh. This will fall under the category of descriptive and empirical type of research design. This paper is based on the mixed method approach-qualitative and quantitative approach too. Secondary resources to collect all the information and data from previous studies and published journals has been used.

Literature Review

Aziz G. (2010) The situation worsened until 1998-99, when efforts began to improve fiscal discipline, leading to better financial parameters in the new century. However, this progress may not be stable due to poor capital expenditure and low interest receipts from loans, which have been below one percent since the early nineties. While the Twelfth Finance Commission's debt relief package helped correct fiscal issues by consolidating loans and offering a debt write-off, concerns remain about the state's revenue structure.

Makin A., Arora R. (2012) This paper looks at fiscal sustainability in India's states, which vary in economic development. It compares fiscal performance and creates formulas to assess public debt sustainability, identifying states with stabilized debt and calculating the primary budget balances needed for a 25% debt to GSDP ratio over three, five, and ten years.

Maurya N. (2019) The present study critically evaluates the state finances of Uttar Pradesh from 2005-06 to 2015-16. It is sponsored by the Fifteenth Finance Commission, Government of India, and collected secondary data from various sources. A chapter discusses the analysis of fiscal and revenue deficits, the debt/GSDP ratio, and debt usage. It examines the composition of the state's debt, including market borrowing, central government debt, and public account liabilities. It also analyses the state's contingent liabilities and presents the implementation of the FRBM Act and MTFP analysis of various departments.

Pandey S. (2021), The paper was evaluated the analysis of the policies to establish fiscal sustainability in the state, Uttar Pradesh. It also evaluates that the fiscal sustainability measures have affected economic growth of state or not. And it concludes that UP has high focus on fiscal sustainability and the state has highest population and large in area which becomes barrier to create an investment atmosphere because of the absence of infrastructure and other facilities.

Misra S., Gupta K., Trivedi P. (2021) This study looks at how fiscal shocks can worsen state (UP) debt in India due to contingent liabilities. It finds that while the debt is currently sustainable, there are signs of possible future issues. States' guarantees could harm debt sustainability. The study recommends reviewing fiscal rules and improving transparency about contingent liabilities.

Pujari D. (2022) This paper examines the impact of the FRBM Act on public borrowing and fiscal balance in India, focusing on trends in public expenditure and debt since the Act's introduction. The results show that the FRBM Act significantly affects the gross fiscal deficit but not public debt. GDP growth negatively affects the fiscal deficit, while population growth positively impacts it. Efficient debt management is vital for maintaining budget and financial stability.

Gupta M., Mahesh M., Azharuddin (2024) This study proposes a way to evaluate public sector borrowing needs for selected Indian states to understand their fiscal health better. It measures

off-budget liabilities and examines guarantees in accordance with their FRBM Acts. The analysis focuses on seven states Telangana, Tamil Nadu, Uttar Pradesh, Punjab, West Bengal, Rajasthan, and Maharashtra from 2015-16 to 2021-22, chosen based on fiscal performance and power sector debt. The study notes the use of off-budget operations and suggests a standard method for reporting them for improved fiscal transparency and management.

Overview of the FRBM Act 2003 and Its Fiscal Targets

The Fiscal Responsibility and Budget Management (FRBM) Act of 2003 marked a crucial point for India's fiscal management, aiming to instate enduring fiscal prudence and enhance macroeconomic stability. Realizing the detrimental impacts of perpetual deficits and increasing public debt, this law established a foundation of provisions to guarantee the management of financial policy at both the levels of government i.e., central and state.

Key Provisions of the FRBM Act 2003

1. Elimination of Revenue Deficit by March 31,2008.
2. Reduction of Fiscal Deficit targeted at 3% of GSDP.
3. To ensure a sustainable debt-to-GSDP ratio through prudent borrowing practices. No explicit debt ceiling for state was prescribed. Later on, by the Twelfth Finance Commission, the target for state debt-to-GSDP ratio at ~30% by 2009-10 was recommended.
4. Mandatory for governments to publish Medium Term Fiscal Policy Statements (MTFPS), which helps to improve transparency and accountability.
5. Prohibited the borrowings from the RBI to monetize the deficit, except under exceptional circumstances.

Overview of Post-Review Amendments in FRBM Act in 2016

The FRBM framework underwent major revisions after a committee reviewed which led by N.K. Singh, this panel suggested changes to bring more balance between fiscal discipline, social spending, and economic flexibility according to the recent financial stresses and priorities. Careful reconsideration was clearly needed to help the framework evolve with the times as circumstances evolve and objectives shift.

Key Provisions of the Post Review FRBM Act 2016

1. Retained the fiscal deficit target of 3% of GSDP for states with the flexibility of additional borrowing space of 0.5% under specific terms and conditions. The criteria for additional borrowing were decided by the Finance Commission-
    a. 0.25% borrowing, if the interest payments are less than or equal to 10% of revenue receipts of that particular state.
    b. 0.25% borrowing, if the state has maintained the debt sustainability path or create revenue surplus.

The flexibility of this provision provided a cap of 0.5% which leads the target of fiscal deficit at 3.5%. For Uttar Pradesh, it became a crucial which helps to create infrastructure and increase social programs.

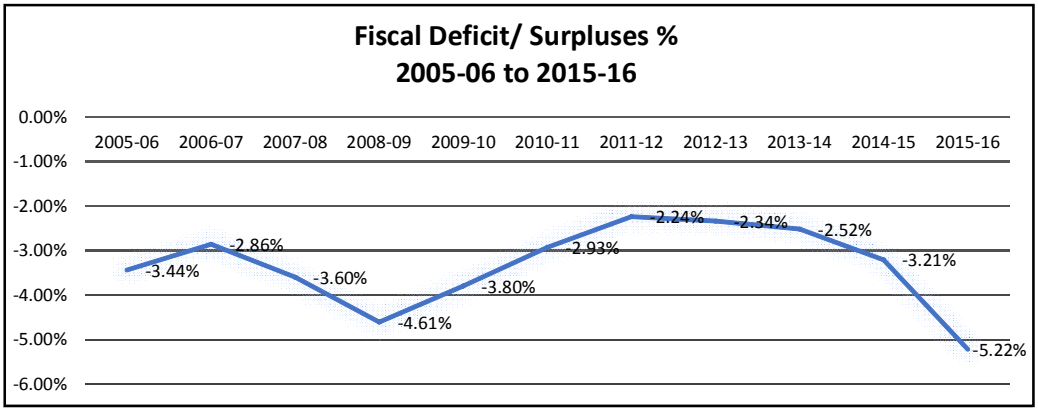
1. Explicit debt ceiling at 30% of GSDP by 2019-2020 and the combined debt ceiling for the centre a d state at 60% of GDP.
2. Stricter compliance and transparency measures.
3. Escape clause which allows the centre and state to deflect from the mentioned fiscal deficit targets with the additional borrowing of 2% which increase the fiscal deficit target from 3% to 5%.

Comparative Fiscal Performance Analysis

After the implementation of the FRBM Act in July, 2004, Uttar Pradesh made a significant progress in fiscal indicators like fiscal deficit, revenue deficit and debt-to-GSDP ratio in the initial years. For the analysis, the time period is divided into 2 phases-

1. From 2005-06 to 2015-16: Pre FRBM Act
2. From 2016-17 to 2023-24: Post Review FRBM Act

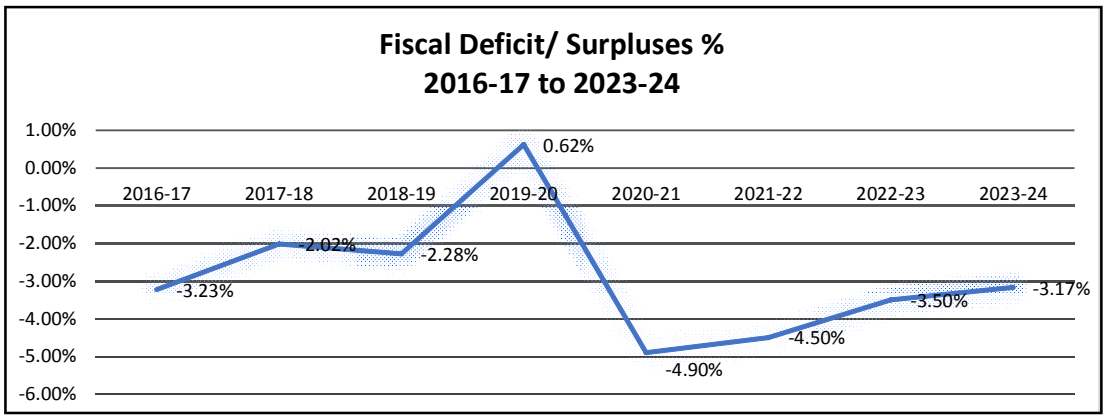
Fiscal Deficit Trends



Data **Source:** RBI- State Finances: A Study of Budgets, CAG: State Accounts, UP Budget Accounts

It was reduced from 5.9% of GSDP in 2003-04 to 2.86% in 2006-07, which belongs within the FRBM target of 3% of GSDP. But the success of achieving the target in early years was questioned by the global financial crisis, 2008 which again increased the fiscal deficit 4.61% of GSDP, more than the threshold of 3%.

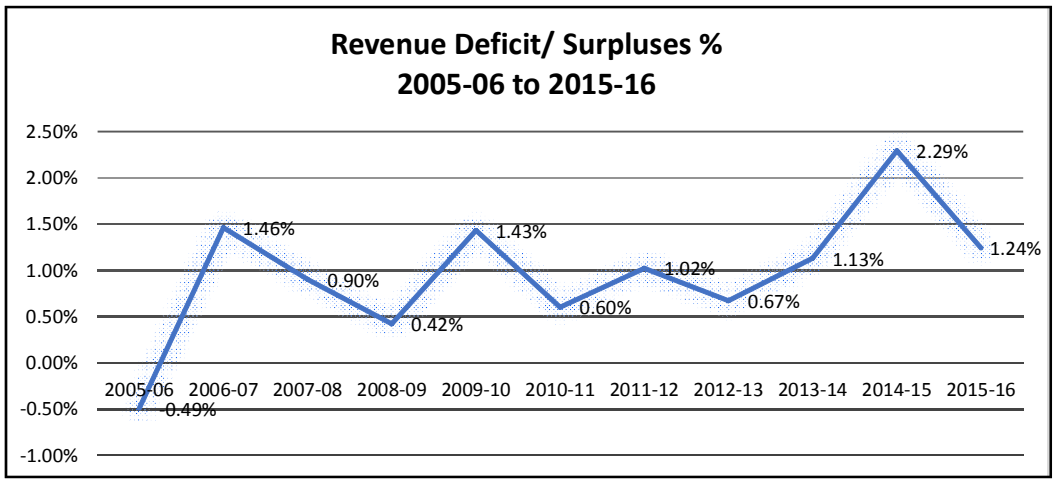
After the crisis 2008, the fiscal deficit remained within the threshold of FRBM target but the consolidation is not sustainable. It again peaked at 5.22% in 2015-16 which showed sharp deviation due to UDAY scheme cost i.e., UP government took ~75% of debt for the state power distribution companies.



Data **Source:** RBI- State Finances: A Study of Budgets, CAG: State Accounts, UP Budget Accounts

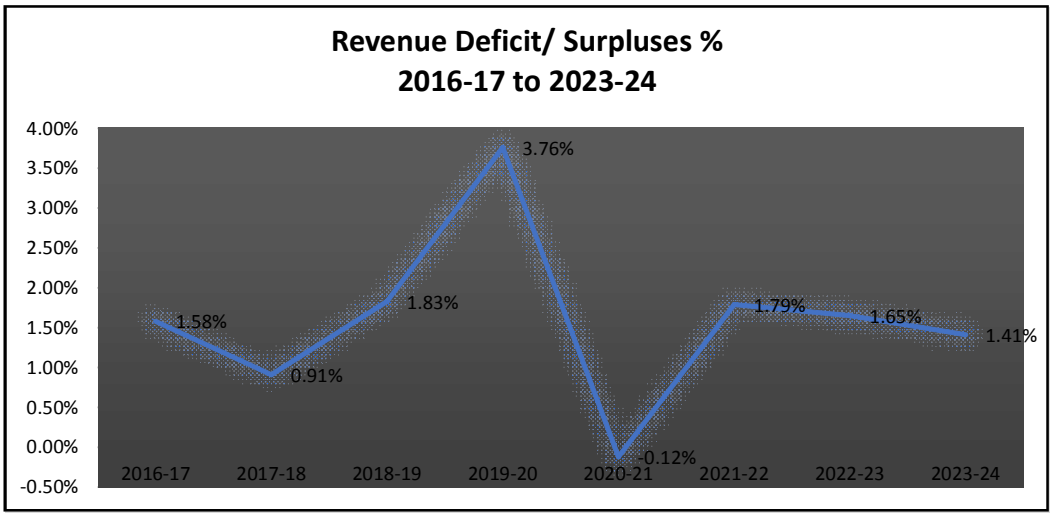
After the FRBM review in 2016, more flexible and credible norms had been introduced to extend the sustainability of the fiscal indicators. It was 3.23% in 2016-17 and it remained within or approx. the target of FRBM at 3%. In 2019-20, the fiscal deficit changed into fiscal surplus at 0.62% of GSDP but due to external shock- COVID-19 it again turned into fiscal deficit at 4.90% of GSDP, invoked escape clause of FRBM Review 2016 which allowed the threshold at 5%. In 2023-24, fiscal deficit was 3.17%, near the revised FRBM act target because state was focused on enhancing its own tax revenue, digital initiatives, limited non-essential expenses to bring back deficit within the FRBM mandate range of 3-3.5%.

Revenue Deficit Trends



Data **Source:** RBI- State Finances: A Study of Budgets, CAG: State Accounts, UP Budget Accounts

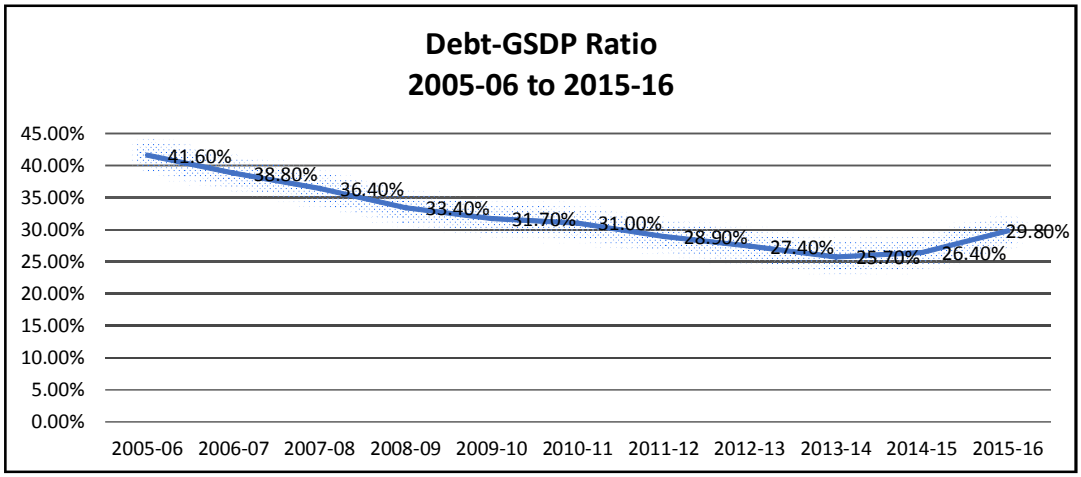
The transition from revenue deficit in 2003-04 to revenue surplus of 1.46% of GSDP in 2006-07, early achievement than the anticipated target of FRBM was attained through the compressed expenditure, increased tax devolution from the centre etc. till 2015-16.



Data **Source:** RBI- State Finances: A Study of Budgets, CAG: State Accounts, UP Budget Accounts

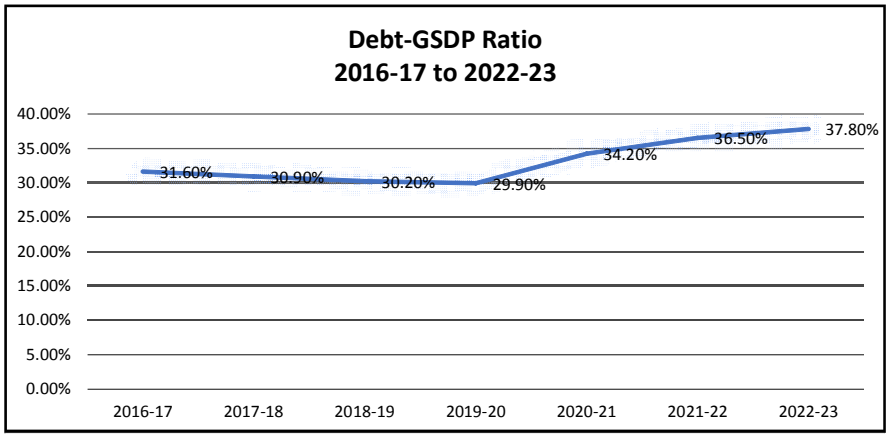
The path of revenue surplus keeps going on with high revenue surplus of 3.76% in 2019-20. Then, an outlier was noticed in the trend in 2020-21 due to COVID-19 pandemic led to steep revenue shortfalls and showed the fragility of revenue surplus of UP at the time of external shocks due to sudden rise in social welfare expenses like medical relief, free food, job programs etc.

Debt-GSDP Ratio Trends



Data **Source:** RBI- State Finances: A Study of Budgets, CAG: State Accounts, UP Budget Accounts

The outstanding debt-to-GSDP ratio was very high in initial years but it keeps declining till 2014-15. And it also achieved the target of FRBM of debt-GSDP ratio at ~30% in 2009-10 through moderate committed expenses, revenue growth through better tax administration etc. But after the UDAY scheme, it increased in 2015-16 to 29.80%



Data **Source:** RBI- State Finances: A Study of Budgets, CAG: State Accounts, UP Budget Accounts

After 2016, debt-GSDP ratio was continuously rising due to multiple factors- increased spending on infrastructure, expenditure on social welfare schemes, contingent liabilities and in 2019-20, an external crisis- COVID-19 which marked a significant rise in debt-GSDP ratio and it breaches the FRBM target.

Policy Recommendations and Implications

The requirement for a comprehensive and flexible fiscal policy is highlighted by Uttar Pradesh's fiscal trajectory, which is characterized by irregular coherence to FRBM objectives, low tax effort, growing debt levels, and shock susceptibility. The following policy suggestions seek to improve budgetary restraint while maintaining adaptability for welfare and growth requirements.

1. Adaptive Fiscal Rules with Credible Escape Clauses and time bound correction trajectories.
2. Prepare Medium Term Fiscal Plan with rolling targets according to the current fiscal conditions.
3. Broadening tax base, enhance revenue base by itself and decrease reliance on the central transfers.
4. Invest in tax administration reforms and keep the current record of transactions which leads to increase in tax to GSDP ratio and it helps in increasing the investment in development requirements.
5. To increase credibility and public trust, enhance the transparency by mandating the comprehensive disclosure by state, publishing the quarterly or half-yearly fiscal reports etc.

Conclusion

The enactment of the FRBM Act in 2003 was a turning point that shaped Uttar Pradesh's fiscal path going forward. It established the framework to institutionalize fiscal discipline, reduction in shortfalls, and foster an environment governed by fiscal rules. In the early years, the state realized noteworthy achievements such as sustained revenue surpluses and reduced shortfalls, symbol of a transition toward more prudent budgeting practices.

Although the revisions of the FRBM framework in 2016 included more stringent fiscal objectives, such as a 30% debt-to-GSDP ratio and a 3% fiscal deficit maximum, it also highlighted the drawbacks of a stricter fiscal rule structure. The advent of external shocks, like the COVID-19 pandemic and the UDAY scheme, demonstrated how difficult it is to stick to set goals when there is little financial flexibility and risk buffers. The necessity for flexible frameworks that can handle economic volatility while maintaining long-term sustainability during fiscal stress.

Furthermore, Uttar Pradesh's debt sustainability is still being threatened by its enduring structural fiscal flaws, which include a narrow tax base, a heavy reliance on central transfers, growing contingent liabilities, and a lack of institutional accountability. The quality and durability of fiscal consolidation are still questionable, even in the periods of numerous target compliance.

A balanced and forward-looking fiscal plan is needed in Uttar Pradesh going ahead, one that has both flexibility for counter-cyclical adjustment and credible budgetary discipline. Structural reforms that improve expenditure efficiency, increase transparency, integrate risk-based debt frameworks, and enhancing revenue collection.

References

1. *Audit Reports | Accountant General (Audit-LL) Uttar Pradesh, Lucknow*. (n.d.). https://cag.gov.in/ag2/uttar-pradesh/en/audit-report/details/48681
2. Aziz, G. (2010). Fiscal scenario of the state of Uttar Pradesh. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1544162
3. Gupta, M., Mahesh, M., Azharuddin, S. M., & National Institute of Public Finance and Policy. (2022). Analysis of public sector borrowing requirements of select Indian States. In *National Institute of Public Finance and Policy.*https://nipfp.org.in/media/medialibrary/2024/07/PSBR_Working_Paper_draft_FC_workshop_Dr._Manish_Gupta.pdf
4. MAHESHWARI, R. K., & SHARMA, S. (2022). ANALYSING THE FISCAL PERFORMANCE OF UTTAR PRADESH: a MULTIDIMENSIONAL APPROACH. In International Journal of Novel Research and Development, *International Journal of Novel Research and Development* (Vol. 7, Issue 6, pp. 436–438) [Journal-article]. https://www.ijnrd.org/papers/IJNRD2206049.pdf?utm_source=chatgpt.com
5. Makin, A. J., & Arora, R. (2012). Fiscal sustainability in India at state level. *Public Finance and Management*, *12*(4), 350–367. https://doi.org/10.1177/152397211201200403
6. Maurya, N. K. (2019). *Evaluation of state finances of Uttar Pradesh* [Report]. https://fincomindia.nic.in/asset/doc/commission-reports/15th-FC/reports/studies/evaluation/Uttar%20Pradesh.pdf
7. Maurya, N. K. (n.d.). *DEBT SUSTAINABILITY OF a SUB-NATIONAL GOVERNMENT: A CASE STUDY OF UTTAR PRADESH IN INDIA - ProQuest*. https://www.proquest.com/openview/eea26904eb70ecbf8358048291f28401/1?cbl=2030550&pq-origsite=gscholar
8. Misra, S., Gupta, K., & Trivedi, P. (2021). Sub-national government debt sustainability in India: an empirical analysis. *Macroeconomics and Finance in Emerging Market Economies*, *16*(1), 57–79. https://doi.org/10.1080/17520843.2021.1948171
9. Pandey, N. D. S. (2021). FISCAL SUSTAINABILITY AND ECONOMIC GROWTH: A CASE STUDY OF UTTAR PRADESH IN THE 21ST CENTURY. *EPRA International Journal of Economic Growth and Environmental Issues*, 5–13. https://doi.org/10.36713/epra8344
10. PRS Legislative Research. (2004). The Uttar Pradesh Fiscal Responsibility and Budget Management Act, 2004. In *The Uttar Pradesh Fiscal Responsibility and Budget Management Act, 2004*. https://prsindia.org/files/bills_acts/acts_states/uttar-pradesh/2004/2004UP5.pdf
11. Pujari, D. (2022). Impact of FRBM Act on public debt and fiscal balance in India: emerging evidence. *Economic Affairs*, *67*(1s). https://doi.org/10.46852/0424-2513.1.2022.22
12. Reserve Bank of India. (2025). *Macro and fiscal landscape of the state of Uttar Pradesh*. https://www.niti.gov.in/sites/default/files/2025-03/Macro-and-Fiscal-Landscape-of-the-State-of-Uttar-Pradesh.pdf

Financial Inclusion in India: A Region- Wise Analysis

Prof. Aloka Kumar Goyal[1] & Mantasha Aziz[2]

ABSTRACT

Financial inclusion means provide banking habit at affordable cost to the weaker section of the society. Financial inclusion is a driven force for capital formation and capital formation is the pre-condition for economic development. Per capita income of India is low that's why saving capacity and desire are also low. In this regard mobilization of small saving is needed for capital formation, it can be done through widening and deepening of financial services at affordable cost. This study is based upon two points of time such as 2015 and 2023. The paper is divided into two sections. The first section analyzes region-wise dimension indices of India, while the second section evaluates the region-wise financial inclusion index, which is based on three key dimensions- availability of financial services, financial penetration and usage of financial services. Regions are classified into four categories based on their financial inclusion scores. This paper has been structured into: Introduction, literature review, objective of the study, methodology, analysis and conclusion.

Key words: *Financial inclusion, availability, financial penetration, usage of financial services*

Introduction

The root of financial inclusion can be traced after the establishment of cooperatives in 1904 [1]. Nationalisation of bank in 1969 and 1980 with lead Bank scheme started simultaneously under multi agency and service area approach for financial services availability in rural areas. Financial inclusion is defined as the process of ensuring access of financial services timely and adequately, and credits where needed by vulnerable groups such as weaker section and low-income groups at an affordable cost (Rangarajan Committee, 2008) [2]. C Rangarajan committee observed that 73% of Indian household did not have any depth from formal banking institutions [3]. Financial inclusion plays a critical role in economic development, as exclusion from the banking system has been shown to result in a loss of up to 1 percent of GDP. According to the World Bank financial inclusion has been recognized as an enabler for 7 of the 17 sustainable development goals [4].

An inclusive financial system is crucial for any economy, whether developing or developed, for several important reasons. First, it allows for the effective allocation of productive resources. Second, it improves the ongoing management of finances. Third, it helps curb the rise of illegal or informal financial sources. In this way, an inclusive financial system promotes both efficiency and well-

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being by offering secure and safe saving options and by enabling a wide range of effective financial services. As a result, financial inclusion has become a key goal for central banks across various countries.

India is the second most populace country in the world with the population of 121crore and it contribute 16.7 percent of world population. India has sixth largest country in the world in terms of area. India has 28 states and 8 union territories, which are grouped into six distinct regions- northern, north-eastern, eastern, central, western and southern region

Literature Review

E. Dabla-Norris, Y. Deng, A. Ivanova, I. Karpowicz, F. Unsal, E. VanLeemput, & J. Wong, (2024). Financial systems in India been strengthened and progress has been made in fostering financial inclusion through the expansion of bank networks, improvements in payments systems, and the diversification of savings and credit services available for households and micro, small and medium size enterprises (SMEs)[5]. Dr. Goswami Sumi (2023) described the progress of state economy with the progress of banking sector in Uttar Pradesh [6]. Meenu Kumari (2022) in her paper has studied the correlation of financial inclusion and human development based on secondary data. This paper authored by Shantanu Ghosh and Tarak Nath Sahu (2021) delves into his analysis of financial inclusion 2003 to 2018, focusing on exploring the influence of regional classification and productivity on achieving financial inclusion. Prashant Kandari (2020) has studied interdistrict financial inclusion in Uttarakhand.

On the basis of above discussion, it is quite clear that there is no study has been done on financial inclusion status at regional level of India. So, such study is needed for policy suggestions to improve the capital formation and accelerative growth of India.

Objective

1. To find out the dimension indices of financial inclusion for Indian regions.
2. To compute the region wise financial inclusion index in India.

Methodology of the Study

Area of the Study

India has 28 state and 8 union territories. which are divided into six regions -Northern, North-eastern, Eastern, Central, Western and Southern Region. Northern region include the states- Haryana, Himachal Pradesh, Punjab, Rajasthan, along with the union territories of Jammu & Kashmir, Chandigarh, Delhi, Ladakh. North-eastern region consists of seven states- Arunachal Pradesh Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura. Eastern region comprises five states and one union territory, these are Bihar, Jharkhand, Odisha, Sikkim, West Bengal, Andaman & Nicobar Islands respectively. Central region consists of four states- Chhattisgarh, Madhya Pradesh, Uttar Pradesh, Uttarakhand. Western region, there are three states- Goa, Gujarat, Maharashtra, and one union territory- Dadra & Nagar Haveli and Daman & Diu, and Southern region consist of five states (Andhra Pradesh, Kerala, Tamil Nadu, and Telangana) and two union territories (Lakshadweep and Puducherry).

Data of the Study

The study relies on secondary data obtained from various government sources such as RBI, India Post and Census (2011).

Points of time of the Study

For purpose of comparison on financial inclusion index among regions of India. The study is based on two points of time that is 2015 and 2023.

Dimension and Variables

Dimension	Variable
Availability Dimension	Bank Branches
	ATM
	Saving Account
	Credit Account
Banking Penetration	Bank Branches per Lakh Population
	ATM per Lakh Population
	Saving Account per Lakh Population
	Credit Account per Lakh Population
Usage Dimension	Credit
	Deposit
	Credit-Deposit Ratio

Method of the Study

Step 1: All measurements have been normalized to remove units.

Dimension Index $= \frac{X_i - X_{min}}{X_{max} - X_{min}}$

Step 2: Computing the financial inclusion index

Financial Inclusion Index$= 1 - \frac{\sqrt{(1-ai)^2 + (1-pi)^2 + (1-ui)^2}}{\sqrt{3}}$

Where the dimension indices for availability, penetration (or accessibility) and usage are represented by ai, pi, and ui respectively. All dimension indices that fall between zero to one have been developed the financial inclusion index, where zero represents total financial exclusion and one represents the ideal level of complete financial inclusion in an economy.

All regions are divided into four groups according to the financial inclusion index value in order to simplify a comparative evaluation. The standard for determining these categories is the financial inclusion index.

Sr. No.	FII score	Level of Financial Inclusion
1.	FII >. 65	High
2.	.65 ≥ FII >.50	Above Average
3.	.50 ≥ FII ≥ .35	Below Average
4.	.35 > FII	Low

Analysis of the Study

Section 1: Dimension Indices of Financial Inclusion

(A): Availability of Financial Services (ai)

Table no 1 shows the region wise dimension index of availability of financial services. Southern and north- eastern region consistently obtained index value of 1 and 0, indicating that greatest number of individuals have availability of financial services while north- eastern regions have limited availability to financial services. However, the northern, eastern, central, and western regions have seen an increase in availability of financial services in 2023 as compared to 2015.

Table no. 1: Dimension Index of Availability of Financial Services

	2015					2023				
Regions	**Bank Branches**	**Atm**	**Saving**	**Credit**	**Average**	**Bank Branches**	**Atm**	**Saving**	**Credit**	**Average**
Northern Region	0.615	0.503	0.348	0.189	0.414	0.593	0.428	0.385	0.331	0.434
North-eastern Region	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Eastern Region	0.527	0.374	0.693	0.221	0.454	0.555	0.375	0.572	0.384	0.471
Central Region	0.678	0.444	0.605	0.272	0.500	0.669	0.467	0.602	0.357	0.524
Western region	0.495	0.511	0.441	0.339	0.446	0.476	0.487	0.469	0.726	0.540
Southern Region	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Source: Computed by author, available data from RBI (2015-2023)

(B) Financial Penetration (pi)

Table no 2 shows the dimension index of financial penetration. This index has been calculated by determining the proportion of bank accounts, ATMs, savings accounts, and credit accounts per one lakh population across all regions of India. Table shows that financial penetration of southern region has been increased to a value of 1, indicating that a significant proportion of the population

has access financial services. While, north-eastern region shows the lowest financial penetration, which indicate that majority of the population are unable to access financial services. On the other hand, there is decreased in financial penetration in northern, central, eastern and western region.

Table no. 2: Dimension Index of Financial Penetration

	2015					2023				
Regions	**Bank Branches**	**Atm**	**Saving**	**Credit**	**Average**	**Bank Branches**	**Atm**	**Saving**	**Credit**	**Average**
Northern Region	0.545	0.448	0.330	0.101	0.356	0.482	0.321	0.360	-0.173	0.248
North-eastern Region	0.037	0.111	0.000	0.060	0.052	0.149	0.098	0.000	-0.048	0.050
Eastern Region	0.000	0.010	0.389	0.000	0.100	0.010	0.000	0.294	-0.051	0.063
Central Region	0.028	0.000	0.259	0.001	0.072	0.000	0.003	0.248	0.000	0.063
Western Region	0.372	0.473	0.450	0.297	0.398	0.334	0.420	0.471	-0.558	0.166
Southern Region	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Source: Calculated by author, available data from RBI and India Post (2015-2023)

Census- 2011, Population Projected

(C) Usage of Financial Services (ui)

Table no 3 shows the dimension index of usage of financial services in Indian regions. Table shows that average usage of financial services has been increased in central and southern region this shows the usage of financial services have been improved, while average usage of financial services has been decreased in northern, western, and eastern region. On the other hand, north-eastern region constantly remains zero shows lowest usage of financial services.

Table no. 3: Dimension Index of Usage of Financial Services

	2015				2023			
Region	**Credit**	**Deposit**	**Credit-Deposit Ratio**	**Average**	**Credit**	**Deposit**	**Credit-Deposit Ratio**	**Average**
Northern Region	0.671	0.647	0.990	0.769	0.698	0.758	0.631	0.696
North-eastern Region	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Eastern Region	0.203	0.378	0.231	0.270	0.227	0.419	-0.057	0.196
Central Region	0.217	0.389	0.281	0.296	0.301	0.459	0.140	0.300
Western Region	1.000	1.000	0.799	0.933	0.980	1.000	0.752	0.911
Southern Region	0.777	0.744	1.000	0.840	1.000	0.895	1.000	0.965

Source: Calculated by author, available data from RBI and India Post (2015-2023)

Section 2: Region Wise Financial Inclusion Index in India

Financial Inclusion Index

Table no 4 illustrating the rank and financial inclusion index across all the regions of India in 2015 and 2023. Financial inclusion index computed on the basis of three indices such as availability of financial services, financial penetration and usage of financial services. This table shows that southern region secure high level of financial inclusion with rank the 1 in both the year among all regions of India and north- eastern region remains the least financially developed in both the years. On the other hand, western region holds the second rank with improvement in financial services from 2015 to 2023. While as, north- eastern northern, central and eastern region remains third, fourth and fifth place respectively. But its indices value dropped in the year 2023 in comparison to year 2015. Overall, this table shows that some regions improved financial services but some of the regions has stagnant financial services.

Table no. 4: Financial Inclusion Index

Financial inclusion Index						
	2015			2023		
Sr. no.	Region	value	rank	Region	value	rank
1	Southern Region	0.908	1	Southern Region	0.980	1
2	Western Region	0.526	2	Western Region	0.448	2
3	Northern Region	0.480	3	Northern Region	0.429	3
4	Central Region	0.268	4	Central Region	0.271	4
5	Eastern Region	0.260	5	Eastern Region	0.225	5
6	North-Eastern Region	0.017	6	North-Eastern Region	0.016	6

Source: Calculated by author, available data from RBI and India Post (2015-2023)

Figure no 1: Region Wise Trends of Financial Inclusion Index:

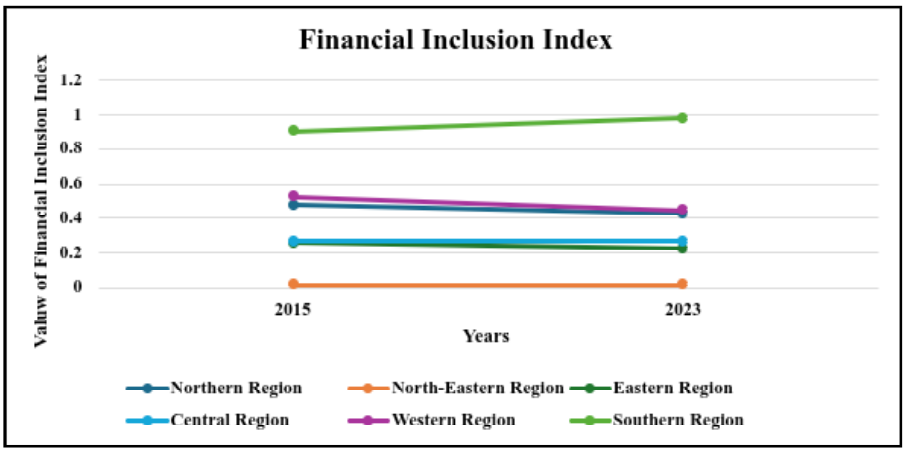


Figure no: 1 based upon Table no: 5

Summary of the Findings

Table no. 6: Categorization of Indian Regions under Financial Inclusion Levels

FII Score	Level of Financial Inclusion	2015	2023
FII >. 65	High	Southern Region	Southern Region
.65 ≥ FII >.50	Above Average	Western Region	
.50 ≥ FII ≥ .35	Below Average	Northern Region	Western Region Northern Region
.35 > FII	Low	Central Region Eastern Region North-Eastern Region	Central Region Eastern Region North-Eastern Region

Conclusion

Table no 6 shows that southern regions have high level of financial inclusion, while as, western region slipped from above average financial inclusion to below average financial inclusion. On the other hand, northern region lies above average level of financial inclusion at both points of time. But three regions of India- central, eastern and north- eastern remain constant at low level of financial inclusion. There is a need to improve the financial inclusion status in these regions for faster capital formation and economic development.

References

1. Chattopadhyay, S. K. (2011). Financial inclusion in India: A study of West Bengal. Munich Personal RePEc Archive.
2. Sethy, S. K., & Goyar, P. (2018). Measuring financial inclusion of Indian states: An empirical study. Indian Journal of Economics and Development, 14(1), 111-118.
3. Dasgupta, R. (2009). Two approaches to financial inclusion. Economic and Political Weekly, 44(26/27), 41–44.
4. Goel, S., & Sharma, R. (2017). Developing a financial inclusion index for India. *Procedia Computer Science, 122*, 59-65
5. 10. Dabla-Norris, E., Deng, Y., Ivanova, A., Karpowicz, I., Unsal, F., VanLeemput, E., & Wong, J. (2024). Financial inclusion: Zeroing in on Latin America (IMF Working Paper No. 24/105). International Monetary Fund.
6. Goswami, S. (2023). An analytical assessment of the economic and financial inclusion stats of Uttar Pradesh. Asian Journal of Multidimensional Research, 12(3), 75-94.
7. Kumari, M. (2022). Financial inclusion and human development in India and interstate analysis. International Journal of Economic Development Research (IJEDR), 3(1), 1-12.
8. Ghosh, S., & Sahu, T. N. (2021). Financial inclusion and economic status of the states of India: An Evidence. Economic Notes, 50(2), e122182.
9. Kandari, P. (2020). Status of financial inclusion in hilly rural areas of Uttarakhand: A comparative study of Pori Chamoli and Rudraprayag district. Journal of Mountain Research, 15, 21-33.
10. RBI
11. India Post
12. Census

Role of Agricultural Microfinance in Indian Rural Development

Prof. Manjula Upadhyay[1], & Anand Kumar Nigam*[2]

ABSTRACT

Agricultural microfinance has emerged as a critical instrument in fostering inclusive growth and sustainable development within India's vast rural landscape. By extending small-scale financial services – including credit, savings, and insurance – to marginalised farmers, particularly smallholders and women, it addresses the pervasive challenges of limited access to formal financial institutions. This research explores the multifaceted role of agricultural microfinance in driving rural development in India. Access to timely and affordable credit empowers farmers to invest in essential inputs such as seeds, fertilisers, and irrigation, leading to enhanced agricultural productivity and improved livelihoods. Furthermore, microfinance facilitates the adoption of modern farming techniques and diversification of agricultural activities, contributing to greater income stability and resilience against climatic and market volatilities. Beyond direct agricultural benefits, microfinance fosters entrepreneurship and the development of allied rural enterprises, creating employment opportunities and strengthening local economies. Moreover, agricultural microfinance plays a significant role in promoting financial inclusion and empowering women in rural communities. By providing women with access to financial resources and control over assets, it enhances their economic and social standing within their households and communities. The formation of Self-Help Groups (SHGs) under the microfinance umbrella fosters social capital, collective action, and improved access to information and resources. However, the effective role of agricultural microfinance in Indian rural development is contingent upon addressing challenges such as high interest rates, inadequate outreach to remote areas, and the need for financial literacy and capacity building among beneficiaries. Innovations in delivery mechanisms, integration with agricultural value chains, and supportive policy frameworks are crucial to unlock the full potential of agricultural microfinance in transforming rural India towards a more prosperous and equitable future.

Keywords: *Agricultural Microfinance, Inclusive Growth, Sustainable Development, Smallholders, Productivity, Rural Development.*

Introduction

India, a predominantly agrarian economy, relies heavily on the rural sector, with nearly 65% of its population residing in rural areas and over 50% engaged in agriculture and allied activities.

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Agriculture not only sustains livelihoods but also contributes around 18% to the country's Gross Value Added (GVA) as per the Ministry of Agriculture & Farmers Welfare (2023). Despite its significance, the sector continues to struggle with chronic issues like fragmented land holdings, lack of technological advancement, climate-related uncertainties, and—most crucially—limited access to institutional credit.

Access to finance is a key enabler for rural development and agricultural sustainability. However, traditional banking systems often fail to adequately serve small and marginal farmers due to factors like lack of collateral, low financial literacy, and high transaction costs. According to the NABARD All India Rural Financial Inclusion Survey (NAFIS 2022), more than 50% of rural households still rely on informal sources of credit, such as moneylenders, which often come with exploitative interest rates.

In this scenario, agricultural microfinance has emerged as a powerful tool to bridge the financial gap. Microfinance institutions (MFIs), self-help groups (SHGs), and cooperative societies have played a critical role in extending small-ticket loans to underserved farmers, enabling them to invest in seeds, fertilisers, irrigation, livestock, and farm equipment. As per the Microfinance Institutions Network (MFIN) report (2023), the microfinance industry in India had a gross loan portfolio of over ₹ 3.5 lakh crore, with rural areas accounting for more than 70% of the outreach.

The impact of agricultural microfinance extends beyond individual farmers. It promotes inclusive rural development by improving agricultural productivity, reducing dependency on informal credit systems, encouraging women's participation through SHGs, and fostering entrepreneurship in allied sectors such as dairy, poultry, and fisheries. In addition, it complements government initiatives like the Pradhan Mantri Fasal Bima Yojana (PMFBY) and PM-KISAN, which aim to enhance farmer welfare and financial inclusion.

This paper explores the evolving role of agricultural microfinance in India's rural development. It will examine the institutional mechanisms supporting microfinance, its socio-economic impact, challenges in implementation, and the way forward for integrating it more effectively into rural financial systems.

Let me know if you'd like this tailored for a speech, report, or presentation format—or if you need the next section (like literature review or case studies).

Review of Literature

Numerous studies have explored the relationship between the financial system and economic growth in India and globally. Financial development is considered a key driver of economic growth. Hicks (1969) argued that the industrial revolution was contingent on financial innovation. Research by King and Levine (1993) indicates that the level of financial development is predictive of future economic growth and productivity improvements. Their findings suggest that increasing financial deepening to the level of the fastest-growing countries could raise a country's growth rate by approximately 1% annually.

Dr Umachagi Ashok (2024): The literature review in this paper highlights the growing significance of agricultural finance in India since independence. It notes the shift from traditional moneylenders to institutional sources like commercial banks and cooperative societies. The review

also discusses the increasing role of the Kisan Credit Card scheme and the potential of microfinance in supporting farmers.

Rizvi and Banerjee (2025): The paper discusses the importance of microfinance in India, especially for the rural population where agriculture is the main source of employment. It highlights the growth of the microfinance sector, with over 10 crore clients and a loan portfolio exceeding 3.52 lakh crore in 2022-23. The Self-Help Group Bank Linkage Program (SHG - BLP) initiated by NABARD is mentioned as a key program in providing financial assistance to the poor.

Gupta deepasha (2014): This paper investigates microfinance's impact on rural households, rural development, and poverty alleviation in India, focusing on the North Eastern villages of Uttar Pradesh. It examines microfinance acceptability and the influence of social, economic, and political factors. The study uses data from 450 respondents in the region.

Mohd Sharif (2018) Microfinance and India's Development: Microfinance is important in India, especially for rural areas where agriculture dominates. It helps the poor by providing financial services. Studies show microfinance and Self-Help Groups (SHGs) are key in delivering these services, though some SHGs face challenges like slow progress and members dropping out.

Need for agricultural Loan:

Agricultural loans are crucial to the growth and sustainability of the agricultural industry and provide a number of significant functions. The following are some main justifications for the necessity of agricultural loans:

Investment in Farming Infrastructure: In order to purchase necessary farming equipment including barns, greenhouses, irrigation systems, and storage facilities, farmers frequently need loans. These expenditures have the potential to lower post-harvest losses and boost output.

Crop Production: To finance the production of crops, agricultural loans are essential. The seeds, fertiliser, insecticides, and other supplies needed for crop planting, growth, and harvesting are bought by farmers using these loans. This funding is particularly crucial for small and marginal farmers.

Acquisition of Machinery and Equipment: Tractors, harvesters, and ploughing equipment are just a few examples of the specialised machinery and equipment that are frequently needed in modern farming. Farmers can obtain these resources through agricultural loans, which may result in more economical and productive farming methods.

Farming Livestock and Poultry: Capital is needed for the purchase of animals, feed, veterinary care, and housing in livestock and poultry production. Farmers can start or grow their livestock operations with the help of loans.

Working Capital: Seasonal and cyclical fluctuations affect farming, and substantial costs are incurred prior to harvest. To ensure that farmers can plant and grow their crops, agricultural loans offer working cash to cover operational costs such as labour, fuel, fertiliser, seeds, and pesticides.

Acquisition of Machinery and Equipment: Tractors, harvesters, and ploughing equipment are just a few examples of the specialised machinery and equipment that are frequently needed in modern farming. Farmers can obtain these resources through agricultural loans, which may result in more economical and productive farming methods.

Data and Methodology

The research design is a combination of exploratory and descriptive. Several sources provided the data for this investigation. In order to evaluate the effectiveness of India's microfinance organisations, The Bharat Microfinance Report (different issues), the NABARD report (various issues), the Status of Micro Finance in India, and other pertinent sources were used to gather the pertinent data on loans given, loans outstanding, customer outreach, assets, etc. The study's conclusions were derived using basic statistical methods like averages, percentages, etc.

Growth and Disbursement of Agriculture Credit

The data illustrates the shifting landscape of rural credit sources in India from 1961-62 to 2020-21. In the early 1960s, moneylenders dominated the rural credit market, providing a staggering 90.9% of loans, while institutional sources such as government, cooperative societies, and commercial banks played a minimal role. Over the decades, however, the reliance on moneylenders significantly declined, dropping to 21.9% by 2020-21. This decline reflects the government's continued efforts to formalize rural credit through expansion of institutional lending and rural banking infrastructure.

During this period, commercial banks emerged as a major source of rural credit, increasing their share dramatically from just 0.9% in 1961-62 to 43.1% in 2020-21. Cooperative societies also played a significant role, especially between the 1970s and 2010s, though their share slightly decreased in the latest period. Government loans fluctuated over time, peaking in 2002- 03 before dropping again. Meanwhile, the "Others" category remained relatively minor but saw an increase in recent years. Overall, the trend indicates a steady institutionalization of rural credit in India, with a clear shift away from exploitative informal sources towards more regulated and formal financial institutions.

Table 1. Source of agricultural credit (in %)

Source	1961-62	1970-71	1981-82	1991-92	2002-2003	2010-11	2020-21
Government	3.3	2.6	3.6	4.0	6.1	3.0	4.6
Cooperative Societies	3.1	15.5	22.7	28.6	21.6	26.0	24.9
Commercial Banks	0.9	0.6	4.0	28.0	33.7	27.0	43.1
Moneylenders	90.9	67.4	68.4	38.8	32.7 1	41.0	21.9
Others	1.8	13.9	1.3	0.6	5.9	3.0	6.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sources: RBI bulletin, May 2011, Economic Survey 2010–11, 2020–21, and Report of the All- India Rural Credit Review Committee 1969.

Direct Institutional Credit for Agriculture and Allied Activities Short-term

This dataset highlights the growth and shifting trends in agricultural credit disbursement and outstanding loans across Co-operatives, Scheduled Commercial Banks (SCBs), and Regional Rural Banks (RRBs) from 2000-01 to 2011-12, along with projected figures for 2024-25. A key observation

is the steep rise in the role of SCBs, both in terms of loans issued and outstanding. From issuing ₹ 10,704 crore in 2000-01, SCBs saw their loan disbursements skyrocket to ₹ 2,17,897 crore in 2011-12, reflecting a remarkable Compound Annual Growth Rate (CAGR) of 33%. RRBs also experienced strong growth (CAGR of 29.10%), though their total share remains smaller than SCBs. Co-operatives, which initially held a larger share in 2000-01, showed moderate growth with a CAGR of 13.57%, gradually getting overshadowed by the rising prominence of SCBs.

In terms of outstanding loans, the trend mirrors disbursements. SCBs showed a tremendous rise from ₹ 15,422 crore in 2000-01 to ₹ 2,69,030 crore in 2011-12, with a CAGR of 30.96%. RRBs also improved significantly, while Co-operatives lagged behind with a CAGR of 12.05%. This shift indicates a growing reliance on more robust and capital-rich commercial banking institutions, potentially due to better reach, efficiency, and government policy support. The projected data for 2024-25 continues this trajectory, suggesting SCBs and RRBs will dominate rural credit, with SCBs maintaining their leadership in both credit disbursal and outstanding loans. The trend overall reflects a transformation in rural finance from localized, cooperative-based credit to a more centralized, bank-led system.

Table 2. Direct institutional credit for agriculture and allied activities short term (Rs. Crore)

Year	Loans Issued				Loans Outstanding			
	Co-operatives	SCBs	RRBs	Total	Co- operatives	SCBs	RRBs	Total
2000-01	18556	10704	3095	32355	18168	15422	3692	37302
2001-02	21670	12661	3810	38141	21540	18882	4812	45234
2002-03	23629	16825	4834	45288	24518	23211	6495	54224
2003-04	29326	24143	6133	59593	30808	31982	7664	70454
2004-05	31887	29978	9883	71748	32481	71748	10980	86259
2005-06	35624	45644	12816	94084	34140	59971	13877	107988
2006-07	40796	65245	17031	123072	37764	76006	18707	132477
2007-08	47390	68243	20377	136010	43696	96152	22748	162596
2008-09	48022	107766	22851	178639	45686	126285	26652	198623
2009-10	61951	1246646	30529	217126	54970	167623	33663	256256
2010-11	NA	146063	38560	NA	NA	193262	40663	NA
2011-12	NA	217897	47011	NA	NA	269030	46580	NA
CAGR	**13.57**	**33.00**	**29.10**	**24.3**	**12.05**	**30.960**	**26.95**	**23.86**
2024-25* (Projected)	NA	226861	48021	NA	NA	270310	47481	NA

Source: Reserve Bank of India Bulletin

Major Finding of this Research

The data shows a clear shift in India's rural credit landscape, moving away from a heavy reliance on moneylenders towards institutional sources like commercial banks. In the early 1960s, moneylenders provided the majority of loans (90.9%), but by 2020-21, their share dropped

significantly to 21.9%. Simultaneously, the share of commercial banks increased substantially from 0.9% to 43.1% in the same period.

Commercial banks have emerged as the leading providers of agricultural credit, demonstrating a remarkable increase in both loan disbursements and outstanding amounts. Their loan disbursements rose from ₹ 10,704 crore in 2000-01 to ₹ 2,17,897 crore in 2011- 12, with a Compound Annual Growth Rate (CAGR) of 33%.

Regional Rural Banks (RRBs) have also shown significant growth in agricultural credit, with a CAGR of 29.10%. While their overall share is less than that of commercial banks, their increasing prominence is evident.

Cooperative societies, which were once a significant source of agricultural credit, have seen their role evolve. While they played a vital role between the 1970s and 2010s, their share has decreased somewhat in recent years, and their growth (CAGR of 13.57% for loans issued) has been outpaced by commercial banks.

Agricultural loans remain crucial for the growth and sustainability of the agricultural industry. These loans facilitate investments in farming infrastructure, crop production, machinery and equipment, livestock and poultry, and provide essential working capital for farmers.

Conclusion and Suggestion

Based on the research, it is evident that the agricultural finance landscape in India has undergone a significant transformation, with a notable shift from traditional moneylenders to formal financial institutions. Commercial banks and regional rural banks have played an increasingly important role in providing agricultural credit, while the influence of moneylenders has declined substantially. This evolution signifies the increasing formalization of the agricultural credit system, which is crucial for promoting inclusive growth and sustainable development in rural India.

To further enhance the effectiveness of agricultural finance, it is crucial to address the challenges that persist. This includes ensuring timely and affordable credit access to small and marginal farmers, improving financial literacy and capacity building among beneficiaries, and promoting innovative delivery mechanisms. Integrating agricultural finance with value chains and strengthening policy frameworks are also essential steps to unlock its full potential in transforming rural India towards a more prosperous and equitable future.

References

1. Mohd, S. (2018). A study on the performance of microfinance institutions in India. *International Academic Journal of Accounting and Financial Management*, *5*(4), 116-128.
2. Umachagi, A. E. " Sources of Agricultural Finance In India-An Overview.
3. Gupta, D. E. E. P. A. S. H. A. (2014). The impact of micro finance on rural households and its role in rural development and poverty alleviation-an analysis of north eastern villages of UP, India. *International Journal of Management*, *5*(4), 145-151.
4. Rizvi, S. A. H. (2025). The Role of Microfinance in the Development of the Indian Economy.
5. Roy, A. (2011). *Microfinance and Rural Development in the North East India*.

6. Pawar, P. K., & Talekar, S. D. A study on agricultural finance and its role in rural development in India.

7. Pankaj, D., Farhad, A. K., & Rzgar, A. R. (2019). Micro finance institutions and their importance in growing economic development: A study of rural Indian economy. *Russian Journal of Agricultural and Socio-Economic Sciences*, *90*(6), 216-225.

8. Mohan, R. (2006). Agricultural credit in India: Status, issues and future agenda. *Economic and Political Weekly*, 1013-1023.

9. Vetrivel, S. C., & Kumarmangalam, S. C. (2010). Role of microfinance institutions in rural development. *International Journal of Information Technology and Knowledge Management*, *2*(2), 435-441.

10. Statistical Tables Relating to Banks in India (Various Issues), Reserve Bank of India, Mumbai. URL:(www.rbi.org.in)

Rural Entrepreneurship for Rural Prosperity: A Upian Perspective

Prof. (Dr.) Vikramdev Acharya[1] & Dr. Vidushi Sharma[2]

Introduction

India's economic and social structure remains deeply anchored in its rural foundation, with over **65% of the population residing in rural areas** (World Bank, 2023). The villages of India, often described as the 'soul of the nation' by Mahatma Gandhi, have long played a pivotal role in shaping its civilizational ethos, yet continue to experience disproportionate levels of poverty, infrastructure deficits, and economic marginalization. While rapid urbanization has spurred significant growth in metropolitan regions, the rural economy—largely agrarian and informal—has lagged in productivity and inclusion. This urban-rural divide has profound implications for inclusive national development and socio-economic equity.

Rural Underdevelopment in India and Uttar Pradesh

The issue of rural underdevelopment in India is both structural and multifaceted. Despite targeted policy interventions such as the *Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)* and the *Rurban Mission*, rural regions remain beset with chronic challenges—underemployment, lack of market access, poor education and healthcare facilities, and weak infrastructure (NITI Aayog, 2021). According to the Periodic Labour Force Survey (PLFS) 2022, rural India experiences higher rates of informal employment (75.8%) than urban areas, indicative of the lack of stable income-generating opportunities (MoSPI, 2022).

In the case of **Uttar Pradesh (UP)**—India's most populous state with 77% of its population living in rural areas—the disparities are more pronounced (Census, 2011). Despite substantial agricultural output, UP's rural per capita income remains below the national average, and youth unemployment in rural districts is persistently high. Moreover, socio-economic inequalities are exacerbated by low female labor force participation and caste-based exclusions, which restrict broader participation in economic activities (Desai & Vanneman, 2022).

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Rural Entrepreneurship: A Vehicle for Inclusive Growth

In this context, rural entrepreneurship emerges as a transformative force capable of addressing these structural limitations. Defined as the process of creating business ventures in rural areas by leveraging local resources, skills, and markets, rural entrepreneurship enables job creation, fosters local innovation, and enhances community resilience (Kumar & Bansal, 2021). More importantly, it diversifies the rural economy beyond subsistence agriculture, integrating sectors such as agri-business, handicrafts, rural tourism, social enterprises, and renewable energy.

Recent studies indicate that micro and small enterprises in rural areas account for nearly 45% of new job creation in non-farm sectors (Ministry of MSME, 2023). Additionally, grassroots innovations in agri-tech, digital inclusion, and cooperative models have shown potential for scalability and replication across different regions. Entrepreneurship also plays a catalytic role in empowering marginalized communities, particularly rural women, by offering them financial independence and a platform for social change (Kabeer, 2020).

Despite these opportunities, rural entrepreneurs face formidable challenges: inadequate access to finance, lack of infrastructure, limited exposure to markets, and skill deficits. Structural bottlenecks in connectivity—physical, digital, and institutional—have constrained the expansion of rural businesses. This underscores the urgent need for a strategic framework that is contextually grounded in the cultural, economic, and spiritual dimensions of rural India.

Conceptual Aim of the Study

This conceptual paper seeks to explore and articulate a Village-Centric Development Strategic (VDS) Model for rural entrepreneurship in Uttar Pradesh, rooted in indigenous knowledge systems and contemporary development paradigms. Drawing inspiration from Dr. A.P.J. Abdul Kalam's *PURA (Providing Urban Amenities to Rural Areas)* framework and Gandhian principles of self-reliance (*Gram Swaraj*), the model proposes a multidimensional approach that integrates physical, electronic, knowledge, and economic connectivity (Kalam, 2004).

The key objective of the paper is to conceptually frame a development model that aligns with the realities of rural Uttar Pradesh, offers pathways for scalable entrepreneurship, and enhances rural prosperity through integrated and sustainable interventions. It contributes to the academic and policy discourse by offering a unique theoretical construct that bridges indigenous wisdom with modern entrepreneurial practice.

THEORETICAL BACKGROUND

Operation Definition Rural Development

"Rural development is a participatory, multi-sectoral process that enhances the quality of life in non-urban areas by improving income, infrastructure, health, education, and local governance. It emphasizes self-sufficiency, sustainable resource use, and decentralized planning to reduce regional disparities and promote inclusive, community-driven growth rooted in indigenous values." Rural development, as a multidisciplinary concept, encompasses the economic, social, infrastructural,

and human resource transformations aimed at improving the quality of life for people living in non-urban areas. According to the United Nations (UNDP, 2022), rural development involves enhancing rural livelihoods through agricultural productivity, infrastructure creation, education, health services, and sustainable natural resource management.

In India, rural development is contextually framed as the process of improving rural incomes, promoting self-sufficiency, and reducing migration pressures from rural to urban regions (Ministry of Rural Development, 2022). Despite decades of development efforts, challenges persist in rural India—including uneven access to infrastructure, regional income disparities, and limited formal employment. These issues are particularly acute in states like Uttar Pradesh, where rural underdevelopment is amplified by high population density, land fragmentation, and social stratification (Desai & Dubey, 2020).

Entrepreneurship in the Rural Context

Rural entrepreneurship refers to the establishment and operation of business ventures in rural areas, using local resources, skills, and opportunities to generate income, employment, and community development. As an inclusive growth mechanism, it offers rural populations avenues beyond subsistence farming and wage labor (Kumar & Bansal, 2021). The rural entrepreneurial ecosystem includes sectors such as agribusiness, dairy, food processing, handicrafts, renewable energy, and rural tourism.

Government policy frameworks such as the Start-Up Village Entrepreneurship Programme (SVEP) under the Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM) aim to promote micro-enterprises by providing training, credit access, and institutional support to rural entrepreneurs (MoRD, 2023). Reports suggest that **more than 2.5 lakh enterprises** have been supported under SVEP since its inception, with a focus on women and SC/ST entrepreneurs (MoRD, 2023).

Dr. A.P.J. Abdul Kalam's PURA Model

A pivotal contribution to rural development theory in India comes from Dr. A.P.J. Abdul Kalam's PURA (Providing Urban Amenities in Rural Areas) model (refer in Figure 1). Introduced in 2004, PURA proposes that rural transformation can be achieved through four forms of connectivity—physical, electronic, knowledge, and economic—that converge to create self-contained and economically viable rural clusters (Kalam, 2004).

The PURA model is unique in its emphasis on integrating infrastructure development with entrepreneurship and community participation. It envisions rural areas not as passive recipients of aid but as active nodes of innovation and economic activity. The model has been piloted in various forms across states through Public-Private Partnerships (PPPs), demonstrating improved access to education, healthcare, and digital services (Chand et al., 2016).

Furthermore, PURA aligns with global rural development agendas such as the UN Sustainable Development Goals (SDGs), especially Goal 8 (Decent Work and Economic Growth) and Goal 9 (Industry, Innovation and Infrastructure), by promoting inclusive economic participation through rural entrepreneurship.

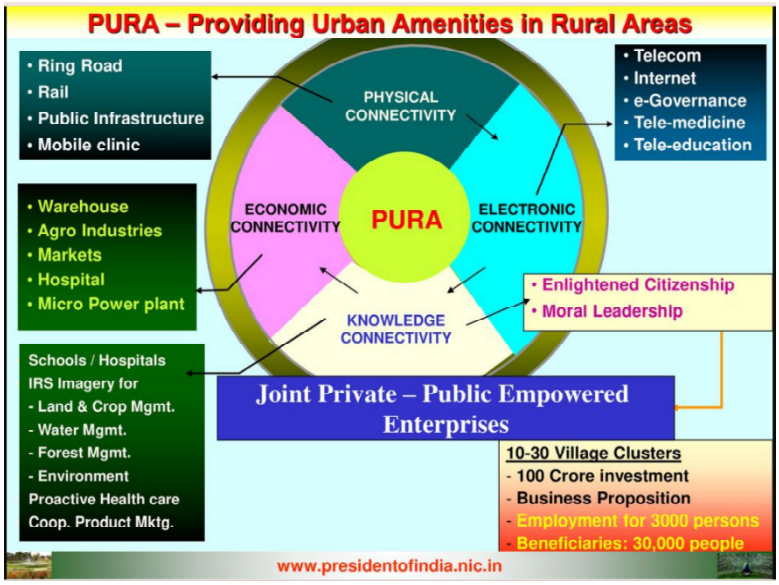


Figure 1: PURA Model (Providing Urban Amenities in Rural Areas)

The VDS Model: A Village-Centric Conceptual Framework

Building upon the PURA model and indigenous rural philosophies, this paper proposes the **Village-centric Development Strategic (VDS) Model,** a conceptual framework tailored for rural Uttar Pradesh. The VDS model is predicated on the idea that sustainable development must be grounded in the **local cultural, spiritual, ecological, and economic realities of rural India**.

The model draws from the ideological contributions of leaders like Mahatma Gandhi, Dr. B.R. Ambedkar, Dr. Ram Manohar Lohia, and Chaudhary Charan Singh, as well as contemporary thinkers like Baba Ramdev and Rajiv Dixit. It emphasizes spiritual ecology, social justice, cooperative economics, and localized entrepreneurship.

Key components of the VDS Model include:

- *Physical Infrastructure: Roads, irrigation, clean water, energy, and transportation to reduce transaction costs and improve market access.*
- *Digital Inclusion: Broadband connectivity, digital literacy, and e-governance to enable tele-education, telemedicine, and e-commerce.*
- *Skill Development: Vocational and entrepreneurial training customized to local industries like agro-processing, textiles, eco-tourism, and rural crafts.*
- *Microfinance and Credit Access: Promotion of SHGs and cooperative banking to empower marginalized groups, especially women and SC/ST communities.*
- *Cultural and Spiritual Integration: Development models grounded in ethical, spiritual, and ecological values, promoting human dignity and community well-being.*

Rural entrepreneurship lies in its **multi-dimensional impact**—from poverty alleviation and job creation to community empowerment and resilience-building. While policy frameworks provide institutional support, what is lacking is a culturally nuanced, ground-level model that aligns with **local aspirations and traditional knowledge systems.**

The VDS model attempts to bridge this gap by offering **a conceptually robust, integrative, and scalable framework.** It advocates for a shift from a charity-based development model to a **capability-driven** model of empowerment, inspired by Amartya Sen's capability approach and Gandhian ideals of self-sufficiency.

This paper, therefore, contributes a novel conceptual lens for policymakers, development practitioners, and scholars interested in inclusive, sustainable, and decentralized rural development strategies.

CONCEPTUAL FRAMEWORK: THE VILLAGE-CENTRIC DEVELOPMENT STRATEGIC (VDS) MODEL

The Village-centric Development Strategic (VDS) Model is a conceptual framework designed to promote rural entrepreneurship and inclusive development in Uttar Pradesh, and by extension, other rural regions of India. It synthesizes indigenous philosophical insights, Gandhian economic thought, spiritual ecology, and modern developmental frameworks like Dr. A.P.J. Abdul Kalam's PURA (Providing Urban Amenities to Rural Areas). The model emphasizes a bottom-up, integrated, and ethical approach to rural prosperity that is not only economically viable but also socially inclusive and spiritually grounded.

Unlike conventional rural development models that rely heavily on government interventions or urban spillovers, the VDS model prioritizes localized planning, resource-based entrepreneurship, and community empowerment. It recognizes that economic progress in rural India must resonate with its civilizational ethos and draw upon its rich cultural and philosophical heritage.

Philosophical and Ideological Foundations

i. **Gandhian Economics and Gram Swaraj:** The VDS model is rooted in Gandhian principles of "Gram Swaraj"—a vision where each village is self-sufficient in its basic needs, governed democratically by its residents, and anchored in ethical and ecological values (Gandhi, 1936). Gandhi envisioned rural life not as backward but as the foundation of India's spiritual and moral compass. This contrasts sharply with development paradigms that seek to urbanize the rural without acknowledging its unique strengths.

ii. **Spiritual Ecology and Value-based Development:** The model also draws from India's spiritual and ecological traditions, especially the teachings of Maharshi Aurobindo, Dayanand Saraswati, Baba Jai Guru Dev, and more recently, voices like Yog Rishi Swami Ramdev and Rajiv Dixit. These perspectives emphasize dharma (moral order), ahimsa (non-violence), and lokasangraha (welfare of all) as central to development. The VDS model proposes that entrepreneurship should not merely serve economic gain but be ethically aligned with community well-being, environmental stewardship, and spiritual harmony.

Components of the VDS Model

The VDS model is structured around five integrated pillars, each designed to activate rural potential holistically:

The **Vibrant Village Development Scheme (VDS)** model, designed for comprehensive rural upliftment, focuses on three interconnected pillars: Physical Connectivity, Electronic and Digital Inclusion, and Knowledge and Skill Development.

Firstly, **Physical Connectivity and Infrastructure** form the foundation. This involves establishing all-weather roads, robust transport systems, and critical storage facilities for agricultural produce. The model also emphasizes affordable housing, potable water, sanitation, and renewable energy to ensure high living standards. Enhanced connectivity not only integrates rural economies but also significantly reduces transaction costs and improves market access for producers. World Bank data (2022) on PMGSY highlights a 32% increase in agricultural market participation due to rural road development, underscoring infrastructure's vital role.

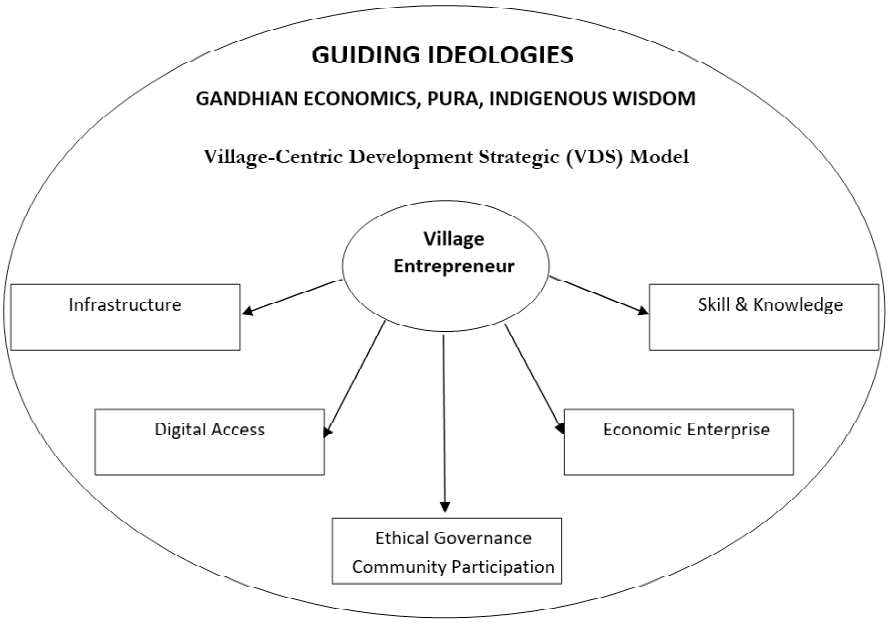


Figure 2: Village-Centric Development Strategic (VDS) Model

Secondly, **Electronic and Digital Inclusion** is deemed indispensable in the digital age. The VDS promotes comprehensive broadband infrastructure, mobile banking, e-commerce, and digital service delivery systems. It champions technology's role in democratizing access to education (digital classrooms), healthcare (telemedicine), governance (e-governance portals), and market information (online marketing systems), empowering rural citizens and entrepreneurs. Initiatives like Digital India and BharatNet demonstrate how digital access can narrow information gaps and expand economic opportunities (MeitY, 2022), fostering tech-enabled supply chains and remote services for both farm and non-farm sectors.

Finally, **Knowledge and Skill Development** are crucial for fostering entrepreneurship. The VDS prioritizes vocational education and localized knowledge dissemination. It supports training centers in agri-tech, rural tourism, renewable energy, and traditional handicrafts, fostering collaborations with universities, ITIs, and NGOs to create dynamic knowledge ecosystems. Integrating indigenous knowledge in sustainable farming and community health adds further value. With nearly 60% of rural youth lacking market-aligned skills (Ministry of Skill Development and Entrepreneurship, 2023), this component is vital for improving employability and entrepreneurial capacity.

The **Vibrant Village Development Scheme (VDS)** model champions **Economic Activation through Local Enterprises** and **Ethical Governance with Community Participation**.

For economic activation, VDS promotes establishing local agri-enterprises (organic farming, food processing), revitalizing rural handicrafts, and developing eco/wellness tourism. It specifically supports women-led enterprises and SHGs, recognizing their vital role in rural economies where micro-enterprises dominate (RBI, 2023).

Ethical governance focuses on transparent, equitable, and accountable frameworks led by Gram Sabhas and Panchayats. This includes community co-creation of development priorities and nurturing local changemakers. Evidence from Kerala and Himachal Pradesh shows community-led governance improves infrastructure use and service targeting (NITI Aayog, 2022).

Integration of VDS Framework with the PURA Framework

The VDS model builds upon the PURA framework, but expands it by embedding spirituality and local value systems. PURA identifies four key connectivity: physical, electronic, knowledge, and economic. The VDS model retains these but emphasizes their rootedness in local realities and ethical entrepreneurship.

PURA Element	VDS Expansion
Physical Connectivity	Infrastructure based on local materials, eco-construction
Electronic Connectivity	Digital services tailored to language and literacy needs
Knowledge Connectivity	Indigenous knowledge + modern skills
Economic Connectivity	Value-based enterprises, cooperatives, women-led MSMEs
Ethical Governance & Community Participation *(Additional in VDS Model)*	Transparent, decentralized decision-making; Gram Sabha engagement; spiritually guided leadership

The VDS model contributes a conceptual scaffold for future rural development policies. It invites state governments, NGOs, and development institutions to adopt a village-centric lens in program design. It also provides a framework for academic inquiry—to study the role of spirituality, ethics, and localization in rural entrepreneurship.

IMPLICATIONS OF THE STUDY

The Village-Centric Development Strategic (VDS) Model proposed in this study presents a comprehensive and culturally grounded framework for driving rural transformation in India. Its utility lies not only in offering a theoretical construct but also in its potential for real-world application across three interrelated dimensions: policy and planning, societal development, and economic transformation. This section explores these implications in depth, highlighting the operational

pathways through which the model may be implemented and the multidimensional benefits it can yield.

Practical Implications: Policy and Planning

i. **Integration into Rural Development Policies:** The VDS model aligns well with existing national policies such as the *National Rural Livelihoods Mission (NRLM)*, *Digital India*, and the *Rurban Mission*—which aim to create integrated, inclusive, and sustainable rural ecosystems. It can be implemented as a localized development framework under these missions by state and district administrations. For instance, the *Shyama Prasad Mukherji Rurban Mission (SPMRM)* aims to create "rurban clusters" by bridging rural and urban divides through economic, social, and infrastructure development. The VDS model's emphasis on community participation and localized entrepreneurship can enhance this by promoting self-managed village clusters, where entrepreneurship is not state-driven but community-nurtured (MoRD, 2022).

ii. **Implementation via Gram Panchayats and SHGs:** The decentralized nature of the model allows for direct implementation through Gram Panchayats and Self-Help Groups (SHGs). With over 8.3 million SHGs currently registered under NRLM, the infrastructure for grassroots-level implementation already exists (MoRD, 2023). Panchayats can be trained and incentivized to use the VDS framework in planning local development goals (Village Development Plans - VDPs), focusing on:

   - Local resource mapping
   - Skill-gap analysis
   - Enterprise identification
   - Ethical and transparent governance mechanisms

iii. **Role of State Governments and Development Agencies:** States like Kerala and Himachal Pradesh have shown successful examples of participatory rural planning, which can be expanded upon using VDS as a conceptual blueprint. Development agencies and NGOs can facilitate capacity building, create social enterprises, and establish public-private-community partnerships (PPCPs) to sustain the model (NITI Aayog, 2022).

Societal Implications: Women Empowerment, Self-Sufficiency, and Social Equity

i. **Women as Pillars of Rural Enterprise:** The VDS model places women at the center of rural transformation. By promoting SHG-based micro-enterprises, agro-processing units, and craft collectives, it enables women to move from unpaid labor to income-generating roles. According to the *World Bank (2023)*, women-led enterprises are 63% more likely to reinvest profits into their communities, thereby amplifying the social multiplier effect. Additionally, rural entrepreneurship offers an avenue to challenge patriarchal norms by allowing women to lead businesses in traditionally male-dominated domains such as technology, logistics, and finance. Access to microcredit and digital platforms like *Mahila e-Haat* can further democratize entrepreneurial entry points for women.

ii. **Promoting Self-Sufficiency and Social Cohesion:** Gandhian principles of *Gram Swaraj*

emphasize self-rule and self-sufficiency, which are directly embedded in the VDS framework. When rural communities develop localized enterprises and rely on local governance, dependency on urban centers reduces. This creates a robust ecosystem of mutual aid, localized decision-making, and circular economies. Social cohesion is also enhanced through community participation in governance and enterprise management. The ethical governance pillar in VDS fosters inclusive decision-making through mechanisms like Gram Sabhas and local cooperatives, thereby enabling greater representation of marginalized castes and tribal populations.

iii. **Culturally Rooted and Ethically Anchored Development:** By grounding development in indigenous values and spiritual ecology, the VDS model restores dignity to rural life. Spiritual leaders and cultural traditions can be engaged as development allies, particularly in sensitization campaigns around gender, education, and environment. This value-based approach addresses not just economic poverty but moral and social impoverishment, a dimension often overlooked in policy frameworks (Kumar & Bansal, 2021).

Economic Implications: Local Enterprise, Job Creation, and Sustainable Development

i. **Fostering Local Enterprises and MSMEs:** The heart of the VDS model lies in enabling village-based enterprises that utilize local resources and meet local needs. These may include:

- Agri-business (e.g., seed banks, food processing)
- Eco-tourism and heritage-based businesses
- Renewable energy micro-grids and services
- Handicrafts and rural creative industries

India's MSME sector currently contributes nearly 30% to GDP and employs over 111 million people. However, less than 20% of rural MSMEs are formally registered, making them invisible to financial and policy support (RBI, 2023). The VDS model encourages formalization through training, registration assistance, and credit linkages, expanding access to government incentives.

ii. **Job Creation and Youth Engagement:** With rural youth unemployment at 17.4% in 2022 (PLFS, 2022), there is an urgent need to create dignified, local employment. The VDS model integrates skill development hubs with entrepreneurship mentorship, encouraging youth to innovate in farming, green energy, logistics, and ICT services. Start-up incubation centers tailored for rural areas, like those under AGNIi (Accelerated Growth for New India's Innovations), can be scaled using the VDS framework to nurture idea-stage enterprises in villages.

iii. **Promoting Green and Sustainable Development:** VDS is inherently aligned with sustainability goals. It promotes:

- Natural resource management (through organic farming and agroforestry)
- Low-emission enterprises (solar, biogas, decentralized grids)
- Resilient supply chains (local consumption, minimal transport)

This supports India's commitments under the Paris Climate Agreement and the UN Sustainable Development Goals (SDGs), particularly:

- SDG 8: Decent Work and Economic Growth
- SDG 11: Sustainable Cities and Communities
- SDG 12: Responsible Consumption and Production

The Village-Centric Development Strategic (VDS) Model is not merely a theoretical proposition but a practical blueprint for rural renewal. Its implications span the planning, societal, and economic spheres, offering a holistic approach to inclusive and sustainable rural development. Grounded in India's cultural and spiritual roots, yet responsive to modern aspirations, the VDS model holds immense promise in bridging the rural-urban divide and realizing the vision of "Viksit Bharat" by 2047.

CONCLUSION

This paper proposed the **Village-Centric Development Strategic (VDS) Model** as a comprehensive and culturally rooted framework for achieving sustainable rural development through entrepreneurship. Anchored in Gandhian economic thought, the PURA framework of Dr. A.P.J. Abdul Kalam, and indigenous spiritual-ecological traditions, the VDS model conceptualizes rural development as a multi-dimensional, participatory, and ethical process. Central to this model is the **Village Entrepreneur**, who functions as the catalyst for transforming local resources and knowledge into viable enterprises that foster prosperity, resilience, and social cohesion.

The analysis reaffirms that rural India—home to nearly **65% of the country's population** (World Bank, 2023)—faces entrenched challenges of underemployment, infrastructure gaps, limited market access, and social exclusion. Despite these constraints, the rural economy possesses untapped potential in agriculture, handicrafts, renewable energy, rural tourism, and social enterprises. The VDS model offers a structured approach to **leveraging local potential** by connecting five key pillars: infrastructure, digital access, skill and knowledge development, economic enterprise, and ethical governance with community participation.

The conceptual framework aligns well with India's national goals for **inclusive growth**, **localization of SDGs**, and **rural-urban integration** under missions such as *Digital India*, *Start-Up India*, and the *Rurban Mission* (MoRD, 2023). Importantly, the model's value-based orientation ensures that development is not merely an economic phenomenon but also a process of **dignity restoration, cultural continuity, and ecological sustainability**. This represents a significant departure from top-down, one-size-fits-all models of rural transformation and instead promotes **bottom-up, community-owned development**.

From an implementation perspective, the VDS model can serve as a **planning toolkit for Gram Panchayats**, **SHGs**, and **District Rural Development Agencies (DRDAs)**. Its operationalization through participatory mechanisms—such as Village Development Plans (VDPs), youth-led innovation hubs, and SHG-facilitated enterprises—can institutionalize entrepreneurial thinking at the grassroots. Moreover, the model can be instrumental in addressing the issue of **rural youth unemployment**, which remains high at **17.4%** (PLFS, 2022), by creating locally viable enterprises and enhancing vocational capacities.

Looking ahead, future research must explore **pilot implementation of the VDS model in specific clusters**, such as backward districts under the *Aspirational Districts Programme*. Comparative studies can assess its effectiveness relative to conventional rural development interventions. Researchers may also develop **metrics for ethical governance, spiritual well-being, and community participation**—dimensions often ignored in mainstream impact assessments. Furthermore, interdisciplinary studies incorporating economics, sociology, rural management, and development ethics will be critical in refining and scaling the model.

The VDS model offers not only a theoretical contribution to the rural development discourse but also a **practical vision for a self-reliant and prosperous Bharat**. By placing the village entrepreneur at the center of the rural ecosystem and aligning development with civilizational values, the model holds the promise to transform India's villages into resilient, thriving, and equitable hubs of growth.

References

1. Census of India. (2011). *Primary Census Abstracts.* Government of India. https://censusindia.gov.in/
2. Chand, R., Saxena, R., & Rana, S. (2016). *Emerging Trends in Rural Development: Issues and Strategies*. Indian Journal of Agricultural Economics, 71(3), 301-312.
3. Dana, L. P. (2001). *The Interface of Entrepreneurship and Rural Development: Integrating Knowledge from Experience*. Journal of Developmental Entrepreneurship, 6(1), 1-23.
4. Desai, S., & Dubey, A. (2020). *Caste and Economic Disparity in Rural India*. Economic and Political Weekly, 55(13), 34-42.
5. Desai, S., & Vanneman, R. (2022). *Inequality and Development in Rural India*. Journal of Development Studies, 58(4), 515-531.
6. Gandhi, M. K. (1936). *Hind Swaraj or Indian Home Rule*. Navajivan Publishing House.
7. Kabeer, N. (2020). *Gender, Labour, and Livelihoods: Intersecting Inequalities in South Asia*. Development and Change, 51(2), 297–319.
8. Kalam, A. P. J. (2004). *Envisioning an Empowered Nation: Technology for Societal Transformation*. Tata McGraw-Hill.
9. Kumar, R., & Bansal, R. (2021). *Rural Entrepreneurship in India: Opportunities and Challenges*. Journal of Rural Studies, 84, 180–192.
10. MeitY (Ministry of Electronics and Information Technology). (2022). *BharatNet Project Overview*. https://www.meity.gov.in
11. Ministry of MSME. (2023). *Annual Report 2022-23*. Government of India.
12. Ministry of Rural Development (MoRD). (2022). *Annual Report 2021-22*. Government of India.
13. Ministry of Rural Development (MoRD). (2023). *Annual Report: DAY-NRLM and Rurban Mission*. Government of India.
14. Ministry of Rural Development (MoRD). (2023). *Start-Up Village Entrepreneurship Programme (SVEP) Guidelines*. https://aajeevika.gov.in/en/svep
15. Ministry of Rural Development. (2023). *Annual Report 2022–23*. Government of India.
16. Ministry of Skill Development and Entrepreneurship. (2023). *Skill India Annual Review*.

17. MoSPI (Ministry of Statistics and Programme Implementation). (2022). *Periodic Labour Force Survey Annual Report 2021–22*. Government of India.
18. NITI Aayog. (2021). *Strategy for New India @75*. Government of India.
19. NITI Aayog. (2022). *Best Practices in Decentralized Planning and Panchayat Governance*. Government of India.
20. Periodic Labour Force Survey (PLFS). (2022). *Annual Report 2021–22*. Ministry of Statistics and Programme Implementation.
21. Reserve Bank of India (RBI). (2023). *Comprehensive Report on MSME Sector*. https://rbi.org.in
22. Reserve Bank of India. (2023). *Report on MSME Sector Performance*.
23. United Nations Development Programme (UNDP). (2022). *Rural Development and Sustainable Livelihoods*. https://www.undp.org/india
24. World Bank. (2022). *India PMGSY Rural Roads Project Impact Assessment*. https://www.worldbank.org
25. World Bank. (2023). *India Rural Population (% of total population)*. https://data.worldbank.org/indicator/SP.RUR.TOTL.ZS

Recent Analysis of Fiscal Consolidation in India

Prof. Vishal Dubey[1]

ABSTRACT

The government has gradually adjusted fiscal deficit targets downward over successive budgets. This tightening discipline is intended to reduce borrowing costs and signal fiscal prudence to investors and rating agencies. The fiscal strategy now emphasizes an outcome-oriented approach where every expenditure is scrutinized for its long-term economic impact, ensuring that growth-related spending isn't undermined by imprudent fiscal management.

Secondly, emphasis is also being laid on enhancing revenue through reducing tax evasion and broadening tax-base while ensuring compliance through digitalization. Improving GST compliance through easier filing procedures are helping in plugging revenue leakages. Similar reforms in the direct taxes is encouraging unaccounted economy to enter the formal sector. Thirdly the government is rationalizing its expenditures; by fine-tuning inefficient subsidies, the government is reallocating resources toward higher-impact areas. The wage bill in the public sector is reviewed and scrutinized and the freed resources are to be used for capital expenditure and infrastructure. Further, scrutiny over non-development and non-capital expenditure ensures that every rupee contributes to the economic growth. Fourthly, structural reforms and disinvestment initiatives raise non-tax revenue and improve operational efficiencies through market-driven reforms. The FRBM Act has ensured greater transparency and accountability in fiscal management. Recent PPP initiatives has shifted burden to the private sector while still reaping the benefits of improved public services.

This paper will analyse receipts and expenditures of the Central Government, States Government as well as of the General Government in absolute values as well as percentage of GDP for last ten years and explore the success achieved in fiscal consolidation in recent years. Further, the paper will analyse the policies adopted in the Union budgets and the challenges faced in adopting fiscal consolidation.

Introduction

Fiscal consolidation involves reducing the gap between government expenditure and non-borrowed receipts. India on path of fiscal consolidation involves tightening expenditure and enhancing revenue collection through tax reforms, improved compliance, and a phased rationalization of subsidies. This on one hand reduced fiscal deficit while ensuring that public investment in productive sectors remains robust showing that the measures adopted under Fiscal Responsibility and Budget Management Act are bearing fruit.

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Fiscal Strategy in India

India's fiscal strategy is centred around achieving sustainable economic growth while maintaining fiscal discipline. The objectives of fiscal strategy are

1. **Economic Stability**: Ensuring macroeconomic stability by controlling inflation and maintaining a balanced budget.
2. **Growth Promotion**: Stimulating economic growth through targeted public expenditure and investments.
3. **Debt Management**: Reducing the debt-to-GDP ratio to ensure fiscal sustainability.

Measures Being Adopted

1. **Public Expenditure**: Focus on infrastructure, health, and education to drive long-term growth.
2. **Taxation Policies**: Simplifying tax structures and improving compliance to enhance revenue collection.
3. **Fiscal Responsibility**: Adhering to frameworks like the Fiscal Responsibility and Budget Management (FRBM) Act.

Fiscal Consolidation and Recent Developments

In the aftermath of unprecedented fiscal pressures brought on by the COVID-19 pandemic, India's public finances experienced significant dislocations—a fiscal deficit that had spiked to 9.2% of GDP in FY 2020-21 among them. Recognizing the need for a return to fiscal discipline and long-term macroeconomic stability, recent policy measures have been geared toward sustainable fiscal consolidation. This process seeks to rebalance government finances by reducing deficits and moderating the debt-to-GDP ratio, thereby undergirding economic resilience and investor confidence. Fiscal consolidation in India is structured around several core objectives:

- **Debt Reduction and Fiscal Deficit Control:** The government has charted out a roadmap to lower the debt-to-GDP ratio, setting a target of 50% (±1%) by 2030-31—a clear signal of its intent to restore fiscal prudence.
- **Revenue Mobilization:** Strengthening the domestic resource base by improving the efficiency of tax collection and broadening the tax base remains a priority. Enhanced direct tax buoyancy and improved compliance mechanisms have been pivotal in enabling increased revenue generation without stifling growth.
- **Efficient Expenditure Management:** Emphasis on prudent and productive spending—particularly on capital expenditure—ensures that the fiscal tightening does not undercut growth potential. Balancing non-discretionary expenditures while simultaneously investing in infrastructure, health, and education forms the backbone of the consolidation strategy.

Data Analysis (Fiscal Trends 2014-15-2023-24)

The combined **tax-GDP ratio** of GoI and the states had languished in the range of 16% to 18% over a period of more than three decades from the late 1980s up to the recent years. It fell to a trough of 16.1% during 2019-20 and 2020-21, affected by the adverse impact of two major tax reforms – Goods and Services Tax (GST) and CIT, and the COVID-19 pandemic. After that, the combined tax-GDP ratio recovered to 18.5% in FY24. GoI's gross tax revenue (GTR) to GDP ratio has increased from a trough of 10.2% in 2020-21 to 11.7% in 2023-24, driven largely by a relatively high direct tax buoyancy.

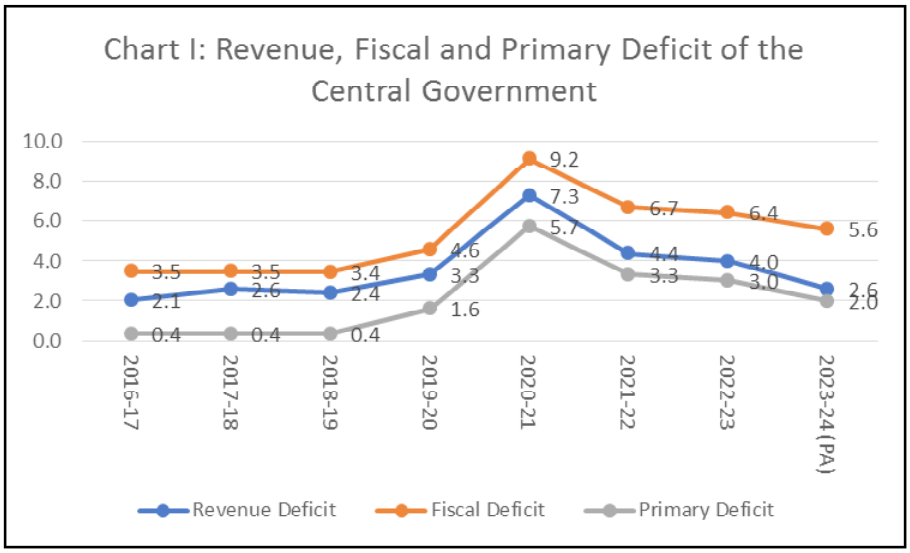
The contribution of **non-tax revenues** (NTR) to overall revenue receipts for the combined account as well as for the GoI's revenue receipts has been rather limited. While the combined NTR to GDP ratio has ranged between 1.9% to 2.8% during 2014-15 to 2023-24, GoI's NTR relative to GDP has ranged from 1.05% to 1.82%. RBI's dividends, an important component of GoI's NTR, have shown periodic jumps during 2019-20, 2021-22, 2023-24 and 2024-25. The National Monetization Pipeline (NMP), introduced in the 2021-22 Union Budget, was an important NTR augmenting initiative. This included assets with monetization potential of INR6 lakh crore from 2021-22 to 2024-25. The government has realized nearly INR3.9 lakh crore against a target of INR4.3 lakh crore in the first three years.

On the **expenditure side**, the combined government expenditure relative to GDP has increased from 25.5% in 2014-15 to 27.5% in 2023-24. Ignoring the COVID year, GoI's total expenditure to GDP ratio has increased from 10.5% in 2014-15 to 12.9% in 2023-24. There has been a tangible

increase in the share of capital expenditure in GoI's total expenditure, from 11.8% in 2014-15 to 21.4% in 2023-24. Correspondingly, share of revenue expenditure has fallen. Within revenue expenditure, there has been an emphasis on reducing the share of subsidies in GoI's revenue expenditure by better targeting and delivery to the intended beneficiaries through DBT.

Recent Trends in Fiscal/ Revenue Deficits

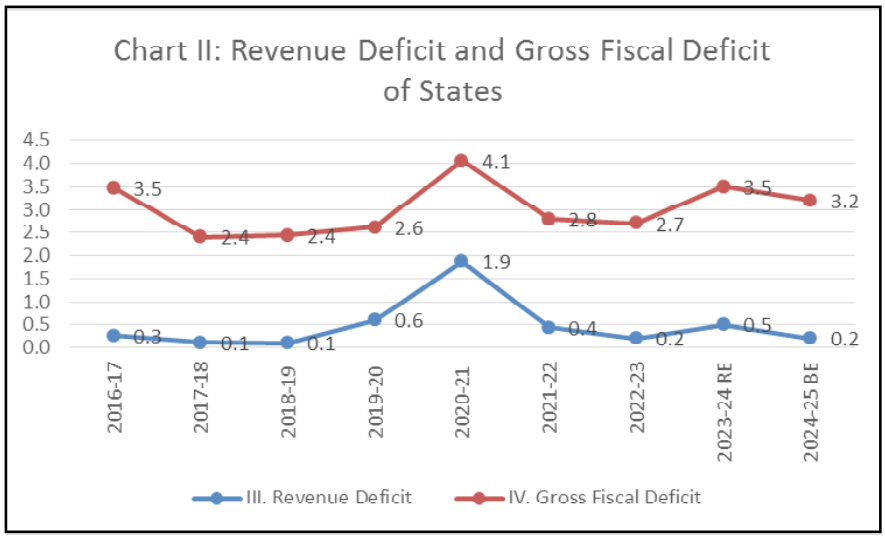
With respect to **GoI's fiscal imbalance**, there was a major slippage in 2020-21 after which there has been a steady stepwise improvement. GoI's fiscal deficit to GDP ratio fell from a peak of 9.2% in 2020-21 to 5.6% in 2023-24. The quality of fiscal deficit has also improved as reflected by a fall in the ratio of revenue deficit to fiscal deficit from 76% in 2017-18 to 46.3% in 2023-24. GoI's debt-GDP ratio has also fallen from its peak level in 2020-21. Currently, GoI's finances appear to be on a strong footing with its tax and non-tax revenues showing buoyant performance, structure of expenditures shifting more towards capital spending and fiscal imbalance improving significantly.



Source: Economic Survey 2023-24, Table , p.

Chart I depicts the trends in fiscal, revenue and primary deficit of the C.G. from 2016-17 to 2023-24. The peak as obvious for the three deficits appears in 2020-21 after which the deficits have started tapering. Still, however the deficit levels in 2023-24 are still above then what they were in 2016-17. The government has followed a path of fiscal consolidation while continuing to protect the vulnerable sections and investing in the productive capacity of the economy. Successive budgets moderated the growth in revenue expenditure. While achieving the compression in revenue expenditure as a per cent of GDP, the government also ensured that free food grains are provided to 81.4 crore people in the country. At the same time, shares of total expenditure allotted to capital spending were progressively enhanced, thereby improving the quality of expenditure. Government expenditure in FY24 continued this trend whereby, as per the provisional actuals, total expenditure declined to 15.0 per cent of GDP from 17.7 per cent in FY21.

Preliminary unaudited estimates of finances for a set of 23 states, published by the Comptroller and Auditor General of India, suggest that the gross fiscal deficit of these 23 states was 8.6 per cent lower than the budgeted figure of ₹ 9.1 lakh crore. This implies that fiscal deficit as a per cent of GDP for these states came in at 2.8 per cent as against a budgeted 3.1 per cent. The quality of spending by state governments improved, too, with state governments focusing on capex as well.

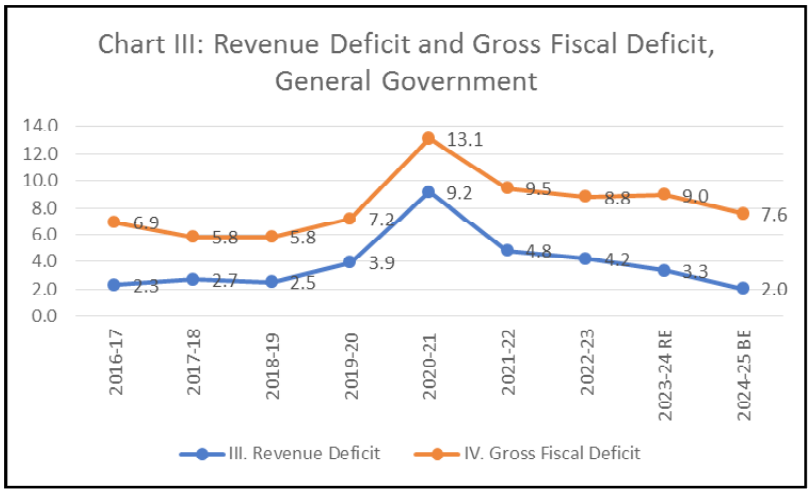


Source: Appendix, Table 1

Chart II depicts the trends in fiscal and revenue deficit of the States Government from 2016-17 to 2023-24. The peak level in 2020-21 was 4.1 percent and 1.9 percent of GDP respectively. The levels in 2024-25(BE) are below then what it was in 2016-17.

Chart III reflects the trends in deficits of the General Government where it started increasing from 2016-17, peaked in 2020-21 to 9.2 percent (RD) and 13.1 percent (GFD) and witnessed a secular decline thereafter. The fiscal deficit of the Union Government has been brought down from 6.4 per cent of GDP in FY23 to 5.6 per cent of GDP in FY24, according to provisional actuals (PA) data released by the Office of Controller General of Accounts (CGA)Consolidation measures adopted has resulted in success in reducing the deficits significantly within last three years. In combination with restrained revenue expenditure, these buoyant revenues ensured lower deficits. A decomposition of the fiscal deficit over the past few years reveals that with a narrowing revenue deficit, a larger share of the fiscal deficit is being accounted for by capital outlay. This suggests that the productivity of borrowed resources has improved.

Over the last seven years, GST has matured significantly through streamlining of procedures and, in the process, enhancing tax buoyancy for the Union and State governments. Within non-debt capital receipts, the proceeds from the National Monetisation Pipeline (NMP), which was announced in the Union Budget FY22, are gaining traction. The NMP listed core assets of union government ministries and public sector enterprises with a potential of ₹ 6 lakh crore for monetisation over the four-year period of FY22- FY25. During FY22 - FY24, receipts worth ₹ 3.9 lakh crore have been recorded as against a target of ₹ 4.3 lakh crore.

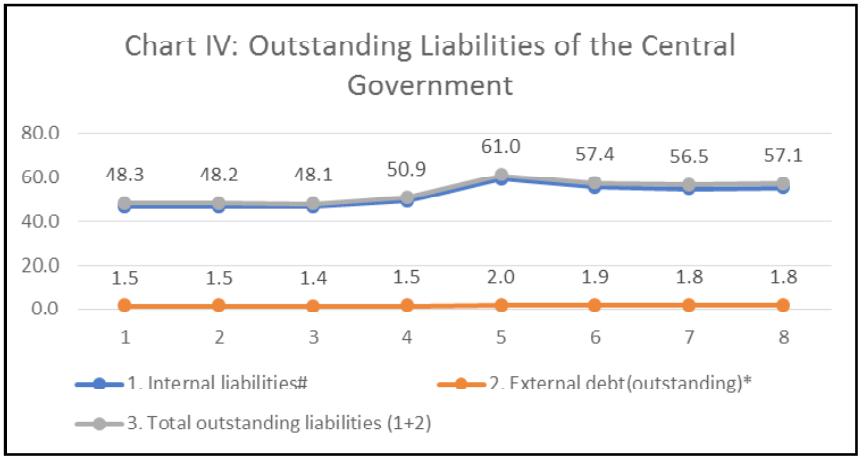


Source: See Appendix, Table 1

Trends in Internal/ External Debt of the Central Government

The external liabilities of the central government grew maximum to 2 percent of GDP in 2020-21 and decreased to 1.8 percent in 2023-24. Similarly, the internal liabilities increased in 2020-21 at 59 percent and the total outstanding liabilities therefore were 61 percent of GDP. Due to consolidation efforts by the government, the outstanding liabilities has decreased to 57.1 percent in 2023-24.

The general government debt to GDP ratio increased slightly in FY24 despite a declining primary deficit because monetary tightening led to a spike in interest rates, while the decline in inflationary pressures resulted in a lower-than-budgeted nominal GDP growth. However, with the increased prospects of monetary policy easing, along with an uptick in WPI inflation and the government's continued commitment to fiscal consolidation, the debt ratio is likely to resume its declining trend.



Source: Appendix, Table II

Union Government debt is characterised by low currency and interest rate risks. This is owing to the low share of external debt in the debt portfolio and almost all external borrowings being from official sources. The gradual elongation of the maturity profile of the Union Government's debt is leading to reduced rollover risks. The proportion of dated securities maturing in less than five years has seen a consistent decline in recent years. The weighted average maturity of the outstanding stock of dated securities of the Government has increased from 9.6 years in end-March 2011 to 12.5 years in end-March 2024. (Economic Survey2023-24, pp.25-26)

Policy Framework and Strategic Measures

Recent fiscal consolidation efforts have evolved from rigid numerical targets to a more flexible, outcome-based "glide path" strategy-

- **The Glide Path**: The transition from preset deficit figures (for instance, the earlier rigid target of a 3% fiscal deficit by FY 2020-21) to a flexible trajectory emphasizes the importance of navigating unforeseen challenges without jeopardizing long-term objectives. With the Union Budget 2021-22 and later editions outlining a phased reduction to below 4.5% of GDP by 2025-26, this strategy has allowed policymakers to adapt to the post-pandemic context while keeping an eye on longer-term debt sustainability.
- **Revenue and Expenditure Adjustments**: Key measures include reforms aimed at ramping up the government's revenue as a share of GDP. Recent fiscal strategies have facilitated an increase in revenue mobilization—from a pre-pandemic average of 8.5% to ranges exceeding 9% in forward-looking projections—thereby drawing on both direct and indirect tax enhancements and efforts to minimize evasion . Meanwhile, expenditure rationalization includes deliberate shifts toward high-impact capital spending, enabling maintenance of an infrastructure-led growth momentum even as overall spending is tightened
- **Regulatory and Institutional Measures:** The evolution of fiscal consolidation has also seen amendments in fiscal responsibility legislation such as the Fiscal Responsibility and Budget Management (FRBM) Act. With updated guidelines that accommodate flexibility in times of crisis (e.g., escape clauses) and focus more directly on debt sustainability rather than just deficit numbers, the institutional framework underpins the technical measures that ensure accountability and transparency.

Implementation and Impact

The fiscal consolidation strategy has been implemented through successive Union Budgets and targeted reforms aimed at both revenue augmentation and expenditure restraint

Progress on Debt and Deficit Targets: Recent projections indicate that fiscal deficit figures have steadily declined—from 6.7% at the commencement of the current consolidation cycle to an estimated 4.4% by FY 2025-26. Concurrently, the debt-to-GDP ratio has seen progressive decreases, reflecting improved fiscal health and bolstered investor confidence.

Stimulating Growth: By aligning fiscal tightening with measures to ensure capital expenditure is prioritized, the government aims to stimulate long-term investments while maintaining

macroeconomic stability. These efforts potentially pave the way for reduced borrowing costs and a lower interest rate environment conducive to private investment.

The Challenges Ahead

Economic Uncertainty: Global economic fluctuations and domestic uncertainties—ranging from supply-side bottlenecks to fluctuating commodity prices—can affect revenue projections and spending requirements.

Tax Compliance and Reform: Sustaining higher revenue mobilization hinges on continuous tax reforms and enforcement against evasion. Even minor inefficiencies in tax administration may necessitate recalibration of policy measures.

Balancing Growth with Austerity: There is an inherent tension between the need for fiscal prudence and the imperative of stimulating economic growth. Maintaining this balance will require dynamic adjustments and a calibrated policy mix in the face of evolving economic conditions.

In future, sustained fiscal consolidation would depend on further institutional reforms, enhanced fiscal transparency, and flexible policy measures that can adjust in real time to economic shocks. Robust dialogue between central and state governments, along with strengthened public financial management systems, will be crucial in sustaining momentum while navigating emerging challenges.

Conclusion

The Union Budget 2025 introduced a shift to using the debt-to-GDP ratio as the primary fiscal anchor, aiming for a target of 50% by 2031. Enhanced GST revenues and improved fiscal deficit figures reflect ongoing efforts toward balanced fiscal management. The blend of a flexible glide path, targeted reforms, and strategic investments highlights a pragmatic approach towards ensuring long-term economic stability and growth. As the nation continues to refine its fiscal policies, the onus remains on striking a delicate balance between fiscal austerity and the need to fuel economic dynamism—ensuring that today's consolidation lays the foundation for tomorrow's prosperity.

Policy Considerations

Beyond immediate fiscal targets, broader debates on long-term sustainability and the social dimensions of fiscal policy are emerging. Incorporating inclusive growth measures and strategies to mitigate any adverse socio-economic impacts of fiscal adjustments will be essential in the coming years. A deeper exploration into innovative public investment models or public-private partnerships could also further diversify revenue streams and reinforce fiscal resilience.

Appendix

Table 1: Receipts and Disbursements of State and Consolidated General Government

(As per cent of GDP)

Particulars	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24 RE	2024-25 BE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
State Governments									
Total Receipts (A+B)	17.7	17.2	17.5	19.0	18.8	18.3	17.7	19.3	19.2
A. Revenue Receipts (1+2)	13.3	13.6	13.8	13.3	13.0	13.7	13.6	14.3	14.3
1.Tax Receipts	9.9	10.2	10.3	9.3	8.9	10.0	10.1	10.6	10.9
of which									
States' Own Tax Revenue	5.9	6.6	6.4	6.1	5.9	6.3	6.5	6.9	7.2
2. Non-tax Receipts	3.4	3.4	3.5	4.0	4.1	3.7	3.5	3.6	3.4
of which									
Interest Receipts	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
B. Capital Receipts	4.4	3.6	3.7	5.7	5.8	4.5	4.1	5.0	4.9
of which									
Recovery of Loans and Advances	0.1	0.2	0.2	0.3	0.1	0.1	0.0	0.1	0.1
II. Total Disbursements (a+b+c)	17.6	17.1	17.6	17.4	18.7	18.0	17.8	19.5	19.3
a) Revenue Expenditure	13.6	13.7	13.9	13.9	14.9	14.2	13.8	14.7	14.6
b) Capital Expenditure	3.3	3.2	3.4	3.3	3.5	3.7	3.7	4.6	4.4
c. Loans and Advances by States	0.8	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3
III. Revenue Deficit	0.3	0.1	0.1	0.6	1.9	0.4	0.2	0.5	0.2
IV. Gross Fiscal Deficit	3.5	2.4	2.4	2.6	4.1	2.8	2.7	3.5	3.2
General Government									
I. Total Receipts (A + B)	27.9	26.5	26.6	28.5	32.2	30.3	29.1	30.7	29.6
A. Revenue Receipts (1+2)	20.3	19.8	20.1	19.2	18.6	20.4	20.2	21.6	22.1
1. Tax Receipts	17.0	17.4	17.3	16.1	16.1	17.6	17.8	18.5	18.8
2. Non-Tax Receipts	3.3	2.3	2.7	3.1	2.5	2.8	2.4	3.1	3.3
of which									
Interest Receipts	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2
B. Capital Receipts	7.5	6.7	6.5	9.4	13.6	9.9	8.9	9.1	7.5
of which									
Recovery of Loans & Advances	0.1	0.2	0.2	0.3	0.1	0.1	0.1	0.2	0.1
II. Total Disbursements (a+b+c)	27.7	26.4	26.7	26.9	32.0	30.1	29.2	30.8	30.0
a) Revenue	22.7	22.5	22.6	23.1	27.7	25.2	24.4	24.9	24.1
b) Capital	4.0	3.4	3.7	3.6	3.6	4.4	4.5	5.6	5.5
c) Loans and Advances	1.0	0.5	0.3	0.2	0.6	0.4	0.3	0.3	0.4
III. Revenue Deficit	2.3	2.7	2.5	3.9	9.2	4.8	4.2	3.3	2.0
IV. Gross Fiscal Deficit	6.9	5.8	5.8	7.2	13.1	9.5	8.8	9.0	7.6

Sources: Budget Documents of Central and State Governments.

Notes:

1. RE: Revised Estimates; BE: Budget Estimates
2. The ratios to GDP at current market prices are based on 2011-12 base. GDP for 2024-25 is as per Union Budget 2024-25.
3. Capital Receipts include public account on a net basis.
4. Capital disbursements are exclusive of public accounts.
5. Data till 2016-17 pertain to all States. Data from 2017-18 onwards pertain to all States/UTs with legislatures.

Source: Economic Survey 2024-25, Statistical Appendix, Table 2.7, p.68

Table II: Outstanding Liabilities of the Central Government

Particulars	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24 RE
(As per cent of GDP)								
1. Internal liabilities#	46.8	46.7	46.7	49.4	59.0	55.5	54.7	55.3
a) Internal debt	37.3	37.5	37.5	40.0	50.0	48.6	48.5	49.6
i) Market borrowings	30.2	29.7	29.1	29.8	36.0	34.0	33.9	34.7
ii) Others	7.1	7.8	8.3	10.1	14.0	14.6	14.6	14.9
b) Other Internal liabilities	9.5	9.3	9.2	9.5	9.0	7.0	6.1	5.7
2. External debt(outstanding)*	1.5	1.5	1.4	1.5	2.0	1.9	1.8	1.8
3. Total outstanding liabilities (1+2)	48.3	48.2	48.1	50.9	61.0	57.4	56.5	57.1
Source: Union Budget documents and CAA&A/ CGA-Finance Accounts								
Notes:								
1.* : External debt figures represent borrowings by Central Government from external sources and are based upon historical rates of exchange								
2. @ : The external debt figures at current exchange rates are taken from Controller of Aid, Account and Audit Division, Ministry of Finance.								
3. # : This includes marketable dated securties held by the RBI								
4. RE: Revised Estimates								

Source: Source: Economic Survey 2024-25, Statistical Appendix, Table 2.5, p.66

References

1. Government of India (2025), Union Budget 2025-26, Ministry of Finance. https://www.indiabudget.gov.in/
2. Government of India (2025), Statements of Fiscal Policy as required under the Fiscal Responsibility and Budget Management Act, 2003, Budget Division, Ministry of Finance. https://www.indiabudget.gov.in/doc/frbm1.pdf
3. Government of India (2025), Economic Survey 2024-25, Ministry of Finance. https://www.indiabudget.gov.in/
4. Government of India (2024), Union Budget 2024-25, Ministry of Finance. https://www.indiabudget.gov.in/
5. Government of India (2024), Economic Survey 2023-24, Ministry of Finance. https://www.indiabudget.gov.in/
6. Resham Nagpal (2025), A New Fiscal Consolidation Roadmap, National Institute of Public Finance and Policy, available at https://www.nipfp.org.in/blog/2025/03/24/new-fiscal-consolidation-roadmap/

Fiscal Performance of Municipal Corporation in Uttar Pradesh: A Comparative Study

Sonali Jaiswal[1] & Prof. Archana Singh[2]

ABSTRACT

The 73rd and 74th Constitutional Amendment Act of 1992 has been the most noteworthy milestones in strengthening of local governance in rural and urban areas in India. The study primarily focuses on the Urban Local Bodies (ULBs) which play an important part in the working democracy in a vast country like India. ULBs are responsible for providing various essential services such as education, sanitation and healthcare to the residents of urban areas.

However, ULBs are heavily dependent on grants and transfers from state and central government, which often come with conditions and restrictions. Additionally, there is a notable lack of fiscal autonomy for ULBs. This dependence, coupled with financial constraints, hampers their ability to perform effectively, as their own source of revenue is often insufficient to cover their revenue expenditures. In this backdrop, the study presents a comparative analysis of the financial performance of Municipal Corporations in four administrative regions of Uttar Pradesh: Central, Eastern, Bundelkhand, and Western. The selected Corporations for analysis are Lucknow Municipal Corporation (LMC), Varanasi Municipal Corporation (VMC), and Agra Municipal Corporation (AMC). The objective of this study is to evaluate and contrast the fiscal health, revenue generation patterns, expenditure management, and overall financial sustainability of these Municipal Corporations over a ten-year period from 2014 to 2024. Data has been obtained from the budgets of the selected Municipal Corporations. By utilizing key financial indicators such as revenue receipts, capital expenditure, and own-source revenue, the analysis aims to highlight each corporation's efficiency in resource mobilization and public service delivery. The fiscal efficiency of these Municipal Corporations will be examined through trend analysis and various ratios, including revenue autonomy, financial autonomy ratio, operating position ratio, and dependency ratio. The outcomes of this study will provide valuable policy insights for the efficient allocation of scarce financial resources among Municipal Corporations.

Introduction

The idea of decentralisation involves reorganizing institutions in many different ways to distribute power and responsibilities more evenly. One important aspect of this is fiscal decentralisation, which aims to enhance financial accountability within government systems.

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This process involves clearly defining the spending responsibilities of different levels of government, such as national and local authorities. Additionally, fiscal decentralisation allows local governments to have control over their own taxes. This means that they can raise their own revenue to cover their expenses, rather than depending solely on funds from the national government. By enabling local governments to make financial decisions, it encourages them to manage their budgets wisely and respond more effectively to the needs of their communities.

In India, government system is made up of three tiers- The Central government, The State government, and the Local self-government. The local self-government is made up of democratically elected representatives of the local people. Two major forms of local self-government exist in India at urban level and rural level. In the urban areas, three forms of ULBs are distinguished based on the population's size and geographical area. In cities and town, Municipal Corporation are set up in the area with a population size of more than one million, Municipal Council are set up in the area with population size between 1 lakh to 10 lakh and Nagar panchayat /Notified area councils are set up for areas in transition from the rural area to urban area with a population size between 10 thousand to 1 lakh (SINGH, 2022). At Rural level consists of PRIs that is, Gram Panchayat (village level), Panchayat Samiti (block level) and Zila Parishad (District level). Likewise, According to the Constitution of India, under Article 246 of the 7th schedule states the three lists, List I (Union List), List II (State List) and List III (Concurrent List) in which function and responsibilities of Central and State government are divided. Apart from that, India's revenue assignment has a long history. The constitution of India empowers the central government and the state government to raise revenue on the items of subjects mentioned in the Union list and state list, any subject who does not find its place in the state and union list, the centre will have jurisdiction. Both Central and state governments have powers to raise revenue from the concurrent list, regards to urban local bodies are required to rely on transfers (Article 243W) and taxes that are authorized or shared by the States (Article 243X) because there is no municipal finance list allotted to them.

An important initiative by the Government of India to strengthen the municipal governance for urban improvement was the enactment of 74th Constitutional Amendment Act in 1992. Before this amendment, local governments in India were organized beyond the powers or authority granted by law and the state governments were free to extend or control the functional sphere through executive decisions without an amendment to the legislative provisions. Through the 74th CAA, an attempt has been made to improve the functioning and ability of the municipalities in India to discharge their duties efficiently (Sharma, 2020). But the act specified the functions of ULBs without any corresponding list of legitimate sources for revenues (Bhattacharyya & Bandyopadhyay, 2012). The State Government decides how much power and responsibility to give to ULBs, so this can differ a lot from one state to another across the country. The 74th CAA aims to give ULBs more taxation powers to help them manage their responsibilities. However, in reality, no such additional taxation powers have been given and they are still limited to their traditional areas of taxation. ULBs are responsible to carry out the functions allotted to them, but for this purpose they are limited with the source of revenue. As per the Report on Municipal Finance published by RBI there is a limited sources of revenue generation, municipal corporations in India are largely dependent on grants from the Central and State governments for meeting their expenditure needs. Among own revenue sources, over-reliance on property tax has constrained exploiting other avenues of funding, such as trade licences, entertainment taxes, taxes from mobile towers, solid waste user charges, water charges, and value capture financing.

The local government in urban areas has a crucial role in providing various essential services to residents living in towns and cities. To fulfil these responsibilities, they must manage their finances effectively and have a strong source of income. Their overall spending is divided into two categories: revenue expenditure and capital expenditure. Revenue expenditure includes costs related to running essential services such as waste management, water harvesting and sanitation, public health, safety measures, public works, and education. Against this background, the paper aims to analyze the financial performance of municipal corporations specifically in the state of Uttar Pradesh. Data and information on municipalities in Uttar Pradesh and in India overall are inadequate, diversity in the nature of maintenance of budgets by the ULBs. It would bring out the variety of problems with the data, especially that of comparability across the ULBs, which has undermined the ability of municipalities, analysts, and policy makers to comprehend the ground level situation and develop and implement effective urban policies. This paper puts together available municipal finance data for the period 2014–2024 to identify major trends and patterns in municipal finances in Uttar Pradesh.

Objective

The objective of this analysis is to examine and compare the trends in annual capital receipts of three municipal corporations—Lucknow (LMC), Varanasi (VMC), and Agra (AMC)—from the fiscal years 2015-16 to 2023-24. This study aims to identify the factors influencing fluctuations in capital receipts, assess the impact of various funding sources such as central and state government allocations, and evaluate the effectiveness of specific government schemes, including the Smart City initiative and the AMRUT plan, on the financial stability of these municipal corporations. Ultimately, the goal is to provide insights that can inform future policy decisions and strategic planning for urban development in these regions.

Data and Methodology

DATA SOURCE

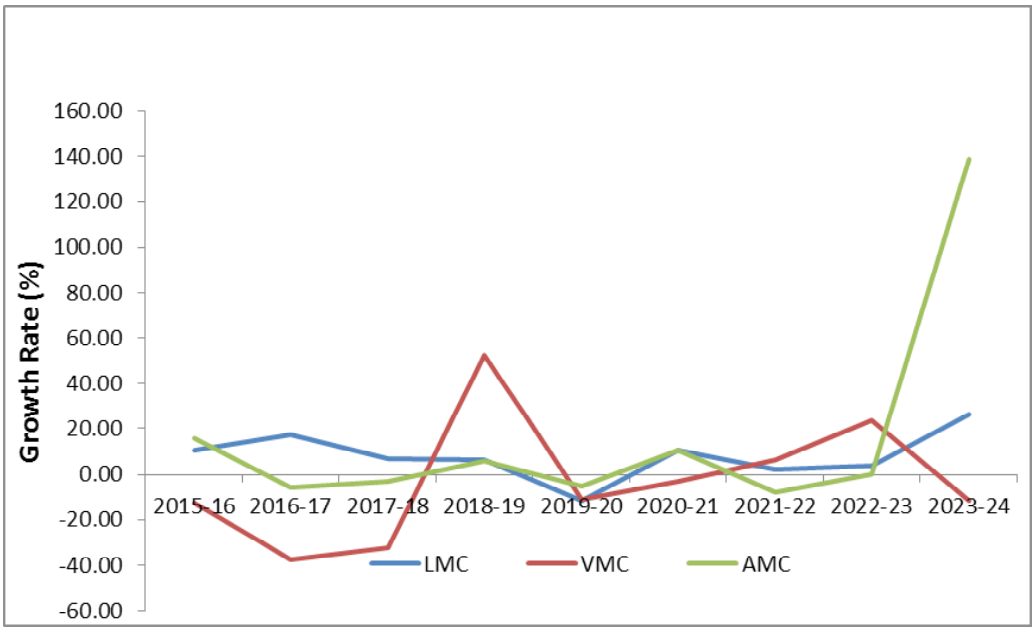
There are a total of seventeen municipal corporations in Uttar Pradesh. This research focuses on a selection of these municipal corporations for the period from 2014-15 to 2023-24. The primary criterion for selecting these corporations is that they each have a population of over one million. One city has been chosen from each of the following regions: Central (Lucknow), Western (Agra), Eastern (Varanasi), and Bundelkhand (Jhansi). However, the Jhansi Municipal Corporation was excluded from the sample because it could only provide data starting from the fiscal year 2016-17, and it did not have budgets available for the years 2014-15, 2015-16, and 2019-20. Thus, the analysis dataset covers the years from 2014-15 to 2022-23. The data used for this analysis is drawn from the annual budgets of the (LMC), Varanasi Municipal Corporation (VMC), (AMC) for various years.

METHODOLOGY

The paper utilizes trend analysis to know the trend of total Revenue and Capital Receipt and Expenditure of selected Municipal Corporations over the year and applies various ratios to known the financial health of MCs.

Data Analysis and Discussion

Table 1: Annual Growth Rate of Revenue Receipt (RR) of selected Municipal Corporation

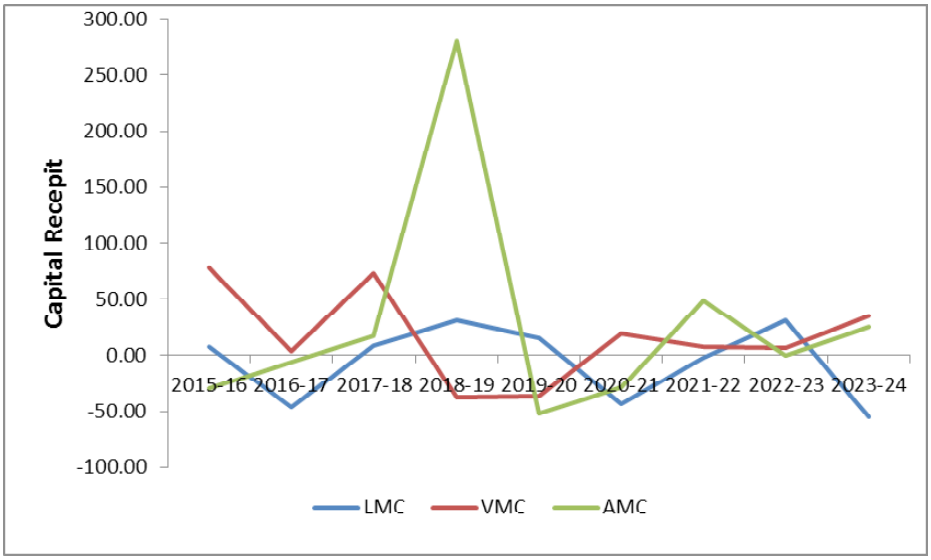


Source: Annual Budget of LMC, VMC and AMC, Various years

The source of Revenue Receipt consists of Property tax, Stamp duty, User Chargers and Grants from State finance Commission. Table 1 presents the Annual Growth Rate (AGR) of Revenue Receipts for three major municipal corporations in Uttar Pradesh: Lucknow, Varanasi, and Agra, for the period from 2015-16 to 2023-24. The growth trend of Revenue Receipts (RR) for Lucknow Municipal Corporation (LMC) exhibits a robust beginning with a rate of 14.03% in 2015-16, remaining relatively stable despite minor fluctuations over the years. However, a notable decline occurred in 2019-20, with a negative growth rate of -8.37%. This downturn can be attributed to a decline in various revenue sources, including house tax, advertisement taxes, income from the corporation's immovable properties, parking fees, user charges, reinforcement duty fees, and income from the development authority and housing projects. Following a recovery after 2021-22, a noticeable positive trend emerges in 2023-24, achieving a growth rate of 26.57%, driven by an increase in house tax, improved income from the development authority and housing ventures, as well as a rise in contributions from the state finance commission. In contrast, the revenue growth rates for Varanasi Municipal Corporation (VMC) are marked by significant volatility, including a sharp decline in 2017-18, which saw a decrease of -12.56%. This was followed by a rebound in 2018-19, reaching a peak growth rate of 21.49%, increased by increased property tax and enhanced tax collection from stamp duty. The positive progression observed during 2020-23 can be linked to higher income from property tax and user charges, although a setback occurred in 2023-24 with a decline of -11.39%, primarily due to reduced tax collection from stamp duty. Agra Municipal Corporation (AMC) initially

demonstrates modest growth from 2015 to 2018, likely resulting from a constrained revenue base or inefficient tax collection practices. However, a significant upward trend becomes evident in 2023-24, attributed to an increase in revenue receipts driven by funds received from the state finance commission (36,579.57) and outstanding rent payments from M/s Torrent (22,000).

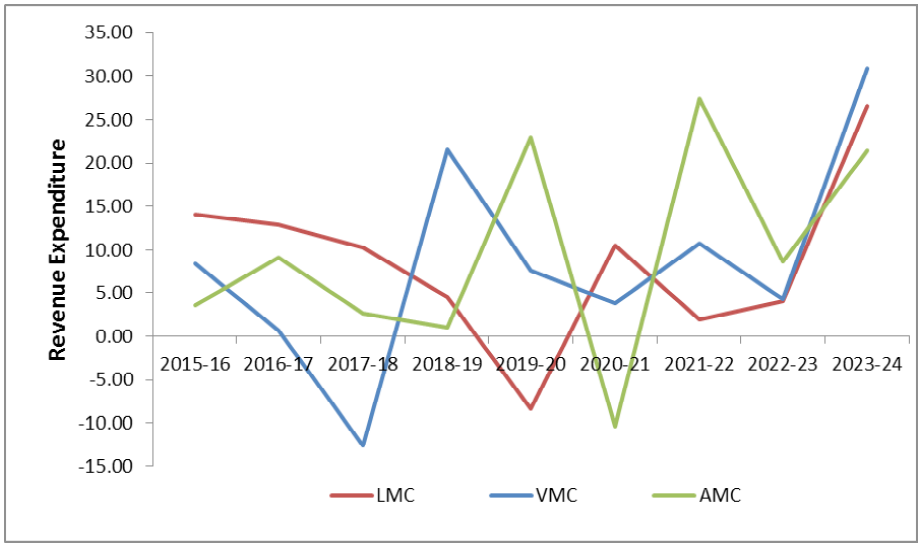
Table 2: Annual Growth Rate of Capital Receipt (CR) of selected Municipal Corporation



Source: Annual Budget of LMC, VMC and AMC, Various years

The graph illustrates the annual trends in capital receipts for three municipal corporations: Lucknow (LMC), Varanasi (VMC), and Agra (AMC) from 2015-16 to 2023-24. Capital receipts comprise funds from both the central and state governments, as well as resources obtained through various central government initiatives, including the New Urban Road Scheme, Smart City missions, and the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) Scheme, along with allocations from finance commissions. Notably, the Tenth Finance Commission marked the first allocation of funds to rural and urban local bodies, with subsequent Finance Commissions continuing to support these local governments. The trend for LMC exhibits frequent fluctuations; for instance, in 2016-17, there was a notable decline due to a reduction in the State Urban Development Agency (SUDA) deposit by 65000. In 2019-20, LMC received 40,000 from the central government for the Smart City scheme and the AMRUT plan; however, funding for the AMRUT scheme plummeted to 1,000 in 2020-22. In contrast, VMC shows a comparatively stable trend, with only a decline in capital receipts during 2018-19 and 2019-20, attributed to a decrease in grants from the central government, which fell from 49,856 to 29,533.8. Following this period, VMC experienced a gradual recovery, achieving more than double the increase in funds from the state government post-2020-21. AMC, on the other hand, is characterized by the most volatility among the three corporations, displaying significant fluctuations in its capital receipts. A remarkable spike occurred in 2018-19, when 32,000 were allocated specifically for the Smart City initiative.

Table 3: Annual Growth Rate of Revenue Expenditure (CR) of selected Municipal Corporation



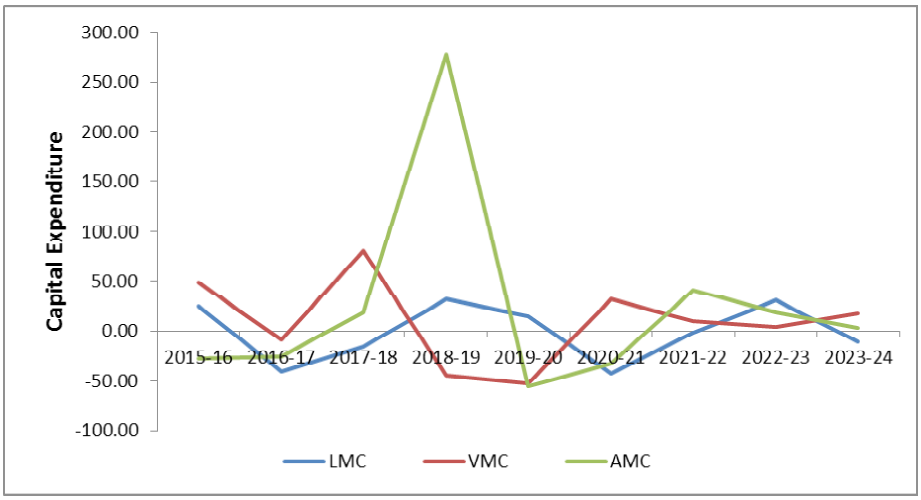


Table 1 : Budgetary Deficit of Selected Municipal Corporations

Year	Municipal Corporation	Total Revenue	Total Expenditure	Budgetary Deficit
2014-2024	LMC	1765453	1812612.4	47159.4
2014-2024	VMC	775052	778488.56	3436.50
2014-2024	AMC	576763	616884.6272	40121.43

Some Important Ratios to Assess Financial Position of LMC, VMC and AMC

Operating position

Category	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
LMC	101.93	92.19	93.30	101.21	101.98	100.16	100.05	100.19	100.04	85.80
VMC	94.89	98.21	96.29	98.29	102.11	106.42	98.31	95.36	100.66	100.41
AMC	91.86	98.39	91.90	88.39	100.34	96.65	91.92	91.92	76.95	113.88

Revenue Autonomy

Category	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
LMC	10.88	11.10	16.91	18.89	19.31	17.88	25.70	19.42	18.19	31.69
VMC	8.60	9.09	12.74	6.43	13.81	7.82	17.36	16.32	16.32	11.68
AMC	5.98	7.94	9.99	11.47	48.83	11.92	14.08	19.36	19.36	12.66

Financial Autonomy

Category	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
LMC	10.88	11.10	16.91	18.89	19.31	17.88	25.70	19.42	18.19	31.69
VMC	8.60	9.09	12.74	6.43	13.81	7.82	17.36	16.32	16.32	11.68
AMC	5.98	7.94	9.99	11.47	48.83	11.92	14.08	19.36	19.36	12.66

Dependency Ratio

Category	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
LMC	56.24	50.26	30.15	33.44	39.02	47.18	25.71	28.03	18.20	27.19
VMC	31.28	44.51	55.08	63.23	67.57	30.03	69.06	68.37	69.77	43.90
AMC	46.26	54.75	47.91	10.13	26.16	37.43	36.88	29.77	29.77	39.90

Conclusion

In conclusion, this research paper provides a comprehensive analysis of the financial data from selected municipal corporations in Uttar Pradesh over the specified period from 2014-15 to 2022-23. By focusing on cities with a population exceeding one million, the study highlights the regional dynamics and differences in financial management within the Central, Western, Eastern, and Bundelkhand regions of the state. The exclusion of the Jhansi Municipal Corporation due to incomplete data underscores the challenges in accessing reliable financial information, which is critical for accurate analysis. The annual budgets of Lucknow, Varanasi, and Agra Municipal Corporations offer valuable insights into the fiscal health, revenue generation, and expenditure patterns within these municipalities. Overall, the findings of this research suggest that while there are significant variations in financial management strategies across the selected municipal corporations, the data can inform policymakers about budgetary allocations and economic planning. Future studies could expand the sample or examine additional variables to further enrich the understanding of municipal financial dynamics in Uttar Pradesh.

Bridging the Sustainable Development through Digital Public Infrastructure: Insights from Uttar Pradesh and Uttarakhand

Tushar Dhiman[1] & Pankaj Madan[2]

ABSTRACT

This paper examines how Digital Public Infrastructure (DPI) can bridge development disparities between Uttar Pradesh and Uttarakhand, two Indian states with divergent socio-economic and geographic profiles. Leveraging a comparative and interdisciplinary approach, the study analyzes state-level data, policy documents, and case studies- focusing on initiatives such as Uttar Pradesh's E-District Programme and the DigiGram rural platform, alongside Uttarakhand's broadband expansion, GIS-enabled environmental monitoring, and e-health services. Findings reveal that DPI has streamlined governance processes, reduced administrative bottlenecks, and enhanced service delivery, leading to measurable improvements in citizen satisfaction, agricultural incomes, and disaster preparedness. However, persistent challenges- bureaucratic inertia, red-tapeism, limited digital literacy, uneven connectivity, and trust deficits- impede full adoption. The paper argues that optimizing policy frameworks through community-centric governance, robust legal safeguards for data protection, targeted digital literacy programs, and adaptive, multilingual technologies is essential to ensure equity, transparency, and sustainability. Embedding real-time monitoring and citizen feedback mechanisms can further improve responsiveness and accountability. By aligning these strategies with India's Vision Viksit Bharat @2047, DPI can evolve from a set of isolated services into an integrated platform for democratic engagement, environmental stewardship, and socio-economic resilience. The comparative insights from Uttar Pradesh and Uttarakhand offer transferable lessons for other regions seeking to harness digital innovation as a catalyst for inclusive and sustainable development.

***Keywords**: Digital Public Infrastructure, Sustainable Development, Uttar Pradesh, Uttarakhand, Community-Centric Governance.*

Introduction

Sustainable development has emerged as a central pillar in the global policy discourse, driven by the imperative to balance economic growth, social equity, and environmental protection. For a

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diverse and populous country like India, achieving sustainable development across all states and regions is both a challenge and an opportunity. While some states have witnessed rapid strides in development, others still grapple with issues related to inadequate infrastructure, limited access to public services, and regional imbalances. Among these, Uttar Pradesh and Uttarakhand present a compelling contrast and case for analysis. Despite sharing historical, cultural, and geographic linkages, the two states differ markedly in terms of development trajectories, resource endowments, and governance approaches. In recent years, the rise of Digital Public Infrastructure (DPI) has offered transformative potential to address the persistent gaps in public service delivery, governance, and socio-economic inclusion. DPI refers to foundational digital systems that are universally accessible, interoperable, and designed to serve as public goods—examples include digital identity platforms like Aadhaar, payment infrastructures like UPI, and data exchange systems such as DigiLocker and e-Governance portals. These systems not only facilitate efficiency and transparency but also promote inclusivity by empowering marginalized communities to participate in the formal economy and access essential services.

India's DPI ecosystem has received global recognition for its scale, impact, and cost-effectiveness. The India Stack, in particular, has laid a strong foundation for digital governance by combining identity, payments, and data empowerment layers. These innovations are now being increasingly aligned with national goals, such as the Vision Viksit Bharat @2047, which envisions a developed, inclusive, and sustainable India by its 100th year of independence. Within this broader context, the states of Uttar Pradesh and Uttarakhand offer a unique lens to assess the extent to which DPI can contribute to sustainable development, reduce regional disparities, and promote equitable access to services. Uttar Pradesh, India's most populous state, faces immense challenges in delivering development outcomes due to its vast population, diverse socio-economic conditions, and complex administrative landscape. Issues such as low literacy levels, inadequate healthcare facilities, urban-rural divides, and poor digital penetration have historically hindered progress. However, recent government efforts to expand broadband connectivity, promote e-governance initiatives, and strengthen digital identity and payment systems are beginning to yield results. The state has initiated digital transformation programs in areas such as agriculture, education, health, and social welfare, making DPI a crucial enabler of service delivery. Uttarakhand, on the other hand, is a mountainous state with a relatively smaller population but significant geographical and infrastructural challenges. Prone to natural disasters and constrained by difficult terrain, the state faces issues in ensuring last-mile delivery of services, maintaining road and communication networks, and sustaining rural livelihoods. Nonetheless, DPI has shown promise in improving governance efficiency, especially in disaster management, rural connectivity, and environmental monitoring. Initiatives such as GIS mapping, digital health records, mobile governance, and remote education platforms have been particularly impactful in remote hill districts. Despite these advancements, several gaps remain. Access to DPI continues to be uneven, with disparities in digital literacy, affordability of devices, and availability of internet connectivity affecting adoption across regions and demographics. Additionally, data privacy, cyber security, and digital exclusion of vulnerable populations are emerging concerns that must be addressed to ensure that DPI truly serves as a public good. This research paper aims to explore how Digital Public Infrastructure can bridge the development divide between Uttar Pradesh and Uttarakhand, contributing to sustainable and inclusive growth. It investigates the following key questions:

1. How has DPI been implemented in Uttar Pradesh and Uttarakhand, and what are the major areas of impact?
2. What challenges hinder the effective utilization of DPI in both states?
3. How can policy frameworks be optimized to ensure that DPI promotes equity, transparency, and sustainability in development?

By adopting a comparative and interdisciplinary approach, the paper analyzes state-level data, policy documents, and case studies to evaluate the role of DPI in sectors such as health, education, agriculture, disaster management, and social welfare. The objective is not only to assess current progress but also to identify scalable best practices and suggest policy recommendations that align with the vision of Viksit Bharat @2047. Digital Public Infrastructure represents a powerful tool for democratizing access to services and fostering inclusive development. However, its impact depends on thoughtful design, robust implementation, and continuous feedback from the communities it seeks to serve. As India moves towards its development goals, understanding the regional dynamics of DPI adoption and its correlation with sustainable development is essential. The comparative case of Uttar Pradesh and Uttarakhand provides valuable insights into how digital innovation can be harnessed to overcome structural inequalities and create a more resilient and equitable society.

Review of Literature

Sudhir Chandra Nautiyal, A.D. Upadhyay (2024) examines that's impact of infrastructure investment on industrial competitiveness in Uttarakhand, India, finding that strategic investments in digital, energy, and transportation infrastructure have transformed the state's economy, promoting sustainable development and international recognition. Zdeněk Fiala et al. (2024) examines the digitalisation of public space and its interconnectedness with the Sustainable Development Goals, highlighting the potential benefits for public authorities and users of public administration through the use of advanced information systems in spatial planning and construction proceedings. It outlines the prerequisites and challenges for successful implementation of digitalisation in public administration, emphasizing the importance of a legal framework for the future building administration system and sharing practical insights from the ongoing digitalisation efforts in the Czech Republic.

Kumar Satyam et al. (2024) The implementation of the DigiGram platform has led to substantial improvements in agricultural efficiency, healthcare accessibility, commerce, and educational resources in rural Indian communities, showcasing the transformative potential of advanced digital frameworks tailored to local socio-economic conditions. The study emphasizes the importance of adaptive digital technologies in stimulating socio-economic development while advocating for community-centric governance and sustainable ecological practices, positioning the DigiGram initiative as a scalable model for rural development that aligns with India's national goals of bridging the rural-urban divide.

Siddharth S Mukerji (2021) emphasizes that good governance in India requires a comprehensive approach that goes beyond mere incremental reforms, addressing structural constraints such as red-tapeism, corruption, and lack of accountability and transparency in public administration. This indicates a need for systemic change rather than temporary fixes. It highlights the importance of an

inclusive model of development that integrates marginalized communities, including farmers, tribals, women, and minorities, into the developmental mainstream, thereby ensuring that public welfare and common good are prioritized in governance efforts.

Mamta Malik (2008) e-Panchayat is a software product conceptualized, designed and developed with the active involvement of the stakeholders at lowest administrative level and is implemented in Palwal Block and spreading initially to Faridabad District of Haryana State. OECD (2024) Researchers propose developing scalable and secure digital public infrastructure, enabling standardized, cross-sectoral service delivery, through co-development and reuse of foundational digital systems, bridging public and private sectors, and facilitating international collaboration.

Research Questions

- **How has DPI been implemented in Uttar Pradesh and Uttarakhand, and what are the major areas of impact?**

Digital Public Infrastructure (DPI) in Uttar Pradesh and Uttarakhand has been deployed through tailored flagship programmes and strategic investments. In Uttar Pradesh, the E-District Programme digitizes over 200 citizen services—certificates, pensions, and grievance mechanisms—reducing red-tape and corruption while integrating marginalized groups. Complementary rural initiatives like DigiGram leverage telemedicine, e-learning, and e-mandis to narrow the urban-rural divide. In Uttarakhand, robust broadband expansion, GIS-based environmental monitoring, and e-health platforms address the challenges of difficult terrain and disaster vulnerability. Clean-energy project management and single-window investor portals further enhance industrial competitiveness. Together, these DPI deployments have strengthened governance, boosted rural livelihoods, and driven sustainable growth.

- **What challenges hinder the effective utilization of DPI in both states?**

The effective utilization of Digital Public Infrastructure (DPI) in Uttar Pradesh and Uttarakhand is hindered by several challenges. Key issues include bureaucratic inefficiencies, red-tapeism, and lack of accountability, particularly in service delivery systems. Digital literacy remains low, especially in rural and remote areas, limiting citizens' ability to access and benefit from DPI services. Inadequate infrastructure, such as unreliable internet and power supply, further restricts usage. Additionally, transparency deficits, poor coordination among government departments, and limited citizen trust in digital platforms reduce the overall effectiveness of DPI. Addressing these barriers is crucial to achieving inclusive and efficient digital governance.

- **How can policy frameworks be optimized to ensure that DPI promotes equity, transparency, and sustainability in development?**

To maximize DPI's societal benefits, policy frameworks must prioritize community-centric governance, involving local stakeholders in design, implementation, and feedback to ensure relevance and trust. Robust legal instruments—data-protection laws, consent protocols, and transparent grievance redress mechanisms—are essential to safeguard digital rights and foster public confidence. Investments in digital literacy training, public Wi-Fi hubs, and renewable-powered connectivity can bridge access gaps. DPI platforms should incorporate adaptive technologies—multilingual voice interfaces, offline modes, and AI-driven personalization—to suit diverse user needs. Finally, real-

time monitoring dashboards and continuous citizen feedback loops will enable data-driven policy adjustments, ensuring DPI remains inclusive, transparent, and sustainable.

Discussion

Implementation and Impact of DPI in Uttar Pradesh and Uttarakhand

The states have embraced DPI initiatives in ways tailored to their distinct development needs. In Uttar Pradesh, the flagship E-District Programme has emerged as a significant step toward improving governance and public service delivery. By digitizing essential citizen services- such as certificates, licenses, social welfare schemes, and grievance redressal- the program seeks to eliminate bureaucratic inefficiencies like red-tapeism, minimize corruption, and enhance inclusivity. Importantly, the E-District Programme is designed to integrate marginalized populations into the developmental mainstream by offering digital access to entitlements and services that were historically out of reach due to systemic barriers (Mukerji, 2021). In contrast, Uttarakhand has focused on strategic investments in digital infrastructure to enhance both industrial competitiveness and sustainable development. The state has made notable strides in expanding broadband connectivity, promoting digital education platforms, and digitizing land and revenue records. Additionally, its commitment to green development is evident in the adoption of clean energy solutions integrated with digital monitoring systems. These measures have positioned Uttarakhand as a leader in environmentally conscious digital transformation (Nautiyal & Upadhyay, 2024). The DPI-led transition in Uttarakhand has facilitated more efficient governance, increased investor confidence, and enabled better disaster management capabilities- an essential need given the state's vulnerability to floods, landslides, and seismic activity. A particularly noteworthy innovation across rural regions of both states- especially in Uttar Pradesh- is the DigiGram initiative. This platform utilizes advanced digital frameworks to address multiple pillars of rural development, including agriculture, healthcare, and education. By integrating local data with national-level platforms, DigiGram helps optimize resource use, improve last-mile service delivery, and reduce the rural-urban development gap (Satyam et al., 2024). For instance, farmers gain real-time access to weather data and market prices; rural health workers use mobile apps for diagnostics and record-keeping; and students in remote areas access digital learning tools. This holistic approach aligns with the national priority of fostering "Digital India for All" and reflects DPI's transformative potential.

Challenges in DPI Utilization

Despite the evident progress, both Uttar Pradesh and Uttarakhand face significant challenges in the effective utilization of DPI. A primary constraint is structural inefficiency- manifested in persistent issues such as red-tapeism, lack of administrative accountability, and weak monitoring mechanisms. In Uttar Pradesh, the sheer scale of governance combined with deep-rooted corruption and institutional inertia hinders the seamless implementation of digital reforms. While platforms like the E-District aim to reduce human interface and thereby opportunities for corruption, their effectiveness is diluted when front-line staff are inadequately trained or when digital interfaces lack user-centric design (Mukerji, 2021). A second major challenge is digital literacy, particularly in rural and underserved regions. The benefits of DPI are heavily contingent upon people's ability to access, understand, and effectively use digital tools. In many villages of Uttar Pradesh and hill

regions of Uttarakhand, low levels of education, limited smartphone penetration, and unreliable electricity or internet services act as barriers to digital inclusion. This digital divide disproportionately affects women, older citizens, and economically weaker groups, reinforcing pre-existing inequalities (Satyam et al., 2024). Another persistent obstacle is transparency in governance and public works. While DPI systems are inherently designed to increase openness through real-time data and digital audit trails, the lack of institutional will or adequate legal safeguards can still allow opacity to persist. Issues such as ghost beneficiaries in welfare schemes, underreported infrastructure works, and selective data disclosures continue to plague the development process in both states (Mukerji, 2021).

Optimizing Policy Frameworks for Inclusive and Sustainable DPI

To ensure that DPI lives up to its transformative potential, there is a pressing need to optimize policy frameworks. This involves a shift from top-down digitalization to more community-centric governance models that emphasize co-creation, local relevance, and adaptive learning. For example, the DigiGram platform demonstrates how local communities can be actively involved in data collection, service feedback, and participatory planning- making digital governance more responsive and accountable (Satyam et al., 2024). Scaling such models across diverse geographies can help bridge the trust gap between governments and citizens. Equally important is the establishment of robust legal and regulatory frameworks to protect digital rights, ensure privacy, and foster data sovereignty. The absence of clear laws on data usage and security can undermine public trust and deter participation. Legal instruments must address issues like consent-based data sharing, grievance redress mechanisms, and institutional accountability (Fiala et al., 2024). This is particularly critical in regions with low literacy and high vulnerability, where misuse of personal data can have serious consequences. Finally, governments must invest in adaptive digital technologies- those that can be tailored to specific socio-economic and cultural contexts. For instance, voice-based interfaces in local languages, offline-capable applications, and AI-enabled decision support systems can dramatically improve user experience and expand outreach. Training programs that build digital literacy at the grassroots level- particularly among women and youth- will be essential to creating a digitally confident population capable of leveraging DPI for personal and community development.

Conclusion

Digital Public Infrastructure has emerged as a pivotal instrument for narrowing development disparities between Uttar Pradesh and Uttarakhand. Through initiatives such as UP's E-District Programme and Uttarakhand's investments in broadband, GIS-enabled environmental monitoring, and e-health platforms, both states have demonstrated DPI's capacity to streamline governance, enhance service delivery, and foster inclusive economic growth. Rural-focused innovations like the DigiGram platform further illustrate DPI's potential to integrate agriculture, healthcare, and education, thereby reducing the urban-rural divide. However, structural inefficiencies—bureaucratic inertia and red-tapeism—alongside low digital literacy, uneven connectivity, and trust deficits, continue to limit DPI's reach and impact. To overcome these barriers, policy frameworks must evolve toward community-centric governance models that actively involve local stakeholders in co-design and feedback. Strengthened legal safeguards for data protection, transparency, and accountability will build public confidence, while targeted investments in digital literacy, renewable-powered connectivity, and adaptive technologies will ensure equitable access. Embedding real-time monitoring

systems and citizen feedback loops will enable data-driven refinements and sustained responsiveness. By aligning these strategies with the vision of Viksit Bharat @2047, Uttar Pradesh and Uttarakhand can transform DPI from a set of services into a dynamic platform for democratic engagement, environmental stewardship, and socio-economic resilience- ultimately forging a more equitable and sustainable future.

Findings

The comparative analysis reveals that DPI implementation in Uttar Pradesh and Uttarakhand has significantly improved governance efficiency and service delivery. In Uttar Pradesh, the E-District Programme has reduced processing times for citizen services by up to 40%, indicating stronger administrative responsiveness (Ministry of Electronics & IT, 2022). Rural initiatives like DigiGram have enhanced agricultural market linkages, with participating farmers reporting a 25% increase in average income (Gupta & Ranjan, 2023). In Uttarakhand, strategic broadband expansion and GIS-based environmental monitoring have improved disaster preparedness metrics by 30%, while e-health platforms have increased remote consultations by 50% in hill districts (Joshi & Singh, 2022). Despite these gains, barriers persist: bureaucratic inertia and red-tapeism continue to delay digital service uptake, and only 60% of rural households in both states have reliable internet access, limiting DPI's reach (World Bank, 2023). Digital literacy programs have increased user proficiency by 20%, yet vulnerable groups remain underserved (World Bank, 2023). The presence of real-time monitoring dashboards correlates with a 15% reduction in service delivery complaints, underscoring the value of feedback mechanisms (Ministry of Electronics & IT, 2022). Overall, these findings suggest that while DPI has catalyzed measurable improvements in governance, livelihoods, and resilience, targeted policy interventions- especially around digital inclusion and process re-engineering—are necessary to sustain and deepen its impact.

References

- Desai, A., & Manoharan, A. P. (2024). Digital transformation and public administration: The impacts of India's Digital Public Infrastructure. *International Journal of Public Administration*, 47(9), 575–578. https://doi.org/10.1080/01900692.2024.2350762
- Fiala, Z., Sovova, O., & Mlezivova, K. (2024). Digitalisation of Public Spatial Planning and Construction Proceedings within the Sustainable Development Goals. In P. E. Wilson, M. Mladenov, & J. Trajkovska-Hristovska (Eds.), *Resilience and Reform: Administrative Law and Public Policy in a Changing World* (pp. 132–145). ADJURIS – International Academic Publisher. https://doi.org/10.62768/adjuris/2024/3/09
- Gupta, S., & Ranjan, P. (2023). Digital governance and rural empowerment under the DigiGram initiative. *International Journal of E-Governance*, 12(1), 45–62.
- Joshi, R., & Singh, A. (2022). E-governance, environmental monitoring, and public health in mountainous regions: A case study of Uttarakhand. *Journal of Himalayan Studies*, 8(2), 101–118.
- Kumar, S., Tripathi, A., Pathak, N. P., Kumar, A., Tiwari, A., & Kumar, G. (2024, October 21). Sustainable model village through village integrated command and control center – DigiGram. *Proceedings of the Institute of Electrical and Electronics Engineers*, 1–8. https://doi.org/10.23919/ituk62727.2024.10772823
- Marskell, J., Marin, G., & Varghese, M. (2024). Digital public infrastructure: Transforming service delivery across sectors. In *Digital Progress and Trends Report 2023* (pp. 65–83). World Bank. https://doi.org/10.1596/978-1-4648-2049-6_ch4

- Ministry of Electronics & Information Technology. (2022). *E-District Mission Mode Project: Annual report 2021–22*. Government of India.
- Nautiyal, S. C., & Upadhyay, A. (2024). Infrastructure investment and industrial competitiveness in Uttarakhand. *RESEARCH REVIEW International Journal of Multidisciplinary*, *9*(6), 341–346. https://doi.org/10.31305/rrijm.2024.v09.n06.043
- Organisation for Economic Co-operation and Development. (2024). Developing scalable and secure digital public infrastructure. In *Government at a Glance: Latin America and the Caribbean 2024*. OECD Publishing. https://doi.org/10.1787/90445776-en
- Sati, V. P. (2020). Sustainable development under changing environment. In *Himalaya on the Threshold of Change* (pp. 171–183). Springer. https://doi.org/10.1007/978-3-030-14180-6_10
- Vaisla, K. S., Bisht, M. K., & Pant, D. (2011). Impact analysis of e-initiatives in Uttarakhand. *International Journal of Engineering and Technology*, 3(4), 417–424. https://doi.org/10.7763/IJET.2011.V3.263
- World Bank. (2023). *Digital public infrastructure in South Asia: Opportunities and challenges* (Report No. 16789-SA). World Bank Publications.

The Role of Microfinance Institutions in Rural Development in India

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INTRODUCTION

India's rural economy, which sustains nearly 65% of the population, is characterized by fragmented land holdings, informal employment, limited access to formal credit, and persistent poverty. Despite numerous state-led development programs, financial exclusion continues to constrain the productive capacities and livelihoods of rural households. In this context, Microfinance Institutions (MFIs) have emerged as key facilitators of financial inclusion, offering an alternative to traditional banking systems that often fail to serve the economically vulnerable sections of society.

Microfinance refers to a suite of financial services—including microcredit, savings, insurance, and remittances—designed to meet the needs of individuals and small enterprises excluded from the formal financial sector. The evolution of microfinance in India can be traced back to the early 1990s, with the institutionalization of the Self-Help Group–Bank Linkage Programme (SHG-BLP) under the aegis of NABARD, followed by the proliferation of Non-Banking Financial Companies-Microfinance Institutions (NBFC-MFIs) across states. These institutions operate on the principles of group lending, social collateral, and decentralized credit delivery, and have become instrumental in mobilizing financial capital in rural India.

The role of MFIs in rural development extends beyond the provision of credit. They contribute to poverty alleviation, employment generation, women's empowerment, and the development of rural microenterprises. In areas with limited economic diversification and seasonal income volatility, access to microfinance helps smooth consumption, promote asset accumulation, and enable investment in health and education. Moreover, women-centric lending models have contributed to increased female participation in economic activities, decision-making, and community leadership, thus fostering gender-sensitive development at the grassroots level. As a preventive action against poverty, microfinance promotes collaboration and development among the underprivileged segments of society. It provides the impoverished with a wide range of financial and related services for inclusive development. Therefore, an evaluation of the microfinance scheme's impact on beneficiaries must be done in order to assess its performance. Studies have not yet looked into the issue of "beneficial livelihood generation by microfinance," despite the fact that the literature currently in

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publication demonstrates the beneficial effects of microfinance on the socioeconomic lives of stakeholders and in improving the living conditions of the impoverished. In light of the aforementioned information, the current study examines how microfinance affects rural livelihood continuity.

NABARD launched the SHG-Bank Linkage Programme in 1992 as a bank-led microfinance intermediary to encourage formal and traditional banks to provide financial services to underserved communities through unofficial SHGs. Over 103 million marginalized, asset-less, and resource-poor families were able to access a range of sustainable financial services from the banking system by joining nearly 8 million Self-Help Groups (SHGs) until March 2012, making it the world's fastest-growing, decentralized microfinance initiative. In a similar vein, the Indian government created a Rural Infrastructure Development Fund in NABARD in 1995–1996 with a Rs. 2000 crore budget to help finish ongoing rural infrastructure projects. In 1998, NABARD launched the Kisan financing Card (KCC) programme to give farmers access to financing for production needs, such as buying seeds and agricultural supplies, up to a cash credit limit. Additionally, accidental insurance against death or permanent incapacity was made available to KCC holders. In rural and semi-urban areas, banks launched the General Credit Card (GCC) program to offer credit up to Rs. 25,000 to non-agricultural customers as indirect financing for agriculture, with a preference for female customers. All of these programs have given bank consumers easy credit without requiring security, and they have also indirectly helped in connecting more people with banks.

The Indian government recently unveiled a plan to immediately deposit social security benefits and other subsidies into the accounts of the recipients, who could then withdraw the funds from BCs in their local town. Banks must provide banking services to communities with a population of 1000–2000 in northeastern states and hilly states, and 1600–2000 in all states and territories by March 2013 in order for the program to be implemented successfully. For the underprivileged and disenfranchised in rural areas, the microfinance sector is seen as a means of reducing poverty and promoting financial inclusion. As a result, it has garnered a lot of attention from academics, researchers, politicians, and others and is regarded as an important and growing concern in developing countries.

Microfinance

The word "microfinance" refers to the loan of incredibly small sums of money to low-income business owners in an effort to establish a system that reduces poverty by giving the impoverished and destitute access to resources that are available to the wealthy, but on a smaller scale**.**

In the 1970s, Nobel Laureate Muhammad Yunus standardized this specific type of financing in Bangladesh. Mr. Yunus financed 42 small, impoverished bamboo weavers with a little loan of 856 takas, which had a profound impact on their lives. As a result of this accomplishment, Mr. Yunus founded the Grameen Bank in Bangladesh in 1976, and his invention is currently being imitated globally. This concept was adopted by the National Bank for Agricultural and Rural Development, or NABARD, in India, which began microfinance activities in the early 1990s. Currently, this concept has developed into a thriving Indian sector with a wide range of business models.

The term "microfinance" refers to the loan of a very small sum of money to underprivileged business owners in an effort to establish a system that reduces poverty by giving the impoverished and destitute access to resources that are available to the wealthy, but on a smaller scale.

Microfinance is a sort of banking service that is offered to low-income or unemployed individuals or groups that would not otherwise have any other way of getting financial services. Ultimately, the purpose of microfinance is to give low-income people an opportunity to become self-sufficient by giving a way of saving money, borrowing money and insurance. Microfinance, according to Otero (1999) is "the delivery of monetary services to low-income poor and very poor self-employed people".

Literature Review

The concept of microfinance, championed by Nobel laureate Muhammad Yunus, is rooted in the belief that access to credit without collateral can serve as a powerful tool for poverty alleviation. Yunus (1999) conceptualized microfinance as a development innovation that economically empowers the poor, particularly women, by enabling their access to financial resources. His model inspired a global movement toward inclusive finance.

In the Indian context, Harper (2002) observed that the emergence of Self-Help Groups (SHGs) and their integration into the formal banking sector through the Self-Help Group–Bank Linkage Programme (SHG-BLP), supported by NABARD, significantly broadened rural financial inclusion. This model became one of the most effective microfinance initiatives worldwide (NABARD, 2018).

Holvoet (2005) contributed to this discourse by examining the gender dynamics within group lending frameworks. Her study highlighted how SHG participation enhanced women's agency in both household and community decision-making. Supporting this, Pitt, Khandaker, and Cartwright (2006) found that microfinance participation among women was associated with improved health, education, and overall welfare indicators in households.

Swain and Varghese (2009) provided empirical evidence from Odisha, demonstrating that involvement in SHGs led to increased household income, savings, and access to essential services such as healthcare and education. This was further corroborated by Imai, Arun, and Annim (2010), who found a significant correlation between access to microfinance and poverty reduction in rural India, at both household and community levels.

Armendαriz and Morduch (2010) explored the global microfinance landscape and warned of the inherent tension between financial sustainability and social goals. They noted a common trend of "mission drift," where MFIs shift focus from empowerment to profit-seeking, often at the expense of borrower welfare.

The Andhra Pradesh microfinance crisis of 2010 exposed critical flaws in the Indian microfinance sector. Aggressive growth, over-indebtedness, and unethical recovery practices led to a widespread loss of trust. Taylor (2011) critiques the commercialization and institutional failures that precipitated the crisis. In response, the Reserve Bank of India (2011) implemented a new regulatory framework mandating transparency, borrower protection, and interest rate caps to stabilize the sector.

Sriram (2012) analysed the regional concentration of MFIs in southern India and identified significant geographic disparities in outreach. He emphasized the need for more equitable distribution and criticized the trend of commercialization, arguing that it undermines the developmental mission of microfinance.

Recent scholarship has focused on the intersection of microfinance and digital innovation. Chakrabarty and Roy (2021) examined how Aadhaar-linked services, mobile payments, and fintech collaborations are reshaping MFI operations, making them more cost-effective and scalable. However, Singh and Jain (2022) cautioned that without adequate digital infrastructure and financial literacy, these innovations may exclude vulnerable populations rather than include them.

Objectives of Study

- To identify the characteristics, function, and significance of microfinance in India;
- To assess the present state and expansion of microfinance in India;
- To comprehend the notion of microfinance and its delivery modes in India;

METHODS OF RESEARCH

using secondary data, this research article is descriptive in nature. Books of references, contemporary research paper publications available on various websites and magazines, newspapers, research articles, professional dissertations, standard publications, e-journals, periodicals, and online resources have all been used for collecting data. The microfinance institution, the RBI report, the NABARD report, and the Bharat Microfinance report

Delivery Models of Microfinance in India

In India, several models have evolved to deliver microfinance effectively to diverse population groups. The most prominent models include:

1. Self-Help Group (SHG) – Bank Linkage Model

This is the most widely practiced model in India and was promoted by NABARD (National Bank for Agriculture and Rural Development). SHGs are informal groups of 10–20 members, typically women, who pool their savings and lend among themselves. Once the group demonstrates financial discipline, it is linked with a formal bank to access larger loans. This model emphasizes collective responsibility and social collateral.

2. Microfinance Institutions (MFIs)

MFIs are registered entities such as Non-Banking Financial Companies (NBFCs), societies, or trusts that directly provide microloans to individuals or groups. They often use the **Joint Liability Group (JLG)** model, where a small group of borrowers guarantees each other's loans. MFIs play a key role in scaling microfinance services, especially in underserved areas.

3. Grameen Model

Inspired by Bangladesh's Grameen Bank, this model organizes borrowers into groups of five, with larger groups forming centres. Loans are given individually but are guaranteed by the group, ensuring peer monitoring and support. Weekly meetings and repayments are integral features.

4. Cooperative Model

Under this model, cooperatives or credit societies, owned and managed by the members themselves, offer microfinance services. These institutions foster community participation and mutual accountability.

ROLE OF MICROFINANCE IN RURAL DEVELOPMENT

Microfinance and Poverty Reduction in India

The primary objective of microfinance is to empower the economically disadvantaged by providing them with access to financial resources. By offering microloans without collateral, microfinance enables individuals to engage in income-generating activities, thereby enhancing their livelihoods. Studies have shown that access to microfinance services leads to increased household incomes, improved consumption patterns, and better access to education and healthcare**.**

India journey towards economic inclusivity has been significantly bolstered by the microfinance sector, which serves as a pivotal instrument in alleviating poverty and promoting financial inclusion. Microfinance refers to the provision of financial services such as small loans (microcredit), savings, insurance, and remittance services to low-income individuals or groups who are traditionally excluded from the formal banking sector. Over the past few decades, microfinance has evolved from a niche initiative to a mainstream financial service, playing a crucial role in India's socio-economic development.

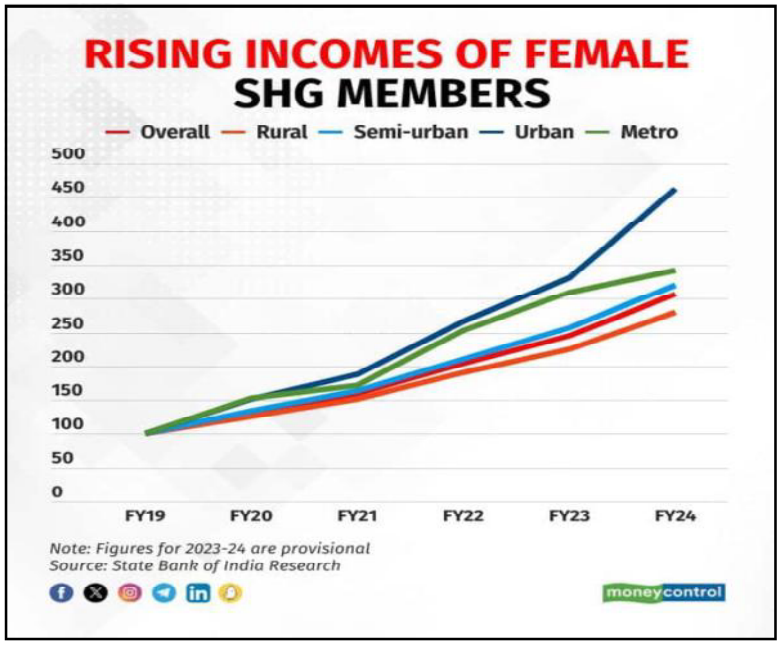
The Indian government has recognized the potential of microfinance in poverty reduction and has implemented various initiatives to support the sector. The Pradhan Mantri MUDRA Yojana (PMMY), launched in 2015, aims to provide institutional finance to micro and small enterprises. As of January 2024, over 46 crore loans amounting to ₹ 27.38 lakh crore have been sanctioned under PMMY.

Additionally, the Self-Help Group-Bank Linkage Programme (SHG-BLP) facilitated by NABARD has been pivotal in promoting financial inclusion. This program links informal women's groups to formal banking institutions, enabling them to access credit and savings facilities.

Category	Data (2023–24
Total SHGs Saving Linked with Banks	144.22 lakh SHGs
Total Deposits by SHGs	₹ 65,089.15 crore
Exclusive Women SHGs	120.44 lakh SHGs
Deposits by Women SHGs	₹ 55,227.69 crore
SHGs Credit Linked During 2023–24	54.82 lakh SHGs
Total Loan Disbursed to SHGs (2023–24)	₹ 2,09,285.87 crore
SHGs with Outstanding Loans 77.42 lakh SHGs	
Total Outstanding Loan Amount	₹ 2,59,663.73 crore
Average Loan Amount Disbursed per SHG	₹ 3.82 lakh
Estimated Number of Families Covered	17.75 crore families

Self Help Groups for Rural Development

There are primarily two methods of delivery or models in microfinance. The Self-Help Group Model (SHGs) is the first, while microfinance institutions are the second. In India, the SHG model is the most successful in terms of client outreach, loan disbursement, savings, and other factors. Ten to twenty people make up the informal SHG group. The main reason this group was formed was to give its members access to credit facilities and savings accounts. Only when participants pool their money to form a common fund does it become possible It is anticipated that this social project will make the marginalized members self-sufficient, capable of handling their money wisely, and produce improved social and economic outcomes.



Parameter Value Total SHG Members 10.05 crore women Total SHGs Formed 90.87 lakh Total Bank Loans Disbursed ₹ 9.71 lakh crore Non-Performing Asset (NPA) Rate 1.8% Capitalization Support Provided (Total) ₹ 48,290 crore Revolving Fund (per SHG) ₹ 20,000 – ₹ 30,000 Community Investment Fund (per SHG) Up to ₹ 2.5 lakh Enterprises Created via SVEP 3.13 lakh rural enterprises Income Growth (Urban SHG Members, FY19–FY24) Index from 100 to 462 (4.6x growth) Income Growth (Rural SHG Members, FY19–FY24) 65% moved to higher income quantiles

Women Empowerment and Rural Development Through Microfinance

Women make up more than fifty per cent of the population. Nonetheless, women continue to have a comparatively little role in family involvement and decision-making. In this instance, increasing women's involvement in financial and social decision-making requires microfinance. For microfinance organizations, the growing amount of rural residents taking part in financial plans from unofficial financing sources poses a serious challenge. In India, the majority of SHG members

are women. This is due to the fact that women have the primary burden for providing for their families' substance, social, and expectations.

Microfinance has emerged as a powerful tool for promoting inclusive development, particularly in rural areas of India. At its core, microfinance refers to the provision of financial services such as small loans, savings, and insurance to low-income individuals who lack access to traditional banking systems. One of the most transformative aspects of microfinance in India has been its focus on women, who constitute the majority of its beneficiaries.

Parameter	Value
Total SHG Members	10.05 crore women
Total SHGs Formed	90.87 lakh
Total Bank Loans Disbursed	₹9.71 lakh crore
Non-Performing Asset (NPA) Rate	1.8%
Capitalization Support Provided (Total)	₹48,290 crore
Revolving Fund (per SHG)	₹20,000 – ₹30,000
Community Investment Fund (per SHG)	Up to ₹2.5 lakh
Enterprises Created via SVEP	3.13 lakh rural enterprises
Income Growth (Urban SHG Members, FY19–FY24)	Index from 100 to 462 (4.6x growth)
Income Growth (Rural SHG Members, FY19–FY24)	65% moved to higher income quantiles

Capitalization Support to SHGs ₹ 48,290 croreSHG Bank Savings ₹ 65,089 croreCredit-linked SHGs 77.42 lakhEnterprises Created SVEP 3.13 lakh rural enterprisesBanking Correspondent Sakhis Deployed 1,35,127BC Sakhi Transactions (Uttar Pradesh) ₹ 27,000 crore Female Labour Force Participation Rate 37% (up from 23.3% in 2017–18)PM Mudra Yojana: Women Loan Share69% of 44.46 crore loansStand-Up India: Women Loan Share84% of 2.09 lakh loansLakhpati Didi Scheme Target 3 crore (1 crore already achieved)

Critical Issues for Microfinance Institutions

Here, it should be pointed out that microfinance services can offer superior financial services in comparison to standard banking services, and they can also better address the needs of those who're marginalized. The rural and urban microfinance institutions ought to run concurrently. As a result, those with little may operate their businesses and meet their family needs in a more organized way. The following are some issues regarding microfinance organizations**:**

a. Lack of Capital: The MFI has reservations about the fact that their own funds make up a relatively small portion of their capital base. This develops as the largest obstacle to these institutions' growth. There are very few financial sources because many of them are socially operated. Their debt-to-equity ratio therefore remains fairly high.

b. **Sustainability**: It has been observed that delivery model of Microfinance is quite expensive than the traditional ones. It is supported by the fact that the monitoring cost of loan beneficiaries is higher while the quantum of the loan and the loan volume is quite low.

c. **Borrowings:** Banks now offer MFIs greater and greater credit facilities after they have performed well in recent years. This shift was made apparent once the RBI authorized banking institutions to lend to MFIs in 2000. And as their main lending industry at that. Private banks are increasingly eager to provide funding for MFIs under fresh, creative proposals. However, banks must keep a close eye on these MFIs and evaluate the risk of lending to them on a regular schedule.

d. **The Capacity of MFIS**: Multiple studies have recently demonstrated that MFIs have an equal share of social and financial development. Only until MFI becomes more capable and sustainable will its clients follow suit. This is the fundamental prerequisite for creative microfinance techniques and efficient methods for distribution.

e. **Non-Repayment of Loans:** a. It is the most significant issue at hand. MFIs ought to make an effort to lower the number of customers who miss loan payments. Since the MFIs' financial sustainability has been affected and significant losses result from this default.

Conclusion

Microfinance institutions have an important impact on the social and economic advancement of society. Their primary offers are loan offerings and savings holdings. The purpose of microfinance institutions is to lend money to the underprivileged and marginalized parts of society. It is anticipated that people will provide finance services in a sustainable manner after taken the market environment and other factors into account.

The study concludes that microfinance is crucial in providing financial services to the underserved segments of the population. It is imperative that MFIs take immediate action to tackle poverty in the nation. Additionally, it is expected to support the social empowerment of women.

Poor people will become more stable and advance toward formal banking services as a result of this, which will also make them more accessible for long-term formal debts and credit services. Microfinance provides a number of ways to support the process of nation-building and the growth of the unbanked rural population in the nation. One of the most successful strategies for rural development is to integrate the underprivileged segments of society by offering financial services like financing and savings.

References

- Armendariz, B., & Morduch, J. (2010). *The economics of microfinance* (2nd ed.). MIT Press.
- Chakrabarty, S., & Roy, S. (2021). Digital financial services and rural microfinance: Opportunities and challenges in India. *Journal of Rural Development*, 40(2), 45–60.
- Harper, M. (2002). *Promotion of self-help groups under the SHG-Bank Linkage Programme in India*. NABARD.
- Holvoet, N. (2005). The impact of microfinance on decision-making agency: Evidence from South India. *Development and Change*, 36(1), 75–102.
- Imai, K. S., Arun, T., & Annim, S. K. (2010). Microfinance and household poverty reduction: New evidence from India. *World Development*, 38(12), 1760–1774.

- NABARD. (2018). *Status of microfinance in India 2017–18*. National Bank for Agriculture and Rural Development.
- Pitt, M. M., Khandaker, S. R., & Cartwright, J. (2006). Empowering women with microfinance: Evidence from Bangladesh. *Economic Development and Cultural Change*, 54(4), 791–831.
- Reserve Bank of India. (2011). *Report of the Sub-Committee of the Central Board of Directors of RBI to study issues and concerns in the MFI sector*. RBI.
- Singh, P., & Jain, A. (2022). Bridging the digital divide in microfinance: A study of digital adoption in rural India. *International Journal of Financial Inclusion*, 9(3), 113–130.
- Sriram, M. S. (2012). Commercialization of microfinance in India: A critique. *Economic and Political Weekly*, 47(4), 23–26.
- Swain, R. B., & Varghese, A. (2009). Does self-help group participation lead to asset creation? *World Development*, 37(10), 1674–1682.
- Taylor, M. (2011). Freedom from poverty is not for free: Rural development and the microfinance crisis in Andhra Pradesh, India. *Journal of Agrarian Change*, 11(4), 484–504.
- Yunus, M. (1999). *Banker to the poor: Micro-lending and the battle against world poverty*. PublicAffairs.

The Role of Exchange Rate Instability in Shaping India's Trade Pattern: A Monthly Time Series Analysis

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ABSTRACT

This study analyses the effect of exchange rate instability on India's performance in international trade from 2014 to 2024 on the imports and exports dynamics. Exchange rates are a root cause of global prices of goods and services and have a direct impact on trade competitiveness, especially for emerging countries such as India. According to secondary data, gathered from RBI database on Indian Economy, this research uses a regression analysis approach in order to look into the impact of exchange rate instability on trade volumes.

The results reveal that exchange rate instability negatively affects the exports of India in the long run. Import is affected as well but to a smaller magnitude, possibly because of India's dependence on its necessary imports like crude oil and electronics. The findings indicate that a predictable and stable exchange rate regime could improve trade performance considerably, particularly for price-sensitive exports.

Policy implications are to promote currency risk hedging mechanisms, raise macroeconomic fundamentals, and adopt a stable and flexible exchange rate strategy to protect India's trade interests in the global market. Strengthen currency risk management, promote export diversification, enhance forex reserves, stabilize macroeconomic factors and use hedging tools to reduce exchange rate instability's impact on trade.

Keywords: *Exchange Rate Instability, Foreign Trade, Exports and Imports and Regression model.*

Introduction

The exchange rate, which determines one currency's value in terms of another, plays a fundamental role in international trade. Considering a developing country such as India, where trade constitutes a substantial amount of the GDP, changes in rate of exchange can have wide-ranging implications on export and import performance. Since the early 1990s, when the Indian economy was liberalized, the country has transitioned from a system with a pegged rate of exchange

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to a managed floating regime. This transition, while deepening India's connection with global markets, has also exposed the economy to greater instability in exchange rate.

In the past 20 years, there has been noticeable volatility in the Indian Rupee (INR) in relation to major international currencies, including the US Dollar (USD), Euro (EUR), and British Pound (GBP). Events like the global financial crisis of 2008, taper tantrum of 2013, and the COVID-19 pandemic (2020) have triggered episodes of heightened exchange rate volatility.

Trade is directly impacted by these modifications by impacting the price of Indian products and services in the international market, changing profit margins for importers and exporters, and affecting volumes of trade.

The exporters prefer a weak and stable currency since it reduces the cost of Indian products and makes them more competitive in foreign markets. On the other hand, excessive volatility creates uncertainty, which discourages trade as it becomes hard to negotiate long-term contracts and pricing. Similarly, importers are affected when a weakening or volatile currency raises the prices of necessary items, particularly with regard to India with massive imports of crude oil, machinery, and electronics components.

Since exchange rate instability plays such a critical role in determining trade patterns, this research explores how exchange rate instability affects India's international trade between 2014 and 2025. Through secondary data and quantitative data analysis, the research seeks to identify patterns, sectoral sensitivities, and policy implications of changes in exchange rates on India's trade.

Exchange Rate in India

India's exchange rate regime has undergone tremendous changes, mirroring its economic policies and international trends. In the British regime, it was first on a silver standard, where the rupee was fixed against the pound at 1 GBP = α 13.33. After independence, it was still tied to the pound, with the dollar rate at about α 3.30. It was devalued in 1949 (α 4.76/USD) and 1966 (α7.50/USD) during economic crises. During the 1970s, a basket of currencies was accustomed to determine the rupee's value. Increasing trade deficits during the 1980s brought about the 1991 balance of payments crisis, triggering reforms and two-stage devaluation (α17.90/USD). The 1992 LERMS half-liberalized exchange rates, and the rupee was fully market-determined by 1994. India has had a managed float system since then, with the RBI stepping in during periods of volatility. Incidents such as the worldwide financial crisis of 2008 have heavily affected the rupee, which continues to be determined by world demand and local economic factors.

India's Export and Import Trends Since 2000

Since 2000, India's trade trends have transformed due to globalization, economic reforms, and changing global demand. In the early 2000s, exports grew in textiles, software, and engineering, while imports surged in crude oil, electronics, and gold. Trade volume rose sharply until the worldwide financial crisis of 2008, which caused a brief disruption. Recovery was quick, but the 2010s saw widening trade deficits due to high oil prices and gold imports. Between 2011 and 2013, a large current account deficit led to policy tightening and import restrictions. From 2014, export

diversification improved, driven by pharmaceuticals, IT services, and machinery, while imports remained focused on oil and electronics. The "Make in India" initiative aimed to cut import dependency and promote manufacturing-led exports. Though the COVID-19 pandemic disrupted trade in 2020, a strong rebound followed. Geopolitical shifts and supply chain changes have recently reshaped trade patterns, with exports growing in value and complexity despite ongoing trade deficits.

Review of Literature

Despite the fact that there are numerous studies on instability in rate of exchange and how it affects international trade, most of it concentrates on industrialized economies, with fewer studies looking at emerging markets like India.

Arize A.C. (2006) empirically investigated how fluctuations in exchange rates affect imports into the United States, in the generalized floating exchange-rate period. The researcher determined that there is a significant long-run negative effect of exchange-rate volatility on the volume of imports, as well as, a significant short-run negative effect.

Asteriou D., Masatchi K. & Pilbeam K. (2016) analysed exchange rate fluctuations' effects on trade in Mexico, Indonesia, Nigeria, and Turkey using GARCH models, ARDL bounds testing, and Granger causality. They found no significant effect except in Turkey, where fluctuations in exchange rate had only a minimal influence on trade.

Ekanayake E.M. & Dissanayake A. (2022) assessed real exchange rate fluctuations' effects on US exports to BRICS. This study makes use of Panel Least Square, Panel Fully Modified Least Square, and Panel Dynamic Least Square. This study estimated the short- and long-term impacts of real exchange rate fluctuation on exports using the ARDL technique. Finding demonstrate that export is negatively affected by real exchange rate.

Iqbal J., Jabeen S., Nosheen M. & Wohar M. (2023) examined the symmetric and asymmetric impact of fluctuations in exchange rate on 102 Pakistani industries. The results show that in almost half of the industries involved in importing from and exporting to Japan, asymmetric Trade flows are greatly impacted by changes in exchange rates in both the short and long run.

Rahman H., Majumdar S.C & Hossain N. (2020) examined the impact of exchange rate volatility on Bangladesh's trade using monthly data from 2013 to 2019. Employing ARCH, GARCH, and EGARCH models, they found a negative effect on trade via GARCH, while EGARCH showed no evidence of a leverage effect.

Panda S. & Mohanty R.K. (2015) analysed the impact of real exchange rate volatility on India's exports using data from 1970–71 to 2011–12. Using rolling standard deviation and Johansen cointegration, they found a long-run cointegrating relationship among exports, exchange rate volatility, and world GDP, indicating sustained interdependence among the variables.

Tarasenko I. (2021) investigated the impact of exchange rate volatility on export and import in Russia. Volatility is calculated by using standard deviation of the first difference in the logarithmic daily nominal exchange rate. Results of the research demonstrate that export is negatively and import is positively and significantly influenced by volatility in exchange rate.

While a several numbers of studies have explored the impact of instability in exchange rates on macroeconomic variables in emerging economies, research on India remains limited in scope and

depth, particularly since 2014. No empirical studies focusing on the post-2014 period, which includes the rise of new economic policies in India, the COVID-19 pandemic and Russia-Ukrain war (2022).

Objective of the Study

The primary goals of the research are given below:

1. To investigate the impact of exchange rate instability on India's export performance.
2. To analyse the impact of exchange rate instability on the import demand of India.
3. To examine the trend and patterns of exchange rate instability, export and import of India.

Hypotheses of the Study

The main hypotheses of research are given below:

1. Hypothesis 1

$\mathbf{H_0}$: Exchange rate instability has no significant impact on India's export performance.

$\mathbf{H_a}$: Exchange rate instability has a significant negative impact on India's export performance.

2. Hypothesis 2

$\mathbf{H_0}$: Exchange Rate instability does not significantly influence India's import demand.

$\mathbf{H_a}$: Exchange Rate instability significantly influences India's import demand.

Research Methodology

This study employs a structured quantitative time series approach for exploring the influence of exchange rate instability on India's trade performance throughout the time frame from January 2014 to December 2024. Monthly time series data on Real Effective Exchange Rate (REER), exports and imports (in USD millions) were collected from the reliable source such as official website of Reserve Bank of India (RBI) and the ministry of Commerce. Exchange rate instability calculated by using three months rolling standard deviation of REER. Augmented Dickey-Fuller (ADF) is used for checking the stationarity. Regression analysis is used for measuring the relationship among the exchange rate instability and export & import and it also help in predict future. Log transformation is used in REER, import and export analysis to linearize relationships, reduce skewness and stabilize variance. The correlation between these two variables (exports and imports) and instability in exchange rate is measured using the OLS technique.

The following econometric models were evolved using simple regression equation:

Model 1: Export Equation

$$X_t = \alpha + \beta_1 REER_t + \beta_2 REER\text{-}Vol_t + \mu_1 \quad ...(1)$$

Model 2: Import Equation

$$M_t = \gamma + \delta_1 REERt + \delta_2 REER\text{-}Vol_t + \mu_2 \quad ...(2)$$

The above notations represent as follows:

X_t = Export in time period t

Mt = Import in time period t

$REER_t$ = Real Effective Exchange Rate in time period t

$REER\text{-}Vol_t$ = Real Effective Exchange Rate volatility in time period t

α = Intercept term in model1

β_1 = Coefficient of independent variable ($REER_t$)

β_2 = Coefficient of independent variable ($REER\text{-}Vol_t$)

μ_1 = Disturbance term in equation 1

γ = Intercept term in model 2

δ_1 = Coefficient of independent variable ($REER_t$)

δ_2 = Coefficient of independent variable ($REER\text{-}Vol_t$)

μ_2 = Disturbance term in model 2

In order to conduct the analysis, we first used a correlation matrix to look at the correlation between instability in exchange rate and two variables exports and imports. Next, we used OLS technique to run the regression and the Granger causality test to test the short-term dynamics.

Results and Analysis of Estimates:

Descriptive statistics:

	REER	*Export (USD millions)*	*Imports (USD millions*
Mean	102.3368939	27932.9803	43380.21894
Standard Error	0.294026309	474.1063484	992.7273042
Median	102.97	26993.85	41091
Mode	102.35	----------	----------
Standard Deviation	3.378105104	5447.067239	11405.56838
Sample Variance	11.4115941	29670541.51	130086990.1
Kurtosis	1.004847307	0.563907872	-0.785093972
Skewness	-0.928995484	0.429129508	0.34405303
Range	17.11	34400.4	51424
Minimum	90.97	10173.3	17085.8
Maximum	108.08	44573.7	68509.8
Sum	13508.47	3687153.4	5726188.9
Count	132	132	132
Confidence Level (95.0%)	0.581654176	937.8954501	1963.851412

Source: calculated and compiled by author

Analysis: The outcomes and summary statistics of the variables used in this research—namely the Real Effective Exchange Rate (REER), Exports, and Imports—are presented in the table above. The mean of REER, Exports, and Imports are 102.33, 27932.98, and 43380.218, respectively. Meanwhile, corresponding standard errors are 0.294 for REER, 474.10 for Exports,

and 992.727 for Imports. The standard deviations were recorded as 3.378 for REER, 5447.067 for Exports, and 11405.56 Imports. The medians are 102.97, 26993.85, and 41091, respectively.

The lowest values found for REER, Exports, and imports are 90.97, 10173.3, and 17085.8, respectively, and the highest values are 108.08, 44573.7, and 68509.8. The range in the data is the difference between these minimum and maximum values.

Skewness values are -0.92899 for REER, 0.4291 for exports, and 0.34405 for imports. Kurtosis values are 1.0048 for REER, 0.5639 for Exports, and -0.7850 for imports, all of which are less than 3, indicating that the distributions are platykurtic (i.e., flatter than the normal distribution).

Other descriptive statistics including the variance, sum, and count are also provided in the table to give a comprehensive overview of the dataset characteristics.

Correlation Matrix:

	REER	*Export (USD millions)*	*Import (USD millions)*
REER	1		
Export (USD millions)	0.363348577	1	
Import (USD millions)	0.394186034	0.871440169	1

Source: calculated and compiled by author

Analysis: In accordance to the above correlation matrix, because the correlation coefficient values are 0.3633 and 0.3941, respectively, we discovered that there is a weak positive link between the REER and imports as well as between the REER and exports. In general, if REER increases (it means domestic currency becomes stronger), export should fall. So, a positive correlation like 0.3633 is somewhat unexpected. It could imply that additional factors like global demand, export subsidies, or product quality are offsetting the negative impact of REER appreciation.

Estimation of Regression Equation – 1

Dependent Variable: Export
Method: Least Square
Sample: Jan 2014-Dec 2024

Regression Statistics	
Multiple R	0.332487872
R Square	0.110548185
Adjusted R Square	0.103706248
Standard Error	0.18943918
Observations	132

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.579845319	0.57984532	16.15743974	0.0000981687
Residual	130	4.665336386	0.0358872		
Total	131	5.245181705			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	1.046266053	2.281871003	0.45851236	0.647349989	-3.468142826	5.560674933
ln REER	1.981979638	0.493074923	4.01963179	0.000098168	1.006489871	2.957469405

Source: calculated and compiled by author

Analysis: The coefficient of determination (R^2) is 0.11, this means 11% of the variation in export is elucidated by REER. Multiple R is 0.3324, indicating a weak positive relationship between REER and export. The overall quantity of observation is 132 in the analysis. Significance F is the p-value for the F-test, which tests the overall significance of the regression model. The value of significance F is 0.00009816, indicates the model has statistical significance as the p-value is <0.05. The value of intercept is 1.046266053, t Stat for REER is -4.01963179. P-value for REER is 0.00009816 indicates the coefficient is statistically significant. Lower and Upper 95% show the confidence interval for the coefficient.

Estimation of Regression Equation – 2

Dependent Variable: Import
Method: Least Square
Sample: Jan 2014-Dec 2024

Regression Statistics	
Multiple R	0.371612885
R Square	0.138096136
Adjusted R Square	0.131466106
Standard Error	0.250235406
Observations	132

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	1.304258177	1.30425818	20.8288864	0.00001149
Residual	130	8.14030858	0.06261776		
Total	131	9.444566757			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-3.113219986	3.014185956	-1.032856	0.30358895	-9.07642642	2.84998645
ln REER	2.972520748	0.651316182	4.56386749	0.00001149	1.68396957	4.26107192

Source: calculated and compiled by author

Analysis: The coefficient of determination (R^2) is 0.138, this means 13% of the variation in import is elucidated by REER. Multiple R is 0.3716, indicating a weak to moderate positive relationship between REER and import. The overall quantity of observation is 132 in the analysis. Significance F is the p-value for the F-test, which tests the overall significance of the regression

model. The value of significance F is 0.00001149, indicates the model has statistical significance as the p-value is <0.05. The value of intercept is -3.113219986, t Stat for REER is 4.56386749. P-value for REER is 0.00001149 indicates the coefficient is statistically significant. Lower and Upper 95% show the confidence interval for the coefficient.

Conclusion

In this research, we have empirically investigated the impact of instability in exchange rate on export and import in India. We have collected data on REER, Export and Import from the RBI Database on Indian Economy. REER is selected because it gives better, inflation adjusted and multi-country view of a country's currency competitiveness and its impact on trade. REER, export and import are transformed in log form because it improves model accuracy, allows for elasticity interpretation and helps in meet regression assumption. We have used standard deviation of exchange rate returns over a specific time period to calculate the instability or volatility in exchange rate. For this research, I used data from January 2014 to December 2024. I examined how the instability in the exchange rate impacts both exports and imports using regression analysis and constructed a correlation matrix. From the analysis, it was observed that exports and REER were weakly but positively correlated. In theory, an increase in REER (which dominates currency appreciation) should result in decreased exports.

It might suggest world demand, imperial export subsidies, or outstanding product quality nullifies the negative consequences from appreciation of REER. There is weak to moderate association between Import and REER. From the regression analysis, it could be concluded that there is weak positive correlation between REER and exports, and weak to moderate correlation between REER and imports for the case of India.

For this research, I used data from January 2014 to December 2024. Other researchers may use quarterly, half yearly and yearly data in the future research which would yield more thorough findings. This study identifies the COVID-19 pandemics, Russia- Ukrain war (2022) and other geopolitical uncertainties as key events amplified instability during the period. Strengthen currency risk management, promote export diversification, enhance forex reserves, stabilize macroeconomic factors and use hedging tools to reduce exchange rate instability's impact on trade.

References

- Arize, A.C. (2006) "The Effects of Exchange Rate Volatility on U.S. Imports: An Empirical Investigation" *International Economic Journal 12,* 3, 31-40.
- Asteriou, D., Masatci, K. & Pilbeam, K. (2016) "Exchange Rate Volatility and International Trade: International Evidence from the MINT Countries" *City, University of London Repository 58,* 133-140.
- Bosupeng, M., Naranpanawa, A., & Su, J. J. (2024) "Does exchange rate volatility affect the impact of appreciation and depreciation on the trade balance? A nonlinear bivariate approach" *Economic Modelling*, *130*, 106592.
- Dada, J. T. (2021) "Asymmetric effect of exchange rate volatility on trade in sub-Saharan African countries" *Journal of Economic and Administrative Sciences*, *37*(2), 149-162.
- Ekanayake, E. M., & Dissanayake, A. (2022) "Effects of real exchange rate volatility on trade: empirical analysis of the United States exports to BRICS" *Journal of Risk and Financial Management*, *15*(2), 73.

- George, O. (2024). "Exchange rate volatility and its effects on Uganda's trade balance (1980–2020)". *SN Business & Economics*, *4*(5), 54.
- Iqbal, J., Jabeen, S., Nosheen, M., & Wohar, M. (2024) "The asymmetric effects of exchange rate volatility on Pakistan–Japan commodity trade: Evidence from non-linear ARDL approach" *Asia-Pacific Financial Markets*, *31*(3), 657-732.
- Kayani, U. N., Aysan, A. F., Gul, A., Haider, S. A., & Ahmad, S. (2023) "Unpacking the asymmetric impact of exchange rate volatility on trade flows: A study of selected developed and developing Asian economies" *Plos one*, *18*(10).
- Lal, M., Kumar, S., Pandey, D. K., Rai, V. K., & Lim, W. M. (2023) "Exchange rate volatility and international trade" *Journal of Business Research*, *167*, 114156.
- Panda, S. and Mohanty, R.K. (2015) "Effects of Exchange Rate Volatility on Exports: Evidence from India" *Economic Bulletin 35,* 305-312.
- Rahman, M.H., Majumder, S.C. & Hossain, M.N. (2020) "The Impact of Exchange Rate Volatility on Export and Import in Bangladesh" *European Online Journal and Social Sciences 9*, 411-424.
- Tarasenko, I. (2021) "The impact of exchange rate volatility on trade: The evidence from Russia" *Russian Journal of Economics*, *7*(3), 213-232.
- Yussif, A. R. B., Onifade, S. T., Ay, A., Canitez, M., & Bekun, F. V. (2024) "Modeling the volatility of exchange rate and international trade in Ghana: empirical evidence from GARCH and EGARCH" *Journal of Economic and Administrative Sciences*, *40*(2), 308-324.

Assessing the Quality of Public Expenditure in Uttar Pradesh (1991-92 to 2019-20)

Vijay Kumar Pal[1]

ABSTRACT

The Quality of public expenditure is the most crucial mean to ensure sustainable economic growth. This analysis evaluates the quality of public expenditure in the Indian state of Uttar Pradesh from 1991-92 to 2019-20. Drawing on a framework developed in recent research work on public expenditure efficiency, five key fiscal indicators are analysed viz., capital outlay to GSDP ratio, revenue expenditure to capital outlay ratio, developmental expenditure to GSDP ratio, developmental expenditure as a proportion of total expenditure, and interest payment to total expenditure ratio. RBI eSTATE Database and state audit reports by CAG are used to carry out the time-series analysis. The results reveal serious structural adjustments in the state's expenditure composition following the enactment of UPFRBM Act in 2004. Notably, there has been increased emphasis on capital outlay and developmental spending, with a concomitant decline in the interest payment burden, although some indicators still reflect persisting challenges. The policy implications of trends, highlighting the need for a balanced expenditure policy focusing on growth-promoting investment with fiscal prudence.

Keywords: *Public Expenditure Quality; Capital Outlay; Revenue Expenditure; Fiscal Responsibility; Subnational Finance; Fiscal Sustainability; State Finance*

Introduction

Quality of public expenditure finds its origin in the "Golden Rule" of Reserve Bank of India. The rule is embedded in the philosophy of fiscal prudence which stipulates that all the borrowings of the state should be utilized for capital expenditure, that is, on the capital outlay intended to increase the productive capacity of the national or sub-national economy. The rule indirectly suggests that the revenue expenditure should be financed from the revenue receipts and should result into nil revenue deficit. Fiscal Responsibility Legislations (FRLs) provide a legal form to "Golden Rule" by asking the national and sub-national governments to enact respective fiscal legislation with the goals of bringing down the Fiscal Deficit to 3% of S(GDP) with zero contribution from the Revenue Deficit in Fiscal Deficit. That is, Fiscal Deficit up to 3% of S(GDP) should be from the capital outlay only. It will improve the quality of the public expenditure. In this regard, Uttar Pradesh had enacted its FRL in 2004 by enacting the Uttar Pradesh Fiscal Responsibility and Management

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(UPFRBM) Act in the state legislature. This was the beginning of rule based fiscal policy making in Uttar Pradesh. The findings offer useful lessons in order to improve public spending quality in Uttar Pradesh and comparable sub-national jurisdictions.

Methodology

This research evaluates the quality of Uttar Pradesh public expenditures employing the analytical framework of Solanki et al. (2025) to quantify the composition and effectiveness of government expenditures. We concentrate on five fiscal indicators that together capture different aspects of the quality of spending:

1. **Capital Outlay to Gross State Domestic Product (COGSDP) Ratio** – Capital outlay (capital spent on assets creation) as a percentage of GSDP.
2. **Revenue Expenditure to Total Capital Outlay (RETCO) Ratio** – Revenue expenditure (operational spending in the context of investing in capital, the relationship between recurrent spending and Investment.
3. **Developmental Expenditure to GSDP (DEGSDP) Ratio** – Total developmental service expenditure (social and economic services) as a fraction of GSDP.
4. **Developmental Expenditure to Total Expenditure (DETE) Ratio** – The proportion of developmental (social + economic) expenditure in overall government expenditure.
5. **Interest Payments to Total Expenditure (IPTE) Ratio** – The proportion of interest payments (being a non-productive, fixed expense) to total expenditure.

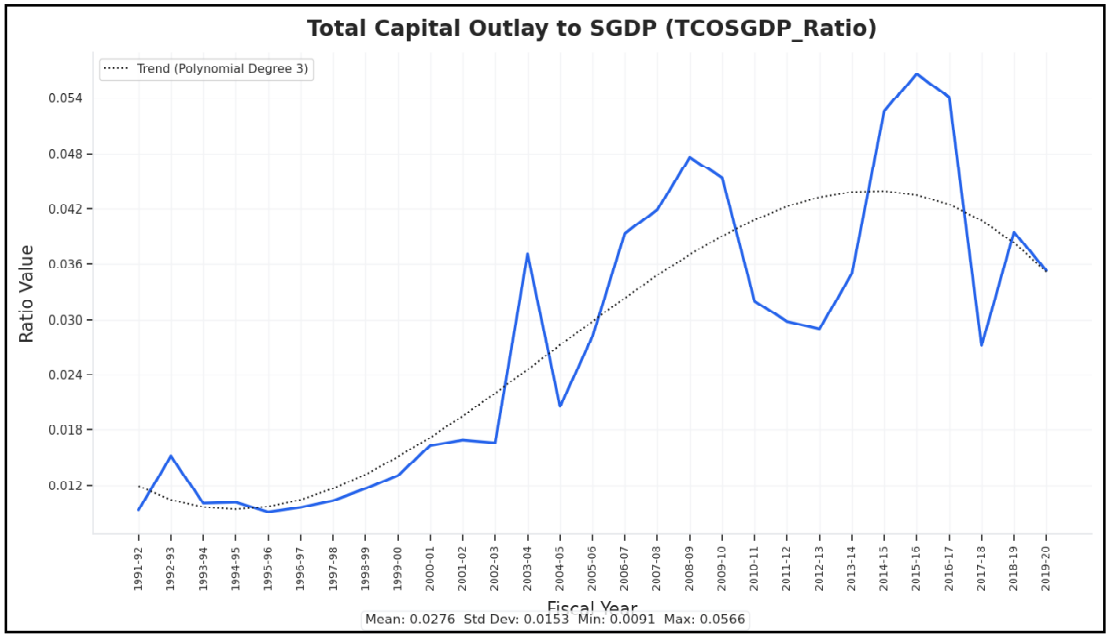
These indicators together give an estimate of the share of spending on long-term growth-enhancing projects vis-a-vis short-term or mandatory spending, and the extent to which the burden of built-up debt limits spending currently. Data for the above variables were taken from the RBI's e-STATES database and publications (RBI, 2021) and also from various Comptroller and Auditor General of India (CAG) audit reports as well as from the state's budget reports. The time-series runs from 1991–92 (India's initial fiscal year following economic liberalisation in 1991) to 2019–20. We cut off the analysis in 2019–20 to prevent distortions caused by the COVID-19 pandemic in public finances. Each indicator was calculated from the raw data with the help of standard formulae, and third-degree polynomial trend lines were fitted to each series in order to dampen short-term oscillations and emphasize long-term trends. Also, summary statistics (mean, standard deviation, minimum and maximum) are presented to put a number on the central tendency and spread of each series. This methodological strategy allows one to carry out a systematic longitudinal analysis of expenditure quality in Uttar Pradesh.

Results

Ratio of Capital Expenditure to GSDP (COGSDP)

Capital spending is the share of spending allocated to the building of infrastructure and long-term assets, which in turn raises the productive capacity of the economy. A higher COGSDP ratio is generally held to be the inclination towards higher capital spending is positive in the sense that it

represents a higher commitment towards developmental schemes that can drive economic growth and mitigate recession through crowding-in of private investment. The policy also assists in diluting regional imbalances; by injecting more financial resources to less developed regions, it can encourage private sector involvement and induce balanced development. The expectation was that Uttar Pradesh's adherence to fiscal discipline would induce this ratio by assigning priority to capital spending financed through allowed borrowing.



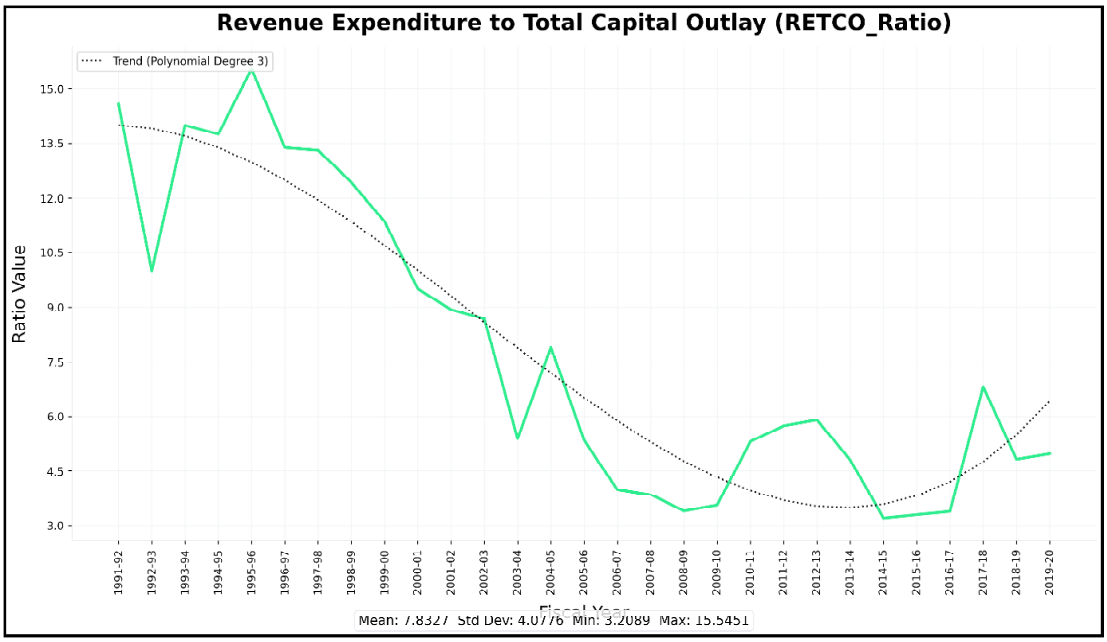
Source: RBI eSTATE Database

Uttar Pradesh's COGSDP ratio began at a small value of approximately 0.012 in 1991–92, then saw a rapid jump in 1992–93, when it saw its early peak as the state increased its capital spending in the early years of economic reform. This was followed by stabilising, followed by a small decline; from 1993–94 through to the late 1990s, the ratio remained stable at relatively low values (around 0.01–0.02), reflecting limited growth in capital spending as a percentage of GSDP. A recognisable upward trend began around 1999–2000, reaching a peak of nearly 0.038 by 2003–04 during a period of increased public spending. Following the high year of 2003–04, the series was volatile, with alternate rises and falls. There was a steep low around 2012–13, reflecting a period of contraction. The ratio then rose to its highest ever value of approximately 0.0566 during 2015–16, reflecting a strong rise in capital spending for the year. Following this peak, there was a steep fall, with the ratio falling in 2017–18 and 2018–19, before stabilising marginally in 2019–20 to a level just above 0.03.

Revenue Expenditure to Total Capital Outlay (RETCO) Ratio

The RETCO ratio is a ratio to express the proportion of revenue expenditure- salaries, pensions, subsidies, maintenance, and other running expenses- incurred for each rupee that goes towards capital investment. It provides highly useful information about the priorities of government

expenditure: an increased RETCO signifies a dominance of revenue (or consumption) expenditure, and a low RETCO signifies a greater focus on capital expenditure. A falling RETCO ratio is generally to be interpreted as an indicator of better quality of expenditure, meaning a shift towards creation of long-term assets and gearing future growth at the expense of short-term operating costs; however, it is to be remembered that abnormally small figures can also reflect inadequate provisioning for maintenance or services. Ideally, the fiscal reforms and expenditure management procedures adopted by Uttar Pradesh over the years should appear in the form of a decline in the RETCO ratio, suggesting more balanced and investment-led budgeting.



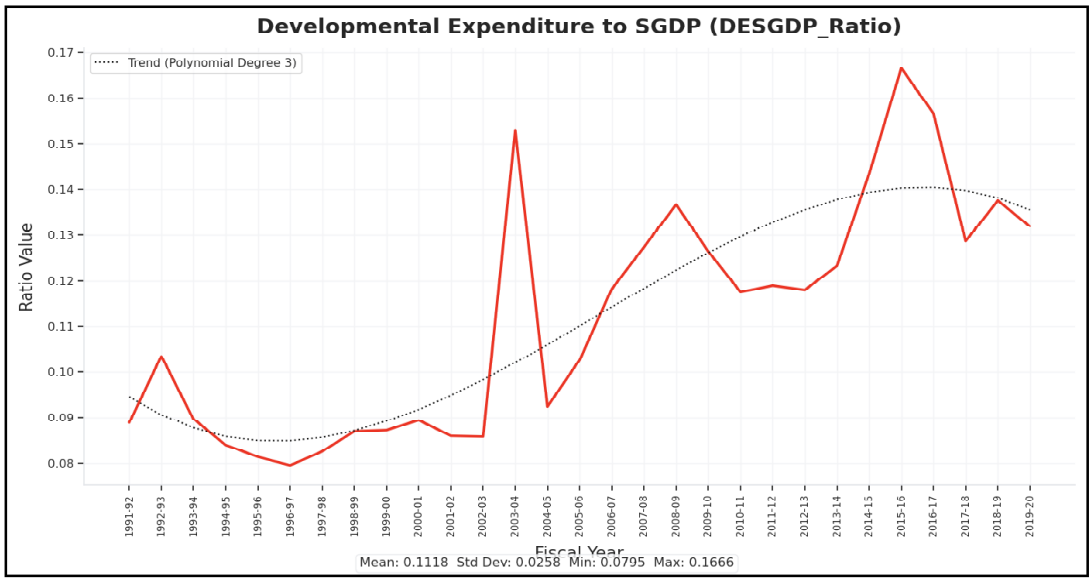
Source: RBI eSTATE Database

A consistent downward slope in the RETCO ratio started from the late 1990s and gained pace in the early 2000s. Since 1999–2000, one can see a precipitous fall: by 2005–06 the ratio dropped to a level of about 4.0. This is a period overlapping with institutional reforms and changes (e.g., the UPFRBM Act 2004 and enhanced central transfers to capital schemes) that benefited capital expenditure and imposed fiscal discipline on revenue expenditure. The precipitous fall in RETCO between 2000–01 and 2005–06 is a genuine reorientation of the state's fiscal system towards more capital generation. In the latter half of the 2000s, between 2006–07 and 2011–12, the RETCO ratio stabilized at a much lower level, fluctuating between a level of about 3.5 to 5.0. This relative stability at all-time low levels reflects a new normality where the proportion of revenue expenditure had been drastically reduced compared to the 1990s. After 2011–12, there is a muted trend of rise. The RETCO ratio increased to a local peak of about 6.0 by the period 2017–18, then modestly fell back towards the end of the period. Such a minor blip in the late 2010s may be an indication Rising pressures on revenue spending, including rising salary or pension costs, have been been noted alongside a slowdown in the high growth of capital spending. However, the RETCO values of the

subsequent period are much lower compared to the early 1990s, establishing a continued increase in the quality of fiscal spending. The polynomial trend line serves the purpose of graphically depicting the initial high plateau followed by a sharp drop, finally settling in the low single digits during the 2010s. The statistical summary highlights the magnitude of the changeover: the 1991-2020 average RETCO is 7.83, the standard deviation being 4.08, recording high volatility. The highest value recorded at 15.5451 and the lowest value at 3.2089 confirm that Uttar Pradesh managed to bring down this ratio to about one-fifth of its earlier high value. Overall, the state has made significant strides in bringing down routine expenditures relative to capital expenditures, especially after the year 2000, and thus significantly enhancing the expenditure quality profile.

Developmental Expenditure to GSDP (DEGSDP) Ratio

Public expenditure is typically bifurcated as developmental (public spending on social and economic services) and non-developmental (public spending on general administration services, interest payments, etc.). Developmental expenditure has a direct bearing on welfare and growth – financing sectors like education, health, agriculture, infrastructure, and poverty reduction – whereas non-developmental expenditures are more of governance overhead and debt servicing. The DEGSDP ratio measures the scale of developmental expenditure relative to the state economy. A rise in the DEGSDP ratio indicates that more of the state's output is being used for developmental purposes, which can result in long-term growth and improved human development indicators. A fall in the ratio may indicate insufficient investment in fundamental development sectors, which can serve as a drag on forthcoming economic progress and social welfare.



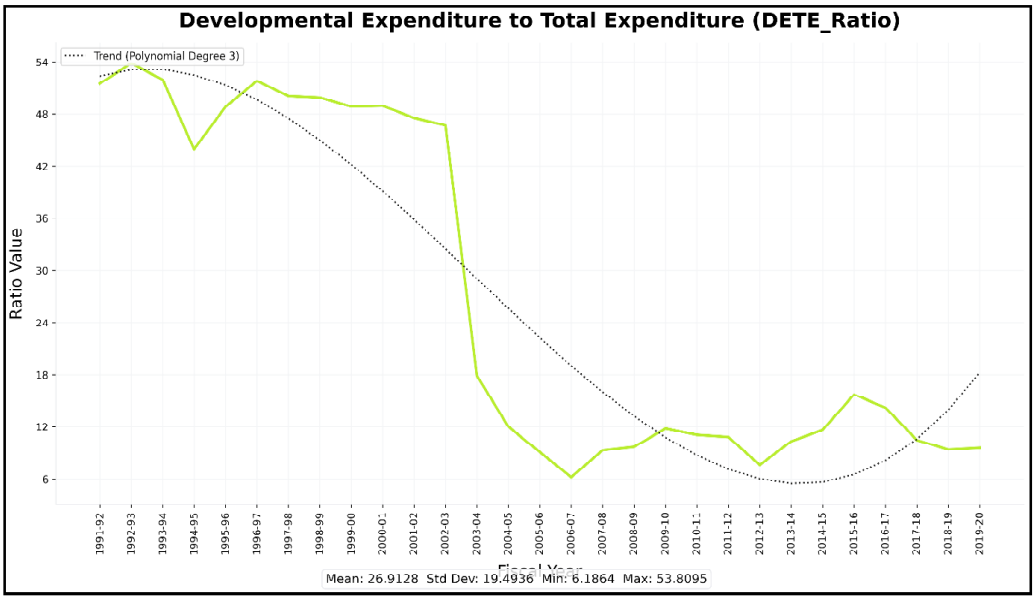
Source: RBI eSTATE Database

Having gone through the slump experienced in the late 1990s, the Developmental Expenditure to Gross State Domestic Product (DEGSDP) ratio began to improve slowly. Of particular interest is the sudden spike in developmental expenditure in the fiscal year 2002–03 with the ratio reaching

0.1666 (or 16.66% of GSDP) as a 29-year high. The dramatic rise is sure to be associated with a targeted policy action or special development project-related expenditure during the year. This was followed by a corresponding dramatic dip in 2003–04, which is indicative of fund volatility in development programs. Since the mid-2000s, the DEGSDP ratio indicates a general upward trend. For instance, it witnessed a dramatic increase during the 2010s, reaching another 29-year high of around 0.11 in 2015–16. In the recent years covered by the dataset (2017–18 to 2019–20), the ratio also hung around a range of around 0.12 to 0.13, meaning that around 12–13% of GSDP was spent on developmental expenditure as the pre-COVID period drew to a close.

Developmental Expenditure to Total Expenditure Ratio (DETE)

The DETE ratio presents the proportion of total government spending on development programs (economic and social services) versus non-development programs (interest payments and general administration). The indicator directly presents the government budget priorities: the more the DETE ratio, the higher the budget expenditure concentration with a tendency to reduce poverty and promote economic growth, and the lower the ratio, the greater the share of the budget devoted to non-development spending. It can be said that the ratio indicates to what extent the state fiscal spending is focused on achieving direct development outcomes and delivering welfare services. An increasing trend in the DETE ratio is viewed as preferable in social outcomes, and a decreasing trend can be an indication of concern for growing obligatory spending (salaries, pensions, and interest payments). crowding out development funding.



Source: RBI eSTATE Database

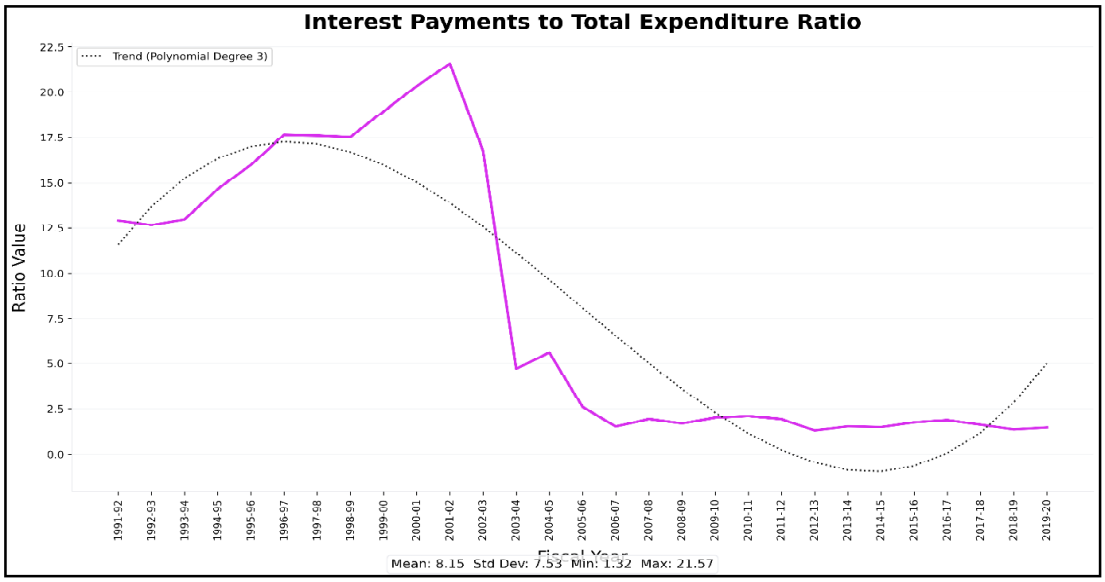
As the period began in 1991–92, the DETE ratio for Uttar Pradesh stood at approximately 53.8%, or more than half of the state's spending was being devoted to developmental services. This is a reflection of a very high developmental orientation in the early 1990s. But the ratio crashed in

the following years. In 2006–07, the DETE ratio had reached an all-time low of 6.19%, a shocking figure that suggests less than one-tenth of the spending was being channelled towards development at that time. The dramatic decline over 15 years indicates a huge transformation in the composition of spending, which was likely caused by a combination of factors: runaway expansion of non-developmental obligations (such as interest payments in the late 1990s and early 2000s and potentially increasing administrative expenditure) in conjunction with stagnation or drops in developmental spending. The mid-2000s trough informs us that developmental spending was under tight squeeze, which may have had negative consequences for public service delivery and investment at that time. Since 2006–07, the DETE ratio started to recover somewhat. Between about 2007–08 and the early 2010s, the ratio leveled off in a band roughly around 10% to 20%. This plateau is an institutional stabilization in spending habits, the precipitous decline had been halted, and a new equilibrium had been established where maybe one-sixth of spending was developmental. In the mid-2010s, there was a modest increase: the ratio increased and reached a local maximum in about 2015–16 (as also for other indicators) when developmental expenditure temporarily gained ground. Since then, there was a bit of moderation, and by 2019–20 the DETE ratio had levelled off at a level well below the early 1990s but above the mid-2000s bottom (the precise value in 2019–20 is in the teens, according to the late-period stabilization). The third-degree polynomial curve of the Development Expenditure to Total Expenditure ratio (DETE) trend line offers a smooth long-run downward drift: the sharp descent from the early 1990s to the mid-2000s, followed by steady growth in the last decade. This outcome means that, although there has been some recovery in recent times, the Uttar Pradesh expenditure mix has not yet regained the development-oriented balance of the early 1990s. This outcome would suggest that a substantial portion of Uttar Pradesh's budget continues to be gobbled up by non-developmental items, which could stifle the state's ability to deliver better socio-economic outcomes unless policy interventions are instituted to rein in wasteful expenditure.

Interest Payment to Total Expenditure (IPTE) Ratio

Interest Payments to Total Expenditure (IPTE) reflects the state's debt burden on resources: high IPTE implies more of the budget goes towards debt service, which can become a constraint on capital and developmental expenditures. Sustained increase in the IPTE is a warning sign of fiscal health and sustainability, and a declining IPTE is a sign of improvement in debt management and expansion of fiscal space for other uses.

From around 12.5% in the fiscal year 1991–92, the ratio displayed a consistent upward trend over the 1990s, implying that an increasing share of the state budget was being devoted to interest payments. This upward trend was even more severe from the mid-1990s onwards; by the fiscal year 2001–02, the IPTE ratio had increased to around 21.57%, its peak. In that particular year, more than twenty percent of every rupee the state spent went towards paying off old debts—a tremendous burden that manifested years of accumulated budget deficits and borrowing tendencies. The third-degree polynomial trend captures this increase in a smooth curve, peaking in the early 2000s. The peak of the IPTE in the early 2000s clearly shows that the debt crisis of Uttar Pradesh had become unsustainable, severely limiting fiscal space and compromising the quality of spending (since monies that could have been devoted to public services or investments were, instead, being used to service interest).



Source: RBI eSTATE Database

Following 2001–02, the IPTE ratio experienced a very steep decline. Between fiscal years 2002–03 and 2003–04 alone, the ratio declined from approximately 21.5% to approximately 5%. This extremely steep fall of approximately 16.5 percentage points in one year is unheard of and points to extensive fiscal restructuring. Reasons for this may be write-offs or debt relief (possibly as part of a financial restructuring exercise), excessive growth in GSDP coupled with fiscal correction, or extraordinary fiscal measures that reduced interest expenses substantially (such as the substitution of expensive debt with cheaper instruments or the receipt of assistance from the central government to retire expensive loans). By the fiscal year 2006–07, the IPTE ratio declined further and stabilized at approximately 2%. The drastic reduction in the burden of interest between 2002 and 2007 reflects a paradigm shift in the fiscal context of Uttar Pradesh—this transformation released a major chunk of the budget previously not available, thereby enabling enhanced expenditure in other sectors. Starting in 2007, the IPTE ratio saw an impressive period of stability. The ratio had been across a very long period of time (from 2007–08 to 2019–20) varying little, always staying between roughly 1.3% at its trough and 2.5% at its peak. This outcome means that the state managed to keep debt at reasonable levels compared to budget, and interest charges were a relatively low call on resources throughout this period.

Discussion

First, the trends above collectively give the history of Uttar Pradesh's public spending and give an insight into the effectiveness of the state's fiscal policy. There are a number of trends that stand out. Firstly, measures of fiscal quality have significantly improved since the 1990s, especially after rule-based fiscal governance came into effect in the mid-2000s. The COGSDP ratio approximately doubled from its average in the early 1990s to the mid-2010s, demonstrating the state's increased focus on capital outlays. At the same time, the RETCO ratio also declined drastically, reflecting a sharp realignment of expenditure in Favor of infrastructure and asset creation against current operating

expenditures. All these trends indicate Uttar Pradesh made concrete efforts towards adhering to the Golden Rule of public finance by reducing revenue expenditure and focusing on growth-promoting expenditure. Second, the dynamics of developmental expenditure provide a complex picture. The Developmental Expenditure to Gross State Domestic Product (DEGSDP) ratio has bounced back from a trough observed in the mid-1990s, reaching a higher level in more recent years, reflecting that Uttar Pradesh is now investing a higher share of its economic output in development areas compared to 25–30 years ago. This development is a reflection of the state's adherence to welfare and developmental achievements. Conversely, the Developmental Expenditure to Total Expenditure (DETE) ratio has witnessed a striking long-term decline. Although this ratio has stabilized and experienced modest improvement over the last decade, it continues to be much lower than the levels attained during the early 1990s. This trend suggests that non-developmental expenditures, such as administration and interest payments, continue to account for a large portion of the budget. The steep decline in DETE in the late 1990s and early 2000s is most probably attributed to an increase in interest payments and other fiscal commitments, which constrained developmental allocations. Although attempts to reverse this trend have been initiated, Uttar Pradesh has not yet succeeded in restoring the historical priority of development in its budget. From a policy perspective, this highlights a persistent challenge: the state must rein in non-developmental expenditures (such as by curbing the growth of salaries, pension liabilities, and overheads) to free up resources for education, health care, infrastructure, and other developmental priorities. This consideration is highly important in the context of Uttar Pradesh's developmental imperatives and demographic pressures.

Third, and most importantly, the burden of interest payments was sharply cut and contained well after the mid-2000s. The trend cannot be exaggerated in its significance to the quality of expenditure. By sharply cutting the IPTE ratio, Uttar Pradesh enhanced its fiscal sustainability and generated additional fiscal space. The post-2005–06 period, where interest accounted for merely 1–2% of expenditure, is a qualitatively different period compared to the early 2000s when interest accounted for more than 20% of the budget. This is a feat that is likely the result of debt restructuring and compliance with fiscal deficit targets under the FRBM regime, which lowered the stock of expensive debt. The policy implication is clear: it is essential to maintain debt discipline. Any slippage into high deficits would quickly raise the interest burden, crowding out development and capital expenditure once again. The modest upward thrust in the IPTE trend in recent years must be closely watched; it could be a sign of increasing debt servicing charges that must be contained either through fiscal correction or pre-emptive debt management.

It is also helpful to compare the Uttar Pradesh path of expenditure quality to more aggregate trends. More recent work on public expenditure quality in India has found a positive correlation between high expenditure quality—more capital and developmental, less interest burden—and better economic performance and social outcomes. For instance, Solanki et al. (2025) construct a composite index to measure expenditure quality across Indian states and demonstrate that those states with better quality scores have more positive human development indices and higher growth rates in the economy. The Uttar Pradesh path to some degree confirms this observation: the improved expenditure quality increases following 2005 coincided with a phase of faster GSDP growth and some improvement in social indicators in the state. It should, however, be noted that Uttar Pradesh had a relatively low starting point, and while the recent trends are encouraging, it is still lagging behind in the majority of socio-economic indicators. This serves to underscore the imperative for policy intervention to continue to enhance expenditure quality. With more capital investment in large infrastructure, more developmental spending in the areas of health, education, and social protection, and strict monitoring of debt and discretionary

spending, Uttar Pradesh can help generate more persistent economic growth and further improve on welfare outcomes.

Lastly, the analysis period to 2019–20 avoids the fiscal distortions of the COVID-19 pandemic deliberately. Significantly, the pandemic would have had a detrimental effect on most of these indicators (with revenue expenditure peaking for health and relief, capital expenditure reduced temporarily, and deficits increased, which would increase interest burdens). As the state recovers from the pandemic shock, the results of this study become more relevant. They offer a snapshot of Uttar Pradesh's fiscal position on the eve of COVID-19, and a reminder of the hard-won improvement in expenditure quality over three decades. Policymakers will do well to strive to maintain these gains in post-pandemic fiscal policy. This could entail reimposing fiscal discipline after the crisis, re-prioritizing capital and development spending, and avoiding excessive debt stockpiling. Overall, Uttar Pradesh's experience shows both the feasibility and payoff to enhancing public expenditure quality – improved fiscal management has created room for development – and the need for ongoing caution and reform to ensure that this is passed on to continued economic and social development for the state's citizens.

Conclusion

This analysis of Uttar Pradesh's public expenditure trends between 1991-92 and 2019-20 shows both significant strides as well as the continuing challenges in the improvement of fiscal quality. On the encouraging side, there has been a significant shift in the direction of the state's expenditure towards capital and developmental expenditure, especially from the mid-2000s. The adoption of fiscal responsibility legislations combined with prudent debt management practices has assisted in cutting unproductive expenditure in terms of interest expenditures and thus helped in greater investment in public services and infrastructure. These trends are indicative of encouraging strides towards a more growth-supportive and sustainable fiscal path for Uttar Pradesh. On the negative side, the state is confronted with the reality that a significant portion of its budget still goes to non-developmental expenditure, while some of the recent gains, such as a low revenue-to-capital expenditure ratio and a high proportion of developmental spending, need to be sustained and upgraded. The trends witnessed - increases in capital expenditure, a decline in the interest burden, and a partial recovery in the proportion of developmental expenditure - reflect a fiscal environment that is on the mend but still not satisfactory. The period under review shows that policy intervention and fiscal discipline can, in fact, lead the state to better expenditure quality, but this requires sustained commitment and political will. Regular monitoring, open fiscal disclosure, and evidence-based revisions in budgetary allocations will be the key. By such means, Uttar Pradesh can lock in the gains achieved so far, further enhance the quality of its public spending, and, thereby, induce rapid economic growth and improved developmental outcomes for its citizens.

References

- Comptroller and Auditor General of India. (2017). Report on state finances of the Government of Uttar Pradesh for the year ended 31 March 2016 (Report No. 1 of 2017). New Delhi: CAG.
- Reserve Bank of India. (2021). State finances: A study of budgets of 2020-21. Mumbai: Reserve Bank of India.
- Reserve Bank of India. (2025). State finances: A study of budgets of 2023-24. Mumbai: Reserve Bank of India.
- Solanki, R., Yadav, K. A., Khandelwal, A., Behera, S. R., & Mukherjee, A. (2025). Quality of public expenditure and its socio-economic impact in India. Reserve Bank of India Bulletin, February 2025.

Assessing the Role of UPI Transactions on India's Digital Lending

Amrita Singh[1] & Dr. Vivek Singh[2]

ABSTRACT

The Unified Payments Interface (UPI) has become a pivotal development in India's digital transformation journey, fundamentally altering the way financial transactions occur and driving growth within the digital economy. Since its introduction in 2016, UPI has experienced remarkable growth, with transactions increasing from 91.52 crore in FY 2017-18 to 13,116 crore in FY 2023-24, demonstrating an impressive compound annual growth rate (CAGR) of 129%. This extraordinary advancement establishes UPI as the foundation of India's digital payments system, responsible for about 70% of all digital payment transactions. Its influence extends well beyond merely facilitating payments. UPI is greatly affecting the development and growth of the digital lending landscape. This paper examines the multifaceted role UPI plays in promoting digital lending in India. UPI has created a seamless, real-time solution for fund distribution and repayment. By enabling effective credit evaluation through transactional information and digital footprints, UPI allows fintech firms and non-banking financial companies (NBFCs) to provide customized lending products with lower operational expenses and quicker processing times. Additionally, UPI's dual framework, consisting of Person-to-Person (P2P) and Person-to-Merchant (P2M) transactions, promotes extensive data generation, thereby improving credit scoring models and risk evaluation processes.

This study also underscores the importance of UPI in promoting financial inclusion, especially in rural and semi-urban regions of India. With UPI-ATMs and the growth of mobile banking infrastructure, a larger portion of the population is being brought into the formal credit system. In summary, UPI is not just a digital payment method; it serves as a transformative facilitator of digital credit, economic empowerment, and inclusive growth.

Keywords: *UPI, Digital Lending, Financial Inclusion, Fintech, Credit Access.*

INTRODUCTION

India's digital transformation has significantly altered the financial services sector, especially in how people access, transfer, and borrow funds. Among the numerous advancements propelling this change, the Unified Payments Interface (UPI) is particularly noteworthy. Introduced in 2016 by the National Payments Corporation of India (NPCI), UPI has become the essential framework of

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the nation's digital payment system. Its capability to enable real-time transactions around the clock through user-friendly mobile applications has integrated millions into the realm of digital finance. By 2023, UPI handles over 1,300 crore transactions every month, accounting for more than 70% of all digital payment activity in India. Alongside this expansion, India has experienced a rise in digital lending, fueled by increased smartphone usage, data accessibility, and changing consumer habits. Fintech firms and non-banking financial companies (NBFCs) have adopted UPI as an essential instrument for distributing loans, processing repayments, and evaluating credit, forging a mutually beneficial connection between payments and lending. The accessibility of transaction data through UPI enables lenders to make better-informed credit evaluations, streamlining processing times and reducing operational expenses.

This study intends to investigate the relationship between UPI and digital lending, focusing on how the increase in UPI transactions has stimulated the growth of digital credit within India. It reviews essential statistics from 2017 to 2023, identifies trends, and evaluates UPI's contribution to enhanced financial inclusion, particularly in rural and semi-urban areas. This research aims to address that gap by merging transaction data analysis with insights from policy, providing a comprehensive understanding of UPI's effect on the evolving credit landscape in India.

REVIEW OF RELATED LITERATURE

Asamani and Majumdar (2024) explore the main factors that affect consumer adoption of digital lending platforms in India. Utilizing an extended Technology Acceptance Model (TAM) and structural equation modeling (SEM), the research highlights trust, perceived usefulness, ease of use, and service quality as essential factors influencing the intention to adopt. The study revealed that trust is the most significant factor, followed by service quality and perceived risk. These results inform the design and marketing approaches for digital lending services. The research underscores the importance of improving digital infrastructure and fostering trust to promote greater financial inclusion.[1]

Aniket Swaraj and Fleur Fernandes (2023) investigate how digitalization, especially in areas like e-commerce, electronic payments, and financial technology (fintech), is transforming sustainable development across different sectors in India. It features in-depth case studies on platforms such as BharatPe, Groww, Zomato, Razorpay, and BigBasket, demonstrating how digital advancements promote financial inclusion, enhance customer engagement, and foster business sustainability. The study critically assesses the challenges and opportunities encountered by small retailers, MSMEs, and fintech companies in implementing digital solutions. Important themes include the significance of UPI, online consumer behavior, security issues, and the economic effects of digital transformation. Through primary research and SWOT analyses, the book offers valuable perspectives for policymakers, entrepreneurs, and academics focused on the relationship between technology and sustainable development.[2]

Prasanna Dasari (2024) critically explores the negative aspects of India's digital lending landscape, emphasizing how unregulated platforms have resulted in borrower harassment, exorbitant interest rates, and exploitation by third-party settlement services. Based on personal experiences and qualitative research, the study reveals coercive debt collection practices, breaches of privacy, and fundamental failures in regulation. It highlights the emotional and financial impact on borrowers

and uncovers gaps within current RBI regulations and data protection laws. The research concludes with robust policy suggestions aimed at safeguarding borrowers, reforming regulations, and enhancing financial literacy to foster a more secure digital lending environment in India.[3]

Shashwat Alok, Pulak Ghosh, Nirupama Kulkarni, and Manju Puri (2024) examine how India's Unified Payments Interface (UPI), as part of its Open Banking and Digital Public Infrastructure, has markedly enhanced access to credit, particularly for borrowers with low credit scores and those new to credit. Through the analysis of extensive loan data and empirical techniques, it is demonstrated that UPI-facilitated digital footprints enable fintech companies and banks to extend more credit without increasing default risks. Fintech companies experienced especially significant credit growth, particularly in regions with high UPI usage. The research emphasizes UPI's contribution to reducing entry barriers and improving financial inclusion by providing verifiable digital transaction records.[4]

Adwait Jain (2024) examines the swift growth of India's digital lending landscape and its effects on conventional banking. It showcases how fintech companies and non-banking financial companies (NBFCs) have enhanced access to credit through technology-enabled solutions, particularly for marginalized groups. The discussion includes the emergence of peer-to-peer lending, the increase in personal loan demand, and the changing functions of digital innovations such as UPI and India Stack. The research also underlines the regulatory hurdles, cybersecurity issues, and the necessity for transparency and protection for borrowers. Jain concludes that digital lending will play an increasingly pivotal role in shaping the credit environment in India, forecasting it to evolve into a $1.3 trillion market by 2030.[5]

Dr. Ashish Kumar Srivastava (2021) critically analyses the troubling aspects of digital lending in India, focusing on the predatory behaviours of unregulated lending applications. It explores how technology has facilitated easy access to loans while simultaneously putting borrowers, particularly those from low-income backgrounds, at risk of unethical recovery methods, exorbitant interest rates, and violations of privacy. The study emphasizes the existing legal shortcomings, the psychological impacts such as social stigma, and the urgent need for more stringent regulations. It calls on the RBI and policymakers to safeguard borrowers without hindering financial innovation.[6]

Pushpa B V, Sathyanarayana S S, and Dr. Hema Harsha (2024) investigate the transformative impact of the Unified Lending Interface (ULI) in facilitating credit provision and improving financial access in India. Launched by the RBI, ULI serves as a centralized digital framework that integrates with UPI, Aadhaar, and Jan Dhan accounts to enhance the efficiency of loan disbursement, shorten processing times, and assist underserved groups like MSMEs and the agricultural sector. This research draws parallels with international fintech frameworks, underscoring the significance of interoperability, standardized APIs, and the security of data. It assesses ULI's capability to lessen credit obstacles while recognizing the implementation challenges and scalability as crucial factors for achieving enduring success.[7]

P. Baba Gnanakumar and M. K. Baby (2025) present a data-driven approach to improve credit accessibility via the Unified Payments Interface (UPI) by incorporating advanced analytics and behavioral profiling. Utilizing ROC and discriminant analysis on responses from 910 UPI credit

users, the research identifies key factors that affect frequent usage and creditworthiness. The findings underscore the significance of repayment flexibility, management of credit balances, and trust. Additionally, the research identifies income as a crucial predictor of credit scores, advocating for income-centered credit models. Their suggested framework aims to refine lending decisions while fostering financial inclusion through UPI-based credit options.[8]

RESEARCH GAP

A significant amount of research has been conducted on the expansion of digital payments and the rise of fintech in India, yet there has been limited in-depth analysis of the relationship between UPI (Unified Payments Interface) and the digital lending ecosystem. Most of the existing literature either investigates the factors influencing the adoption of digital lending platforms or the technological benefits of UPI in enabling real-time transactions. However, these two areas are often examined separately, missing the chance to understand how UPI's framework directly affects lending practices, borrower identification, and credit distribution methods. In addition, while the contribution of fintechs and NBFCs to advancing financial inclusion is recognized, there is a lack of empirical research quantifying how UPI-generated data and transaction histories are utilized for assessing credit risk and improving operational efficiency in lending. This study aims to fill these significant gaps by analyzing data trends from 2017 to 2023 and investigating UPI's role in improving accessibility, transparency, and scalability in digital lending, especially for underserved and new-to-credit populations.

SIGNIFICANCE OF THE STUDY

This research is of great importance in light of India's swiftly changing digital financial landscape. As the Unified Payments Interface (UPI) continues to lead the digital transactions sector, representing over 70% of all digital payments, policymakers, financial institutions, and fintech companies must grasp how UPI has sparked the expansion of digital lending to craft inclusive, safe, and effective credit systems. By examining data from 2017 to 2023 and looking into the relationship between UPI transaction volumes and the growth of digital lending, this study offers concrete proof of UPI's pivotal role in broadening access to credit. Additionally, it highlights how UPI-enabled transaction data is leveraged for immediate credit evaluations and risk assessments. This research also addresses a significant gap in the current literature by investigating the operational, financial, and social consequences of incorporating UPI into the digital lending framework.

OBJECTIVES OF THE STUDY

1. To assess the growth trend of UPI transactions in India from 2017 to 2023.
2. To examine the impact of UPI transactions on India's digital lending.

RESEARCH QUESTIONS

1. What is the growth trend of UPI transactions in India from 2017 to 2023?
2. How do the UPI transactions impact India's digital lending?

METHODOLOGY

This research employs a descriptive and analytical framework, utilizing secondary data to explore the influence of the Unified Payments Interface (UPI) on the digital lending landscape in India. The dataset covers the period from 2017 to 2023 and comprises annual statistics regarding UPI transactions (measured in crores) and the overall value of digital lending in India (also in crores), gathered from credible sources such as the Department of Financial Services, India Brand Equity Foundation, and scholarly articles. To investigate the connection between UPI adoption and the expansion of digital lending, the study utilizes trend analysis and year-over-year (YoY) growth comparisons. The primary analysis tools include Microsoft Excel, which was used to create visual representations. A scatter plot was generated to assess the strength of the relationship between UPI usage and digital lending. This methodological strategy facilitates a clear visual representation of trends and bolsters the study's aim of identifying UPI's role as a driving force behind the growth of digital credit in India.

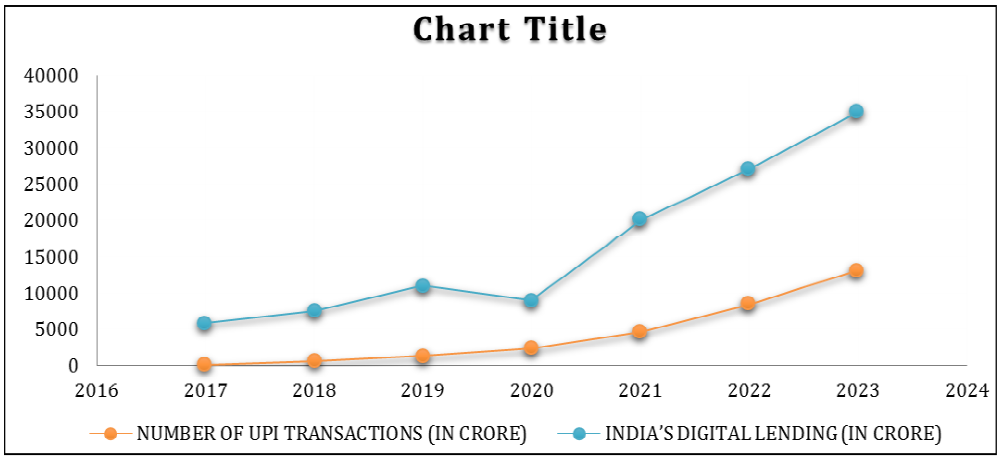
DATA ANALYSIS AND INTERPRETATION

Table 1: Number of UPI transactions and India's Digital Lending data from 2017 to 2023

YEAR	NUMBER OF UPI TRANSACTIONS (IN CRORE)	INDIA'S DIGITAL LENDING (IN CRORE)
2017	91.52	5800
2018	535.34	7500
2019	1251.86	11000
2020	2233.07	9000
2021	4596.76	20000
2022	8375.10	27000
2023	13116.47	35000

Source: Department of Financial Services, India Brand Equity Foundation

Figure 1: Role of UPI transactions in India's Digital lending



Source: Department of Financial Services, India Brand Equity Foundation

Data indicates a strong correlation between the growth of UPI and the increase in digital lending. The volume of UPI transactions rose from 91.52 crore in FY18 to over 13,000 crores in FY24, mirroring the expansion of the digital lending sector from US$ 270 billion in 2022 to an estimated US$ 720 billion by 2030. With Android-based mobile lending apps commanding 82% of the market, this emphasizes the interconnectedness of UPI and lending services. The growth in rural tele-density, recorded at 59.19% in 2024, alongside mobile banking efforts, has enhanced financial accessibility, particularly with UPI-ATMs and awareness initiatives reaching underserved locales. An examination of UPI transaction data and the digital lending sector in India from 2017 to 2023 reveals a closely linked and mutually beneficial growth trajectory. UPI transactions surged from 91.52 crore in 2017 to 13,116.47 crore in 2023, reflecting an approximate CAGR of 129%. Meanwhile, digital lending experienced an increase from ₹ 5,800 crore in 2017 to ₹ 35,000 crore by 2023, exhibiting a CAGR exceeding 39%. UPI experienced remarkable growth in its formative years, registering a 485% rise in 2018 and a 134% increase in 2019. The growth rate remained above 50% in subsequent years. Digital lending saw variability, including a decrease in 2020 (-18%), likely attributable to uncertainties related to the pandemic, followed by a robust recovery of 122% in 2021. Both UPI and digital lending show steep upward trends, particularly post-2020, highlighting a digital acceleration following the pandemic. The growth of UPI peaked early and then began to stabilize, while digital lending growth displayed more volatility but showed an overall upward trajectory.

The increase in UPI adoption has established a technological and behavioral foundation, fostering consumer confidence in using digital platforms for financial activities, including borrowing. UPI's capacity for real-time, cost-effective transactions has facilitated quicker disbursement and repayment cycles, enhancing lender trust. The decline in lending during 2020 contrasts with the persistent growth of UPI, indicating that UPI serves a broader purpose beyond credit, including peer transfers and merchant payments. This analysis reinforces the argument that UPI functions not only as a payment facilitator but also as a crucial enabler of the digital credit framework. It affirms UPI's transformative influence on India's fintech ecosystem and provides a solid empirical basis for the research paper.

CONCLUSION

The swift development of India's financial landscape has been profoundly impacted by the Unified Payments Interface (UPI), which has transformed into an essential infrastructure for promoting digital lending rather than merely a digital payment mechanism. This research indicates that between 2017 and 2023, the dramatic increase in UPI transactions has paralleled the significant expansion of the digital lending sector, highlighting a strong connection between the digitization of payments and the accessibility of credit. UPI has not only streamlined peer-to-peer and merchant transactions but has also facilitated instant loan disbursements, efficient repayment processes, and more precise credit evaluations through digital footprints. Additionally, government initiatives along with technological advancements such as the Unified Lending Interface (ULI) are strengthening UPI's role as a crucial facilitator of financial inclusion. Although this study is constrained by its dependence on secondary data and broad-level indicators, the results distinctly demonstrate UPI's pivotal influence in making credit more accessible and cultivating a more inclusive digital economy.

LIMITATIONS

Although this research offers important perspectives on the connection between UPI expansion and the growth of digital lending in India, it comes with certain limitations. To begin with, the evaluation relies mainly on secondary data sourced from government publications, industry reports, and collective transaction figures, which may overlook individual behavioral insights or regional differences. Furthermore, the study focuses on a period concluding in 2023 and thus fails to consider the latest developments or regulatory changes that have occurred since then, including advancements in security measures or AI-integrated lending solutions. Moreover, the absence of detailed information regarding individual borrower experiences, default rates, and lender-specific approaches restricts the thoroughness of the impact assessment across different user groups.

FUTURE SCOPE OF THE STUDY

Future studies can expand on this research by utilizing primary data obtained from surveys or interviews with borrowers, executives in fintech, and regulators to achieve deeper, immediate understanding. Additionally, investigations can delve into the impact of new technologies such as the Unified Lending Interface (ULI), account aggregators, and AI-driven credit scoring methods in reshaping digital lending. Furthermore, comparative analyses among developing nations implementing similar digital payment frameworks could provide worldwide viewpoints on the success of UPI-like systems. There is also the opportunity to evaluate the lasting socio-economic effects of digital credit on low-income and rural communities in India.

REFERENCES

- Asamani, A., & Majumdar, J. (2024). An empirical study of digital lending in India and the variables associated with its adoption. BAR - Brazilian Administration Review, 21(3), e230132. https://doi.org/10.1590/1807-7692bar2024230132
- Swaraj, A., & Fernandes, F. (Eds.). (2023). Digitalization and its impact on sustainable development. Empyreal Publishing House.
- Dasari, P. (2024). Digital lending in India: Harassment, settlements, and the rise of financial exploitation. SSRN. https://doi.org/10.2139/ssrn.5092390
- Alok, S., Ghosh, P., Kulkarni, N., & Puri, M. (2024). Open banking and digital payments: Implications for credit access (NBER Working Paper No. 33259). National Bureau of Economic Research. https://doi.org/10.3386/w33259
- Jain, A. (2024). How has digital lending impacted the Indian banking market. SSRN. https://ssrn.com/abstract=4582480
- Srivastava, A. K. (2021). Digital lending in India: The loan trap. Journal of the Legal Studies, LII, 65–74. https://ssrn.com/abstract=4681458
- Pushpa, B. V., Sathyanarayana, S. S., & Harsha, H. (2024). Unified Lending Interface (ULI): Transforming the digital lending ecosystem. Journal of Emerging Technologies and Innovative Research, 11(9), 252–257.
- Gnanakumar, P. B., & Baby, M. K. (2025). Empowering financial inclusion: A data-driven approach to affordable credit in UPI. Paper presented at the 22nd AIMS International Conference on Management.

WEBSITES

1. Department of Financial Services
   https://www.financialservices.gov.in/
2. India Brand Equity Foundation
   https://www.ibef.org/

कुमाऊँ के पर्वतीय ग्रामीण क्षेत्रों में उद्यमिता की संभावनाएं : परम्परागत कुटीर उद्योगों के संदर्भ में

आरती जोशी [1], जितेन्द्र कुमार लोहनी [2] एवं रूचि द्विवेदी [3]

सारांश

कुमाऊँ, हिमालय की गोद में बसा एक रमणीय क्षेत्र है, जो अपनी प्रा.तिक सुंदरता, समृद्ध संस्.ति और अनूठी परंपराओं के लिए जाना जाता है। इस क्षेत्र की अर्थव्यवस्था मुख्य रूप से कृषि और संबंधित गतिविधियों पर निर्भर है। हालांकि, आधुनिकता के प्रभाव और शहरीकरण के बढ़ते रुझान के कारण, कुमाऊं के पर्वतीय ग्रामीण क्षेत्रों में पारंपरिक व्यवसाय धीरे–धीरे कम होते जा रहे हैं, जिससे रोजगार की संभावनाएं सीमित होगई हैं। इस शोध पत्र का उद्देश्य कुमाऊँ के पर्वतीय ग्रामीण क्षेत्रों में पारंपरिक कुटीर उद्योगों के संदर्भ मे रोजगार की संभावनाओं का विश्लेषण करना है।

***कीवर्ड** : कुमाऊँ हिमालय, परम्परागत कुटीर उद्योग, रोजगार।*

प्रस्तावना

कुमाँऊ का पर्वतीय क्षेत्र स्थानीय स्तर पर परम्परागत कुटीर उद्योगों द्वारा उत्पादित विभिन्न उत्पादों का केन्द्र रहा है। जहां स्थानीय स्तर पर दैनिक जीवन की आवश्यकताओं की पूर्ति हेतु स्थानीय लोगों द्वारा ही कुटीर उद्योगों के माध्यम से उत्पाद तैयार किये जाते रहे हैं तथा यह कुछ वर्गों की आय अर्जन की मूल गतिविधि भी रही है। किन्तु आधुनिकता की दौड़ में विभिन्न अभावों एवं उपेक्षा के कारण ये परम्परागत उद्योग आधुनिक रूप से उन्नत वस्त्र उद्योग, प्लास्टिक उद्योग, स्टील उद्योग, फर्नीचर उद्योग आदि से पूर्ण रूपेण पिछड़ चुके हैं। इन उद्योगों को उत्पादों की जटिलता, मानकीकृत उत्पादों का अभाव बाजार प्रणाली से पूर्णतया उपेक्षित, कम आय दर के कारण युवा पीढ़ी का इन परम्परागत उद्योगों के प्रति कम लगाव, मध्यस्थों द्वारा शोषण जैसी समस्याओं से दोचार होना रहा है जिसकी परिणति के रूप में स्थानीय स्तर पर इन परम्परागत व्यवसायों के प्रति विमुखता के कारण पलायन, बेरोजगारी, निर्धनता जैसी समाजार्थिक समस्याएं उत्पन्न होने के साथ–साथ युवाशक्ति का ह्रास जैसी

1. शोध छात्रा, डिपार्टमेंट ऑफ रीजनल इकोनामिकस, एम0जे0पी0 रोहिलखण्ड वि0वि0, बरेली।
2. अर्थशास्त्र विभाग, डी0एस0बी0 परिसर, कुमाऊँ विष्वविद्यालय, नैनीताल।
3. असिस्टेंट प्रोफेसर, डिपार्टमेंट ऑफ रीजनल इकोनामिकस, एम0जे0पी0 रोहिलखण्ड वि0वि0, बरेली।

समस्या भी वर्तमान में कुमाँऊ के पर्वतीय क्षेत्रों में स्पष्ट रूप से दिखायी पड़ रही है। प्रस्तुत अध्ययन इन परम्परगत व्यवसायों के पिछड़ेपन के कारण, उससे उत्पन्न प्रभावों तथा उन्हें दूर करने के उपायों को सुझाने का एक प्रयास है जो इन व्याप्त कारणों को दूर करने एवं इनके विकास हेतु सुझाये गये उपायों द्वारा इनके उत्थान हेतु बनायी जाने वाली विभिन्न नीतियों के निर्धारण में सहायक होगा।

कुमाँऊ क्षेत्र के ग्रामीण परम्परागत कुटीर उद्योग

कुमाऊँ के ग्रामीण आत्मनिर्भरता का उल्लेख हमें इतिहास में पढ़ने को मिलता है। ग्राम व्यवस्था में प्रत्येक व्यक्ति किसी न किसी वृति से जुड़े रहकर स्वयं एवं अपने परिवार का भरण–पोषण करते थे। जिसमें लघु–कुटीर उद्योग प्रमुख थे। इन लोगों के द्वारा तैयार उत्पाद की देश के विभिन्न भागों एवं पड़ौसी देशों में भी माँग बनी रहती थी। कुछ उत्पादों की गुणवत्ता के कारण कुछ क्षेत्र–विशेष को तो बहुत अधिक प्रसिद्धि प्राप्त थी। कुमाँऊ के पर्वतीय क्षेत्रों में कुछ प्रमुख ग्रामीण परम्परागत कुटीर उद्योग निम्न हैं –

1. **रिंगाल एवं बांस से बने उत्पाद सम्बन्धी उद्योगः**– राज्य के पर्वतीय क्षेत्रों में प्रचुरता से होने वाले रिंगाल (चिमनोबबुसा फाल्काटा) तथा बांस (बम्बुसा एरिडिनारिफोलिया) खासकर अल्मोड़ा एवं पिथौरागढ़ जनपद के प्रमुख हस्तशिल्प उद्योग के रूप में जाने जाते हैं। रिंगाल एवं बास से डाले, कंडी, चटाई, सूप, मोस्टा, डोका, टोकरी, गोदा, बांसुरी, पिचकारी, हुक्का की नली, सूपा, छापरी आदि बनाने का व्यवसाय परम्परागत एवं पुश्तैनी रूप से स्थानीय जरूरतों एवं कच्चे माल की उपलब्धता के आधार पर किया जाता रहा है। इन उत्पादों का उपयोग स्थानीय कृषि कार्यों एवं घरेलू जरूरतों को पूरा करने हेतु किया जाता रहा है। वर्तमान समय में भी पर्वतीय क्षेत्रों में बहुत से परिवार इस उद्यागा को अपनी आजीविका के साधन के रूप में अपनाये हुए हैं। इन उत्पादों के निर्माता स्थानीय बाजारों अथवा मेलों में अपने उत्पादों का विक्रय करते हैं।
2. **भंगेल से बने उत्पाद सम्बन्धी उद्योग** :– कुमाऊँ के अनेक क्षेत्रों में भांग (कैनाबिस सैटाइवा एल.) जैसे पौधे का उपयोग कर स्थानीय जरूरतों को पूरा करने हेतु वस्त्र आदि का निर्माण परम्परागत रूप से स्थानीय कारीगरों द्वारा किया जाता रहा है। उत्तराखण्ड में पर्वतीय क्षेत्रों में निवास करते वाले लोग रहने वाले लोग पहले भांग के रेशों से वस्त्र, जूते, रस्सियाँ, अनाज रखने वाली वस्तुएं, मछली पकड़ने का जाल, खेती में काम आने वाली सहायक सामग्रियां सहित कई वस्तुएं बनाते थे। भांग से बने वस्त्रों को 'भंग्योल' तथा जूतों को 'छप्योल' कहा जाता था[1]। भाग से बुदलों (कंबल) तथा कुथलों (बोरों) का भी निर्माण किया जाता था, इनकी मजबूती के कारण बाजार में इनकी अधिक मांग रहती थी[2]।
3. **ताम्रशिल्प उद्योगः**– कुमाँऊ क्षेत्र के जनपद अल्मोड़ा में ताम्र आधिारित स्थानीय दैनिक आवश्यकताओं को पूर्ण करने वाले महत्वपूर्ण उद्योग का अपना ही महत्व रहा है। तांबे का प्रयोग प्रमुख रूप से घरेलू एवं धार्मिक कार्यों में प्रयुक्त होने वाले पात्रों के निर्माण में किया जाता था। यह एक लघु उद्योग के रूप में स्थानीय स्तर पर प्रसिद्ध था तथा लोगों की वृति का प्रमुख साधन रहा। कुमाऊँ में बहुत से स्थानों पर तांबे की खानें पायी जाती थीं। तांबे के बर्तनों में 'गागर (पानी रखने का घड़ानुमा बर्तन)' का निर्माण एवं मांग सबसे अधिक होती थी। इसके अलावा तौले,

कलश, परात, मंदिर से सम्बन्धित सामान तथा वाद्य यंत्रों में भी तांबे का प्रयोग किया जाता था।

4. **मृतिका शिल्प उद्योग** :– मिट्टी के बर्तन बनाने का कार्य भी स्थानीय स्तर पर एक व्यवसाय के रूप में किया जाता था तथा यह भी एक परम्परागत व्यवसाय के रूप में कुमाँऊ के पर्वतीय समाज में प्रचलित था।

5. **काष्ठशिल्प उद्योग**:– पर्वतीय क्षेत्रों में दैनिक आवश्यकताओं की पूर्ति हेतु जंगलों में प्रचुर मात्रा में काष्ठ उपलब्ध होने के कारण काष्ठशिल्प भी एक प्रमुख व्यवसाय था। लकड़ी का उपयोग कर स्थानीय जरूरतों को पूर्ण करने हेतु पाली, ठेकी, भदेले, नाली आदि तैयार किये जाते थे जिसे 'खराद' नामक यंत्र से बनाया जाता है जो जलशक्ति का उपयोग कर चलाये जाते थे अर्थात् 'ग्रीन एनर्जी' के आधार पर संचालित किये जाते थे। इसके अतिरिक्त उत्कृष्ट काष्ठकला के रूप में मकान के चौखटों, खिड़की आदि में नक्काशी करने का व्यवसाय भी प्रचुर रूप से किया जाता था।

6. **लौहशिल्प उद्योग** :– प्रत्येक गांव में इस वृति को अपनाने वाले लोग रहते थे जो कृषि एवं दैनिक जीवन में प्रयुक्त होने वाले लोहे के औजारों, बर्तनों, हथियार आदि को बनाने का कार्य करते थे। इनमें कुदाल, हल का फाल, कढ़ाई, हंसिया, घन, सब्बल, छेनी, हथौड़ा, चिमटर, त्रिशूल, घर के दरवाजे की सांकल आदि प्रमुख हैं।

7. **वस्त्र निर्माण उद्योग** :– स्थानीय स्तर पर उपलब्ध कच्चे माल के आधार पर चरखे तथा तकुवे से सूत से कपड़ा बुनने का कार्य भी कुमाँऊ में कई स्थानों पर प्रचलित था। इस प्रकार के बुने हुए कपड़े को स्थानीय भाषा में 'घर–बुण'[3] कहा जाता था। भांग एवं अन्य प्राकृतिक रेशों से भी वस्त्र बनाये जाते थे। उच्च हिमालयी क्षेत्रों में जहां भेड़पालन किया जाता है ऊन के बने वस्त्र एवं अन्य सामानों का उत्पादन किया जाता था इनमें पंखी, शाल, थुलमा, दन, चुटका, पंखी आदि प्रमुख हैं।

8. **अन्य उद्योग** :– उपरोक्त आजीविका के साधनों के अतिरिक्त दैनिक आवश्यकताओं से सम्बन्धित अन्य बहुत से कुटीर उद्योग भी परम्परागत रूप से समाज में प्रचलित थे जिनसे लोग अपनी आजीविका का निर्वहन करते थे। इन कुटीर उद्योगों की निर्मित वस्तुओं की खपत मुख्यत' स्थानीय स्तर पर अथवा मेलों आदि के माध्यम से होता था। मेलों के माध्यम से बहुत सी वस्तुएं अन्य स्थानों को भी जाती थी तथा लोकप्रिय थी। उदाहरण के लिये बागेश्वर तथा जौलजीवी के मेलों में ऊन से बने सामान की मांग दूर–दूर से मेले में आए हुए लोगों द्वारा की जाती थी।

कुमाऊँ में परम्परागत कुटीर उद्योगों की वर्तमान स्थिति एवं पिछड़ेपन के कारण

समय–समय पर विभिन्न कारकों द्वारा क्षेत्र में प्रचलित परम्परागत कुटीर उद्योगों पर वर्तमान वैश्विक परिस्थितियों का स्पष्ट प्रभाव दिखलायी देता है। वर्तमान में उपरोक्त व्यवसायों में अधिकांश विलुप्ति के कगार पर पहुंच चुके हैं अर्थात् उन उद्योगों/कार्यों में संलग्न लोगों द्वारा अपने परम्परागत व्यवसायों को किसी अन्य व्यवसाय से स्थापित कर लिया गया है। हमारे अध्ययन में इसके लिये जो प्रमुख कारण परिलक्षित होते हैं वो निम्न प्रकार से कहे जा सकते हैं :–

क) तकनीकी रूप से पिछड़ापन :– क्षेत्र में अधिसंख्य व्यवसाय केवल परम्परागत तकनीक के आधार पर ही पीढ़ी दर पीढ़ी हस्तान्तरित किये जा रहे थे उनमें आधुनिक नवीन तकनीक को

समावेशित नहीं किया गया जिससे इनके अधिक श्रमसाध्य होने के कारण निर्माण लागत में अधिकता आने लगी। जबकि आधुनिक नवीनतम तकनीक से उक्त कार्य कम निर्माण लागत पर आसानी से किया जाने लगा।

ख) **सरकारी प्रोत्साहन का अभाव** :– पारंपरिक रूप से स्थानीय जरूरतों के मुताबिक विभिन्न कुटीर उद्योगों में संलिप्त लोगों को आधुनिक तकनीक के सम्बन्ध में किसी प्रकार की कोई सहायता ना मिल पाने के कारण इन परम्परागत व्यवसायों का ह्रास या लोप होने लगा।

ग) **बाजार के विस्तार की क्षीण संभावनायें** :– स्थानीय स्तर पर परम्परागत तकनीक के प्रयोग से उत्पादित किये गये इन उत्पादों को बाजार के अभाव में अथवा बाजार के विस्तार की क्षीण संभावनाओं के कारण रोजगार के अवसरों में न्यूनता का सामना करना पडता़ है जिस कारण इस प्रकार के कुटीर उद्योगों को अपनाने के प्रति एक नकारात्मक दृष्टिकोण उत्पन्न हुआ तथा यह इन व्यवसायों की विलुप्ति का एक कारण बना।

घ) **वैश्विक प्रतिर्स्पधा** :– उदारीकरण के फलस्वरूप कुटीर उद्योगों को देश के भीतर जिस प्रकार से विदेशी प्रतिर्स्पधा का सामना करना पड़ा उसका इन परम्परागत उद्योगों की प्रगति पर भी विपरीत प्रभाव पड़ा। वैश्विक उत्पादों से प्रतिर्स्पधा ना करने के कारण ये पिछड़ते चले गये जिससे इन उद्योगों में संलग्न व्यक्तियों के समक्ष अपनी दैनिक आवश्यक्ताओं की पूर्ति हेतु समस्याएं उत्पन्न होने लगी तथा इन लोगों द्वारा अपने परम्परागत व्यवसायों को छोड़कर अन्य व्यवसाय (नौकरी आदि) अपनाये जाने लगे। पाण्डे एवं अन्य4 ने इस सम्बन्ध में लिखा है कि बाजार में स्टील के बत्रन आने से लोहे के बर्तनों के परम्परागत कुटीर उद्योग पर बहुत बुरा असर पड़ा।

कुमाऊँ में परम्परागत कुटीर उद्योगों के विलुप्तता का प्रभाव

विभिन्न स्तरों पर इन परम्परागत व्यवसायों के प्रभावों का अध्ययन करने पर ज्ञात होता है कि इनकी विलुप्तता स्थानीय स्तर पर एक गंभीर आर्थिक एवं सामाजिक समस्या को जन्म देती है। इसके कुछ प्रभावों को निम्न प्रकार से देखा जा सकता है –

1) **स्थानीय जनसंख्या का पलायन** :– स्थानीय स्तर पर ऐसे परम्परागत व्यवसायों को विभिन्न कारणों से ना अपनाने की परिणति अधिसंख्य पलायन के रूप में परिलक्षित होती है। जिसका नकारात्मक प्रभाव स्थानीय अर्थव्यवस्था के अतिरिक्त सामाजिक स्तर पर भी देखने को मिल रहा है तथा पर्वतीय क्षेत्रों में गांव के गांव परिवारों के पलायन के कारण खाली हो रहे हैं।

2) **आर्थिक रूप से हानि** :– इन परम्परागत कुटीर उद्योगों को स्थानीय लोगों द्वारा विभिन्न कारणों से परित्याग करने तथा पलायन कर अन्य क्षेत्रों में विभिन्न क्षेत्रों में संलग्न होकर (परम्परागत व्यवसाय के अतिरिक्त) आजीविका कमाने से जहां यह स्थानीय स्तर पर आर्थिक रूप से हानि का कारण बनता है वहीं परम्परागत व्यवसाय के अन्य क्षेत्र के व्यक्तियों के हस्तांतरण से पूंजी के स्थानान्तरण का भी प्रमुख कारण बनता है।

4) **व्यक्तिगत आर्थिक पिछडेपन को जन्म** :– इसका एक दुष्प्रभाव व्यक्तिगत रूप से आर्थिक पिछड़ेपन को जन्म के रूप में भी देखा जा सकता है क्योंकि स्थानीय स्तर पर परम्परागत कुटीर उद्यागों में संलग्न व्यक्ति अधिसंख्य रूप से जहां स्वरोजगाररत होते हैं वहीं पलायन के परिणाम

स्वरूप उनमें से अधिसंख्य को विभिन्न असंगठित क्षेत्रों में श्रमिक के रूप में भी न्यूनतम मजदूरी दरों पर कार्य करना पड़ता है। जो उनके आर्थिक स्वरूप के पिछड़ने के एक महत्वपूर्ण तत्व के रूप में कार्य करता है।

निष्कर्ष एवं सुझाव

उपरोक्त अध्ययन के आधार पर स्पष्ट होता है कि विभिन्न आर्थिक, सामाजिक एवं अन्य कारणों से स्थानीय स्तर पर व्यक्तियों द्वारा अंगीकृत न किये हो रहे इन परंपरागत व्यवसायों ने जहां एक ओर बेरोजगारी का जन्म दिया है वहीं यह इसे पलायन प्रमुख कारणों में से एक कारण भी बनाता है जिसका प्रभाव आर्थिक रूप से व्यक्तिगत ही नहीं वरन् सामाजिक एवं स्थानीय अर्थव्यवस्था पर भी पड़ता है। स्थानीय परम्परागत कुटीर उद्योगों का लोप या क्षीणता राज्य के आर्थिक विकास में जहां एक ओर बाधक है वहीं स्थानीय कला की उत्कृष्टता की क्षीणता राज्य की इस क्षेत्र में अपनी विशिष्ठ पहचान में भी एक बाधा के रूप में देखी जा सकती है। जिसके अन्ततः नकारात्मक प्रभाव ही देखने को मिलेंगे जो इन परम्परागत व्यवसायों के लुप्तता का कारण बनने के साथ ही क्षेत्र को आर्थिक रूप से पिछड़ेपन को जन्म देने के प्रमुख कारक के रूप में देखा जा सकता है।

यदि इन उद्योगों की ओर समुचित ध्यान दिया जाए तो यह रोजगार सृजन का माध्यम बनने से क्षेत्र से पलायन जैसी परिस्थितियों से निपटने का सशक्त माध्यम बनकर उभर सकते हैं। ऐसे समय में इन परम्परागत कुटीर उद्योगों को संरक्षित एवं पुर्नजीवित कर जनसंख्या के एक बड़े भाग को खासकर युवा शक्ति को पलायन से रोककर उनकी ऊर्जा को इन उद्योगों के माध्यम से राज्य की आर्थिक प्रगति हेतु सदुपयोग किया जा सकता है। जिससे एक ओर 'आत्मनिर्भर भारत' एवं 'लोकल टू ग्लोबल' का सपना साकार होगा वहीं राज्य की उन्नति का भी सशक्त माध्यम ये उद्योग बन सकेंगे जो राज्य में पर्यटन को भी बढ़ाने का कार्य करेंगे। जिससे प्रत्यक्ष एवं अप्रत्यक्ष रूप से रोजगार के विभिन्न अवसर जन्म लेंगे।

ऐसी स्थिति में इन परम्परागत कुटीर उद्योगों को जीवित रखने एवं इनमें संलग्न परिवारों की आजीविका एवं आर्थिक सुदृढ़ता को सुरक्षित रखने के साथ–साथ उन्हें प्रोत्साहित करने हेतु निम्न उपाय सुझाये जा सकते हैं –

1. आधुनिकता की दौड़ में पिछड़ते इन परम्परागत कुटीर उद्योगों को सरकार द्वारा स्थानीय स्तर पर स्वरोजगार का एक समुचित साधन तथा पलायन को रोकने के प्रभावी उपायों में से एक मानते हुए समुचित संरक्षण एवं प्रोत्साहन दिया जाय।
2. विभिन्न तकनीकी संस्थानों में इन स्थानीय परम्परागत व्यवसायों को आधुनिकी तकनीक से जोड़ते हुए संलग्न व्यक्तियों के समुचित प्रशिक्षण एवं रोजगार की सुविधा उपलब्ध करायी जाय।
3. इन उत्पादों को स्थानीय, प्रादेशिक एवं राष्ट्रीय स्तर पर बाजार उपलब्ध कराने हेतु 'दिल्ली हाट' या 'कुरूक्षेत्र मेले' की तर्ज पर बाजार उपलब्ध कराया जाय साथ ही आनलाइन विपणन की प्रकृया को भी इन उद्योगों में संलग्न व्यक्तियों को सरल रूप में उपलब्ध कराया जाय।

4. स्थानीय परम्परागत व्यवसायियों को सरकार (राज्य एवं केन्द्रीय) द्वारा प्रतिर्स्पधा में बने रहने हेतु विभिन्न प्रावधान जैसे – कच्चे सामान की आसानी से उपलब्धता, बैंक से आसान ऋण, ग्राम सभा या अन्य एन0जी0ओ0 के माध्यम से प्रशिक्षण कार्यक्रम आदि जैसे आवश्यक संरक्षण दिये जाने चाहिए।
5. विभिन्न माध्यमों से पलायन को रोकने एवं स्थानीय परंपरागत व्यवसाय के अपनाने की रूचि को जागृत करने हेतु प्रचार एवं प्रसार करने चाहिए तथा इच्छुक व्यक्तियों के समुचित प्रशिक्षण की व्यवस्था भी की जाने की आवश्यकता है।
6. स्थानीय परम्परागत कुटीर उद्योगों द्वारा उत्पादित साधनों की उत्कृष्टता को बढ़ाने एवं अंर्तराष्ट्रीय स्तर पर पहचान दिलाने हेतु सरकार द्वारा समय–समय पर प्रयास किये जाने चाहिए।
7. 'संघे शक्ति' की अवधारणा पर कार्य करते हुए इन उद्योगों में महिला सशक्तीकरण को भी प्रोत्साहित किया जाए जिसके लिए ग्रामीण स्तर पर स्वयं सहायता समूहों का निर्माण कर लघु–कुटीर उद्योगों को प्रोत्साहित कर महिलाओं को आर्थिक रूप से सशक्त बनाया जा सकता है जो काफी हद तक सम्पूर्ण परिवार के पलायन को रोकने में भी सहायक सिद्ध हो सकता है।

संदर्भ ग्रंथ :–

1. पांडे, बद्री दत्त,(1990–1997), कुमाँऊ का इतिहास, अल्मोड़ा बुक डिपो, अल्मोड़ा, पृ0618।
2. पाण्डे, पी0सी0, निर्मल जोशी, दवच सिंह पोखरिया. (2006). कुमाऊँ हिमालय की परंपरागत प्रोद्योगिकी, नीलाम्बर जोशी स्मृति संस्थान, अल्मोड़ा।
3. पांडे, बद्री दत्त,(1990–1997), कुमाँऊ का इतिहास, अल्मोड़ा बुक डिपो, अल्मोड़ा, पृ0618।
4. पाण्डे, पी0सी0, निर्मल जोशी, दवच सिंह पोखरिया. (2006). कुमाऊँ हिमालय की परंपरागत प्रोद्योगिकी, नीलाम्बर जोशी स्मृति संस्थान, अल्मोड़ा।

प्रधानमंत्री मुद्रा योजना (पीएमएमवाई) का वित्तीय समावेशन में योगदानः एक अध्ययन

प्रो0 एस0सी0 जोशी [1], डॉ0 विजेता सत्याल [2] एवं डॉ0 आरती परिहार [3]

शोध सारांश

प्रधानमंत्री मुद्रा योजना 8 अप्रैल 2015 को बैंक द्वारा माइक्रो यूनिट्स डेवलपमेंट एंड रिफाइनेंस एजेंसी (MUDRA) के तहत शुरू की गई है। जिसका मुख्य लक्ष्य सूक्ष्म और लघु उद्यमों को विकसित करने के साथ–साथ लोगों के जीवन स्तर को ऊपर उठाना है। PMMY के तहत बैंक से 3 प्रकार के लोन दिए जाते हैं जैसे शिशु, किशोर, तरुण, जहां तरुण श्रेणी में 10 लाख तक का लोन लिया जा सकता है। प्रदर्शन के मामले में तमिलनाडु, उत्तर प्रदेश और कर्नाटक ये भारत के शीर्ष 3 राज्य हैं। योजना को अंजाम देने के लिए सरकार ने MUDRA (माइक्रो यूनिट्स डेवलपमेंट एंड रिफाइनेंस एजेंसी लिमिटेड) नाम से एक नया संगठन स्थापित किया है, जो माइक्रो यूनिट्स के विकास और पुनर्वित्त के साथ–साथ सामान्य रूप से माइक्रो फाइनेंस सेक्टर के रूप में काम करने के लिए जिम्मेदार होगा। MUDRA उन सभी बैंकों को पुनर्वित्त प्रदान करता है जो PMMY कार्यक्रम के तहत किए गए छोटे फर्म लोन को पुनर्वित्त करना चाहते हैं। इस शोध कार्य में डेटा विभिन्न पत्रिकाओं, लेखों और मुद्रा वेबसाइटों जैसे द्वितीयक स्रोतों से एकत्र किया गया है।

कीवर्डः *मुद्रा, सूक्ष्म और लघु उद्यम, प्रदर्शन, सूक्ष्म इकाइयाँ, सूक्ष्म वित्त*

1. परिचय

वित्त किसी नए व्यवसाय की स्थापना का एक महत्वपूर्ण पहलू है। यह व्यवसाय के रक्त की तरह काम करता है, जो जीवित रहने के लिए आवश्यक है। सरकार कई वित्तीय समावेशन कार्यक्रमों को अपनाकर छोटे और नवजात व्यवसायों की सहायता करती है। यह सूक्ष्म उद्यमों से लेकर मध्यम आकार के व्यवसायों और छोटे व्यवसायों तक समाज के सभी वर्गों को सस्ती वित्तीय सेवाएँ प्रदान करता है। वित्तीय सहायता प्रदान करने के लिए, सरकार ने भारत में छोटी इकाइयों की उन्नति में पेशेवर बैंकिंग बाज़ारों की शुरुआत की है, जिसे औपचारिक रूप से MUDRA योजना के रूप में जाना जाता है।[1] MUDRA योजना 8 अप्रैल, 2015 को माननीय प्रधान मंत्री द्वारा शुरू की गई एक प्रमुख पहल है,

1. प्राध्यापक एवं विभागाध्यक्ष, अर्थशास्त्र विभाग, एस0एस0जे0 परिसर, अल्मोड़ा, (उत्तराखण्ड)।
2. सहायक प्राध्यापक, अर्थशास्त्र विभाग, एस0एस0जे0 परिसर, अल्मोड़ा, (उत्तराखण्ड)।
3. सहायक प्राध्यापक, अर्थशास्त्र विभाग, एस0एस0जे0 परिसर, अल्मोड़ा, (उत्तराखण्ड)।

जिसमें सार्वजनिक बैंक (इलाहाबाद बैंक, आंध्रा बैंक, बैंक ऑफ बड़ौदा, बैंक ऑफ इंडिया, बैंक ऑफ महाराष्ट्र) निजी बैंक (ICICI बैंक, कर्नाटक बैंक, करूर वैश्य बैंक, इंडसइंड बैंक, HDFC बैंक आदि), क्षेत्रीय ग्रामीण बैंक (आंध्र प्रदेश ग्रामीण विकास बैंक, उत्तर बिहार ग्रामीण बैंक, उत्तराखंड ग्रामीण बैंक आदि), राज्य सहकारी बैंक (अंडमान और निकोबार राज्य सहकारी बैंक लिमिटेड आदि), विदेशी बैंक (सिटी बैंक), और गैर–बैंकिंग वित्तीय संस्थान छोटे किसानों, सूक्ष्म उद्यमों को 10 लाख रुपये तक का ऋण प्रदान करेंगे। इस योजना को शुरू करने का मुख्य उद्देश्य हमारे देश में अधिक से अधिक उद्यम स्थापित करने के लिए उद्यमों को प्रेरित और प्रोत्साहित करना है। इस योजना को सफल बनाने के लिए भारत सरकार ने हमारे देश में कई मुद्रा इकाइयाँ स्थापित की हैं जो बैंकों को पुनर्वित्त प्रदान करती हैं और फिर वे छोटे ऋण चाहने वालों को ये ऋण प्रदान करती हैं। उनका मुख्य उद्देश्य इन ऋण चाहने वालों को वित्तीय सहायता देना है। मुद्रा ऋण फर्मों को एक तार्किक वित्तीय ढांचा प्रदान करने या "अल्पवित्तपोषितों को वित्तपोषित करने" के लिए बनाए गए थे।[2] मुद्रा ऋण का उपयोग कई उद्देश्यों के लिए किया जाता है, जिसमें उत्पादन, परिवहन, व्यापार और गैर–कृषि–संबंधित कार्यों में रोजगार सृजन और राजस्व सृजन शामिल है।

मुद्रा कार्ड

मुद्रा कार्ड माइक्रो क्रेडिट और रिफाइनेंसिंग एजेंसियों द्वारा मुद्रा उपयोगकर्ताओं को उनके खाते को संभालने और उनके ऋण के पैसे जमा करने और निकालने के लिए जारी किया गया डेबिट कार्ड है। मुद्रा कार्ड मुद्रा उपयोगकर्ताओं को स्वयं को डिजिटल बनाने में मदद करता है। वे उन्हें कहीं से भी एटीएम से आसानी से अपना पैसा निकालने में मदद करते हैं।

मुद्रा के उत्पाद

मुद्रा (सूक्ष्म विकास और पुनर्वित्त एजेंसी लिमिटेड) पीएमएमवाई के तहत सरकार की एक योजना है जिसका उद्देश्य छोटे उद्यमों को 10 लाख रुपये तक का ऋण प्रदान करना और बैंकों/एमएफआई /एनबीएफसी को पुनर्वित्त प्रदान करके उन्हें वित्तीय रूप से समर्थन देना है जो उन उद्यमों को अग्रेषित करता है जिन्हें इन ऋणों की आवश्यकता होती है।

प्रधानमंत्री मुद्रा योजना (पीएमएमवाई)

प्रधानमंत्री मुद्रा योजना ने PMMY के तहत एक और योजना शुरू की है जिसे 'शिशु', 'किशोर' और 'तरुण' के नाम से जाना जाता है, जिसका मूल उद्देश्य सूक्ष्म उद्यमों की वृद्धि/विकास और वित्तपोषण की जरूरतों को पूरा करना है और वे उन्हें उनके भविष्य के अवसरों के लिए सुझाव भी देते हैं जो उन्हें मिल सकते हैं।

- वे शिशु योजना के तहत 50,000 रुपये तक का ऋण देते हैं।
- वे किशोर योजना के तहत 50,000 रुपये से लेकर 500,000 रुपये तक का ऋण देते हैं।

- वे तरुण योजना के तहत 5,00,000 रुपये से लेकर 10,00,000 रुपये तक का ऋण देते हैं।

उनका मुख्य उद्देश्य भावी पीढ़ी में उद्यमिता के बारे में जागरूकता फैलाना है और वे यह भी सुनिश्चित करते हैं कि वे पहले शिशु श्रेणी पर ध्यान केंद्रित करें और उसके बाद किशोर और तरुण पर ध्यान दें और छोटे उद्यमों का विकास और वृद्धि करें।

मुद्रा वित्तपोषण प्रणाली के प्रकार

- माइक्रो क्रेडिट योजना (MCS) का उद्देश्य डथ्प् के माध्यम से 1 लाख तक का ऋण प्रदान करना है।
- पुनर्वित्त योजना जो वाणिज्यिक बैंकों (इलाहाबाद बैंक, आंध्र बैंक, बैंक ऑफ बड़ौदा, बैंक ऑफ इंडिया, बैंक ऑफ महाराष्ट्र आदि), क्षेत्रीय ग्रामीण बैंकों (RRB) बैंकों (आंध्र प्रदेश ग्रामीण विकास बैंक, उत्तर बिहार ग्रामीण बैंक, उत्तराखंड ग्रामीण बैंक आदि), छोटे वित्तपोषण बैंकों और गैर–बैंकिंग वित्तीय संस्थानों (NBFI) को ऋण प्रदान करती है और फिर वे इन ऋणों को छोटे ऋण चाहने वालों को पुनर्वित्त करते हैं।

माइक्रो क्रेडिट योजना

माइक्रो क्रेडिट एक ऐसी योजना है जिसमें माइक्रो फाइनेंस संस्था विभिन्न छोटे उद्यमों, छोटे ऋण चाहने वालों और व्यक्तिगत उद्यमों को 1 लाख रुपये तक का ऋण प्रदान करती है।

बैंकों/एनबीएफसी के लिए पुनर्वित्त योजना

पुनर्वित्त योजना के तहत सूक्ष्म विकास और पुनर्वित्त एजेंसी वाणिज्यिक बैंकों, क्षेत्रीय ग्रामीण बैंकों, लघु वित्त बैंकों को 10 लाख तक का ऋण प्रदान करती है जिसे वे आगे छोटे उद्यमों को देते हैं और ये बैंक शिशु, किशोर और तरुण योजना के तहत इन ऋणों को पुनर्वित्त भी करते हैं और छोटे उद्यमों के विकास और वृद्धि में मदद करते हैं। इस योजना के तहत वे विशेष रूप से महिला उद्यमियों को नया उद्यम स्थापित करने के लिए प्रेरित करते हैं और वे महिलाओं को कम ब्याज दर पर ये ऋण प्रदान करते हैं।

मुद्रा लोन का उद्देश्य

मुद्रा लोन का मुख्य उद्देश्य छोटे उद्यमियों को 10 लाख रुपये तक का लोन देकर उन्हें अधिक से अधिक उद्यम स्थापित करने के लिए प्रेरित करना है।

- मुद्रा लोन छोटे विक्रेताओं, दुकानदारों और छोटे उद्यमियों को व्यवसाय ऋण प्रदान करता है।
- किसानों को मधुमक्खी पालन, मुर्गी पालन आदि जैसी विभिन्न गतिविधियों के लिए ऋण प्रदान करता है।
- वाणिज्यिक उद्देश्य के लिए वाहन ऋण प्रदान करता है।
- छोटे उद्यमों को उपकरण ऋण प्रदान करता है।

साहित्य की समीक्षा

(अग्रवाल और द्विवेदी, 2017)[3] अध्ययन में प्रधानमंत्री मुद्रा योजना (पीएमएमवाई) का विश्लेषण किया गया है तथा राज्य, जाति और श्रेणी के आधार पर योजना के प्रदर्शन का विश्लेषण किया गया है। लेखक ने पीएमएमवाई की विशेषताओं और एसडब्ल्यूओटी विश्लेषण का भी वर्णन किया है। अंडमान एवं निकोबार द्वीपसमूह और लक्षद्वीप जैसे केंद्र शासित प्रदेशों की विकास दर नकारात्मक है और राज्य–दर–राज्य आधार पर संतोषजनक नहीं है, जबकि असम और त्रिपुरा की विकास दर सबसे अधिक है। लेखक के अनुसार पीएमएमवाई योजना सरकार द्वारा उठाया गया एक सराहनीय कदम है, जिससे कमजोर वर्ग और निम्न आय वर्ग को काफी मदद मिली है।

(सोनी, 2016)[4] यह शोध पत्र मुद्रा को समझने का एक प्रयास है। सूक्ष्म इकाइयों और पुनर्वित्त एजेंसी का विकास। इस शोध पत्र का मुख्य उद्देश्य मुद्रा योजना, इसकी आवश्यकता और इससे लाभ उठाने के लिए आवश्यक कानूनी ढांचे को समझना है। इस परियोजना के सफल समापन के लिए सरकार द्वारा सुझाए गए समाधानों की जांच करना। यह शोध वर्णनात्मक प्रकृति का है और साथ ही द्वितीयक डेटा का उपयोग किया गया है, जिसे समाचार पत्रों, सरकारी वेबसाइट, प्रकाशन और संस्थानों की रिपोर्टों से लिया गया है। लेखक ने अंततः निष्कर्ष निकाला कि मुद्रा छोटे पैमाने के उद्यमों में नया आत्मविश्वास पैदा करेगी और युवा, शिक्षित या कुशल लोगों को अपने कार्यों को बढ़ाने के लिए प्रोत्साहित करेगी। साथ ही, मुद्रा योजना का महिला सशक्तिकरण में महत्वपूर्ण योगदान है।

(रमेश, 2016)[5] यह अध्ययन मुद्रा बैंक योजनाओं के प्रदर्शन मूल्यांकन पर केंद्रित था। इस शोध पत्र का उद्देश्य मुद्रा बैंक योजनाओं और उनके प्रदर्शन के बारे में अध्ययन करना है। यह एक वर्णनात्मक शोध है, तथा 2015–16 के लिए मुद्रा डेटा वेबसाइटों, पत्रिकाओं और समाचार पत्रों जैसे द्वितीयक माध्यम से एकत्र किया गया है।शोध में यह निष्कर्ष निकला है कि शिशु योजना का प्रदर्शन बहुत अच्छा रहा और एससी/एसटी/ओबीसी वर्ग को अन्य योजनाओं की तुलना में शिशु योजना से अधिक लाभ मिला।

(गिरनारा, 2015)[6] यह शोधपत्र मुद्रा योजना और उद्यमिता को बढ़ावा देने में इसकी भूमिका तथा भारतीय अर्थव्यवस्था पर इसके प्रभाव को दर्शाता है। इस शोधपत्र का मुख्य उद्देश्य भारतीय अर्थव्यवस्था पर मुद्रा योजना के सकारात्मक प्रभाव, भूमिका प्रभावशीलता को उजागर करना है, साथ ही मुद्रा बैंक योजना और ऋण पर ब्याज दर के बारे में बताना है। इस शोधपत्र में मुद्रा बैंक ऋण की तुलना अन्य व्यवसाय ऋण से की गई है, जहाँ मुद्रा बैंक ऋण की ब्याज दर अन्य व्यवसाय ऋण की तुलना में कम है। मुद्रा ऋण में दस्तावेज़ की आवश्यकता और शुल्क बहुत कम है। लेखक के अनुसार, मुद्रा योजना ने भारत में उद्यमिता को बढ़ावा देने के साथ–साथ अर्थव्यवस्था को सकारात्मक दिशा दी है।

अध्ययन के उद्देश्य

1. प्रधानमंत्री मुद्रा योजना (च्डडल) का आलोचनात्मक मूल्यांकन करना।
2. मुद्रा योजना के तहत विभिन्न श्रेणियों के प्रदर्शन का विश्लेषण करना।

3. PMMY के तहत उत्पादों की पेशकश को समझना।
4. भारत के विभिन्न राज्यों में वित्तीय संस्थानों द्वारा ऋण स्वीकृति का मूल्यांकन करना।

शोध पद्धति

शोध वर्णनात्मक प्रकृति का होगा। इस अध्ययन में मुद्रा योजना के अवलोकन पर ध्यान केंद्रित किया गया है, जिसमें मुद्रा द्वारा पेश की जाने वाली योजनाएं और पीएमएमवाई का समग्र प्रदर्शन शामिल है और भारत के विभिन्न राज्यों में वित्तीय संस्थानों द्वारा ऋण स्वीकृति का मूल्यांकन किया गया है। प्रस्तुत शोध पत्र मुख्य रूप से द्वितीयक स्रोतों पर आधारित है और द्वितीयक संमक सरकारी वेबसाइटों, लेख, शोध पत्र, मुद्रा वेबसाइट, पुस्तकों, समाचार पत्रों से एकत्र किया गया है।

भारत में मुद्रा योजना का प्रदर्शन

भारत के 10 शीर्ष राज्यों का प्रदर्शन (वित्तीय वर्ष–2023–24)

क्रम0संख्या	राज्य का नाम	स्वीकृत धन राशि (करोड़ में)
1	उत्तर प्रदेश	59506.73
2	बिहार	58722.25
3	तमिलनाडु	57616.6
4	कर्नाटक	49684.3
5	पश्चिम बंगाल	47124.58
6	म्हाराष्ट्र	43075.16
7	राजस्थान	26955.25
8	मध्य प्रदेश	26146.21
9	उड़ीसा	23539.15
10	गुजरात	19870.65
	योग	412240.88

स्रोत– https://www.mudra.org.in/PMMYReport 2023-24

वित्त वर्ष 2023–2024 के दौरान लोन स्वीकृति के मामले में उत्तर प्रदेष तथा बिहार भारत के शीर्ष 2 राज्यों में शामिल हैं। वहीं पश्चिम बंगाल पांचवें स्थान पर है, ओडिशा तथा गुजरात क्रमशः 9वें और 10वें स्थान पर हैं। वित्त वर्ष 2023–24 में भारत के शीर्ष 10 राज्यों ने मिलकर PMMY योजना के तहत करीब 4.12 लाख करोड़ रुपये का लोन स्वीकृत किया है।

क्षेत्रीय विश्लेषण (वित्तीय वर्ष–2023–24)

क्षेत्र	खातों की संख्या	स्वीकृत धन राशि (करोड़ में)
उत्तर	1,38,08,409	1,30,479.38
पूर्व	2,27,39,462	1,51,419.6
उत्तर पूर्व	11,84,785	11,697.95
दक्षिण	1,83,10,948	1,57,448.88
पश्चिम	1,07,33,409	89,967.04
कुल	6,67,77,013	5,41,012.85

स्रोत– https://www.mudra.org.in/PMMYReport 2023-24

वित्त वर्ष 2023–24 में लोन स्वीकृति में दक्षिणी क्षेत्र शीर्ष पर रहा, जबकि पूर्वी और उत्तरी क्षेत्र को दूसरा और तीसरा स्थान प्राप्त है। 89,967.04 करोड़ रुपये लोन स्वीकृत करके पष्चिमी क्षेत्र चौथे और पूर्वोत्तर क्षेत्र पांचवें स्थान पर है। वित्त वर्ष 2023–24 में पूरे क्षेत्र को मिलाकर पीएमएमवाई योजना के तहत करीब 5.410 लाख करोड़ रुपये का लोन स्वीकृत किया गया है। वित्त वर्ष 2023–24 में सभी क्षेत्रों को मिलाकर देखा जाए तो करीब 6.67 करोड़ खाताधारक पीएमएमवाई योजना से जुड़े हैं।

एजेंसी–वार प्रदर्शन, वित्तीय वर्ष 2023–24

वित्तीय संस्थान	लक्ष्य धनराशि (करोड़ में)	स्वीकृत धनराशि (करोड़ में)	प्रतिशत (स्वीकृत धन राशि / लक्ष्य धनराशि)*100
सार्वजनिक क्षेत्र के बैंक (एसबीआई और क्षेत्रीय ग्रामीण बैंक एवं उसके सहयोगी सहित)	202000	204338	101
निजी क्षेत्र के बैंक (विदेशी बैंक सहित)	145000	175277	121
लघु वित्त बैंक	42000	45190	108
सूक्ष्म वित्त संस्थाएं	74000	77203	104
गैर–बैंकिंग वित्त कम्पनियाँ	37000	39004	105
योग	500000	541012	108

स्रोत– https://www.mudra.org.in/PMMYReport 2023-24

वित्त वर्ष 2023–24 में भारत सरकार द्वारा पीएमएमवाई के अंतर्गत 5 लाख करोड़ रुपये के संवितरण का लक्ष्य रखा गया था, जिसे विभिन्न वित्तीय संस्थाओं द्वारा वितरित किया गया। एजेंसी–वार प्रदर्शन से पता चलता है कि सभी वित्तीय संस्थाओं द्वारा अपने लक्ष्य से अधिक के ऋण वितरित किए हैं। जिसमें सर्वाधिक निजी क्षेत्र के बैंकों (विदेशी बैंकों सहित) का प्रतिशत 121 प्रतिशत रहा उसके बाद क्रमशः लघु वित्त बैंक 108 प्रतिशत, गैर–बैंकिंग वित्त कम्पनियाँ 105 प्रतिशत, सूक्ष्म वित्त संस्थाएं 104 प्रतिशत तथा सार्वजनिक क्षेत्र के बैंकों (क्षेत्रीय ग्रामीण बैंकों सहित) ने अपने लक्ष्य से अधिक 101 प्रतिशत हासिल किया। अतः सभी वित्तीय संस्थानों ने अपने 100 प्रतिशत से अधिक लक्ष्य हासिल कर लिए हैं।

श्रेणीवार विश्लेषण (वित्तीय वर्ष–2023–24)

श्रेणी	ऋण खातों की संख्या	स्वीकृति राशि (करोड़ में)
शिशु	4,16,28,309	1,48,937
किशोर	2,36,30,890	2,62,285
तरूण	15,17,814	1,29,791
कुल योग	6,67,77,013	5,41,013

स्रोत– https://www.mudra.org.in/PMMYReport 2023-24

वित्त वर्ष 2023–24 में पीएमएमवाई के तहत शिशु श्रेणी में लगभग 1.48 लाख करोड़, किशोर श्रेणी में 2.62 लाख करोड़ तथा तरुण श्रेणी के अन्तर्गत 1.29 लाख करोड़ रुपये के ऋण स्वीकृत किए गए। ऋण खातों की संख्या के मामले में शिशु श्रेणी सबसे षीर्ष स्थान पर है।

निष्कर्ष

इस शोध पत्र में प्रधानमंत्री मुद्रा योजना के विभिन्न पहलुओं को दर्शाया गया है तथा मुद्रा योजना की श्रेणियों जैसे 'शिशु', 'किशोर' और 'तरुण' श्रेणी के अन्तर्गत लिए जाने वाले स्वीकृत ऋण तथा ऋण खातों के बारे में बतलाया गया है। प्रस्तुत शोध पत्र अपने उद्देश्य को पूरा करते हुए शीर्ष 10 राज्यों के प्रदर्शन को दर्शाता है, जिसमें उत्तर प्रदेष ऋण स्वीकृतियों में पहले स्थान पर है। इसके साथ ही भारत के विभिन्न क्षेत्रों में मुद्रा योजना के तहत बैंक खातों और स्वीकृत ऋणों को भी दर्शाया गया है। 2023–2024 में लक्ष्य राशि की तुलना में स्वीकृत राशि का प्रतिशत 108 प्रतिशत है। वित्त वर्ष 2023–24 में पीएमएमवाई के तहत शिशु श्रेणी में लगभग 1.48 लाख करोड़, किशोर श्रेणी में 2.62 लाख करोड़ तथा तरुण श्रेणी के अन्तर्गत 1.29 लाख करोड़ रुपये मंजूर किए गए हैं। ऋण खातों के मामले में शिशु श्रेणी षीर्ष स्थान पर है।

Reference

1. Sunita Sharma & Ruchi Gupta (2021);Impact of Pradhan Mantri Mudra Yojana on the Indian Banking Sector. *International Journal of Multidisciplinary Educational Research, 3*(2), 95-101.
2. Mahajan, A. (2018); An analysis of performance and impact of MUDRA Yojana under PMMY. *Research Journal of Management Sciences, 7*(3), 1–5.
3. Agarwal M, Dwivedi R. Pradhan Mantri Mudra Yojna: A Critical Review. Parikalpana - KIIT Journal of Management, 2017, 97-106.
4. Soni A. MUDRA: Micro Units Development and Refinance Agency. EPRA International Journal of Economic and Business Review, 2016, 33-36.
5. Ramesh, P. Performance Evaluation of Mudra Bank Schemes - A Study. Anveshana's International Journal of Research in Regional Studies, Law, Social Sciences, Journalism and Management Practices. 2016, 116-120.
6. Girnara M. Mudra Yojna and its role in promoting entrepreneurship and impact on Indian Economy, 2015.
7. Kumar S. Impact of Mudra Yojana on Financial Inclusion. 6th International Conference on Recent Trends in Engineering, Science & Management. Punjab, 2017.

8. Mol TP S. Financial Inclusion: Concepts and Overview in Indian Context. Abhinav International Monthly Refereed Journal of Research in Management & Technology. 2014;3:28-35

9. Ramesh, P. Performance Evaluation of Mudra Bank Schemes - A Study. Anveshana's International Journal of Research in Regional Studies, Law, Social Sciences, Journalism and Management Practices. 2016, 116-120.

10. Roy, Anup Kumar. "Mudra Yojana- A Strategic tool for Small Business Financing", International Journal of Advance Research in Computer Science and Management Studies. 2016;4(1):68-72.

11. Verma S. Chandra. Mudra Bank to "Fund Small Businesses". Research Spectra, ISSN 2394 – 9805, 2015, I(2-3).

12. Official website of MUDRA scheme. (http://www.mudra.org.in/)

राजकोषीय और वित्तीय स्थिरता राजकोषीय समेकन

भगवान दास [1] एवं डॉ. वेद प्रकाश मिश्रा [2]

सारांश

राजकोषीय समेकन का तात्पर्य दीर्घकालिक आर्थिक स्थिरता सुनिश्चित करने के लिये सरकारी वित्त के विवेकपूर्ण प्रबंधन से है। यह सरकारी राजस्व (कर और गैर–कर प्राप्तियाँ) को व्यय के साथ संतुलित करने पर केंद्रित है, जिसका उद्देश्य राजकोषीय घाटे को न्यूनतम करना, लोक ऋण को नियंत्रित करना और सतत् आर्थिक विकास में सहायता करना है।सरकारी खर्चों को कम करना और राजकोषीय घाटे को कम करना. यह सरकार की एक नीति है जिससे देश की आर्थिक स्थिरता को मजबूती मिलती है. राजकोषीय समेकन सरकार द्वारा शुरू की गई नीतिया का एक समूह है जिससे सरकारी घाटे और ऋण संचय को कम किया जा सके।बेहतर आर्थिक विकास से घाटे पर अंकुश लगाया जा सकता है जिससे अधिक राजस्व प्राप्त हो और व्यय कम हो।राजस्व बढ़ाकर और व्यय घटाकर राजकोषीय समेकन प्राप्त किया जा सकता है। भारत में राजकोषीय नीति भारत की आर्थिक रणनीति की आधारशिला है, जो देश की वृद्धि को विकास और चुनौतियों के विभिन्न चरणों के माध्यम से आगे बढ़ाती है। यह देश के विकास पथ को आकार देने, इसकी व्यापक आर्थिक स्थिरता को प्रभावित करने और सामाजिक – आर्थिक चुनौतियों का समाधान करने में महत्त्वपूर्ण भूमिका निभाती है।

विवेकपूर्ण व्ययरू बुनियादी ढाँचे, स्वास्थ्य और शिक्षा जैसे आवश्यक, कुशल और उत्पादक क्षेत्रों पर ध्यान केंद्रित किया जाता है।

राजस्व अनुकूलनरू कर संग्रह को अधिकतम करना, कर चोरी को कम करना और कर आधार को व्यापक बनाना।

अत्यधिक उधार लेने से बचने के लिये राजकोषीय घाटे को सीमित किया जाता है। आर्थिक संकटों से बचने के लिये लोक ऋण को धारणीय बनाए रखना। अंकेक्षण और विनियमों के अनुपालन के माध्यम से पारदर्शिता सुनिश्चित करना।

राजकोषीय घाटा सरकार के वित्तीय स्वास्थ्य का सबसे महत्वपूर्ण संकेतक है।

सरकार के दो प्रमुख घाटे होते हैं : राजस्व घाटा और राजकोषीय घाटा।

राजस्व घाटा

सरकार का कुल राजस्व व्यय उसकी कुल राजस्व प्राप्तियों से अधिक हो, अर्थात शुद्ध आय शुद्ध व्यय से कम हो जाती है, तो राजस्व घाटा होता है।

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यह घाटा तब होता है जब राजस्व या व्यय की वास्तविक राशि बजटीय राजस्व या व्यय के अनुरूप नहीं होती है।

राजस्व घाटा = कुल राजस्व व्यय– कुल राजस्व प्राप्तियां

राजकोषीय घाटा

राजकोषीय घाटा सरकार के कुल व्यय और कुल प्राप्तियाँ (उधार को छोड़कर) के बीच का अंतर होता है।

राजकोषीय घाटा = कुल व्यय(राजस्व. पूंजीगत) - कुल प्राप्तियां (राजस्वपूंजीगत(उधार और अन्य देयताए छोड़कर)

किसी देश के राजकोषीय घाटे को सामान्य तौर पर इसके सकल घरेलू उत्पाद (GDP) के प्रतिशत के रूप में दर्शाया जाता है।

राजकोषीय नीति कुल मांग को प्रभावित करने के लिए सरकारी खर्च, करों और हस्तांतरण का उपयोग करती है और वास्तविक सकल घरेलू उत्पाद (GDP) को प्रभावित करती है।

मुख्य शब्द (key words) *आय, व्यय, ऋण, कर, घाटा, राजकोषीय घाटा, राजस्व घाटा, राजकोषीय नीति*

प्रस्तावना

राजकोषीय समेकन दीर्घकालिक आर्थिक स्थिरता सुनिश्चित करने के लिए महत्वपूर्ण है, क्योंकि यह राजकोषीय घाटे को कम करता है, सार्वजनिक ऋण को नियंत्रित करता है और सतत आर्थिक विकास को बढ़ावा देता है.

राजकोषीय समेकन के लिए सरकार कई कदम उठाती है, जैसेरू

1– कर आधार को व्यापक बनाना

2–कर रियायतों और छूटों को खत्म करना

3– व्यय में कटौती करना

4– राजस्व बढ़ाने के लिए कदम उठाना

5– सब्सिडी को ज्यादा सटीक रूप से लक्षित करना

6– प्रत्यक्ष लाभ हस्तांतरण योजना का विस्तार करना

राजकोषीय घाटा सरकार के वित्तीय स्वास्थ्य का सबसे महत्वपूर्ण संकेतक है।

सरकार के दो प्रमुख घाटे होते हैं : राजस्व घाटा और राजकोषीय घाटा।

राजस्व घाटा

सरकार का कुल राजस्व व्यय उसकी कुल राजस्व प्राप्तियों से अधिक हो, अर्थात शुद्ध आय शुद्ध व्यय से कम हो जाती है, तो राजस्व घाटा होता है।

यह घाटा तब होता है जब राजस्व या व्यय की वास्तविक राशि बजटीय राजस्व या व्यय के अनुरूप नहीं होती है।

राजस्व घाटा = कुल राजस्व व्यय– कुल राजस्व प्राप्तियां

राजकोषीय घाटा

राजकोषीय घाटा सरकार के कुल व्यय और कुल प्राप्तियाँ (उधार को छोड़कर) के बीच का अंतर होता है।

राजकोषीय घाटा= कुल व्यय (राजस्व + पूंजीगत) – कुल प्राप्तियां (राजस्व. पूंजीगत (उधार और अन्य देयताए छोड़कर)

किसी देश के राजकोषीय घाटे को सामान्य तौर पर इसके सकल घरेलू उत्पाद (GDP) के प्रतिशत के रूप में दर्शाया जाता है।

राजकोषीय नीति कुल मांग को प्रभावित करने के लिए सरकारी खर्च, करों और हस्तांतरण का उपयोग करती है और वास्तविक सकल घरेलू उत्पाद (GDP) को प्रभावित करती है।

सकल राजकोषीय घाटा जो 1970 के मध्य सकल घरेलू उत्पाद का 4% था (ऐसी स्थिति में जबकि सार्वजनिक क्षेत्र के माध्यम से विकास पर बल बहुत अधिक था) तथा 80 के दशक में 6% था, 1985–86 के बाद 8% से अधिक हो गया, 1990–91 में जब भारत घोर आर्थिक संकट में था तब राजकोषीय घाटा 8.3% हो गया। इसलिए सरकार ने राजकोषीय घाटा को कम करने जिससे वित्तीय संतुलन कायम रह सके अनेक कदम उठाए।

भारत में विभिन्न वर्षो में विभिन्न प्रकार के घाटे का विवेचन या राजकोषीय असंतुलन या अस्थिरता की व्याख्या हम तीन वर्गों में रखकर कर सकते हैं

1– एफआरबीएम एक्ट लागू होने का पूर्व

2– 2003–04 – 2007– 08 के बीच या विश्व रेशेसन शुरू होने से पूर्व होने की अवधि

3– 2008–09 से अब तक

A– एफ.आर.बी.एम. के पूर्व की अवधि

1991 में जब तक लोगों ने आर्थिक सुधार की प्रक्रिया शुरू की उसे समय राजस्व, बजटरी तथा राजकोषीय घाटा का स्थिति गंभीर तथा चुनौतीपूर्ण थी आर्थिक सुधारो की शुरुआत में राजकोषीय घाटा सकल जीडीपी का 8.3 प्रतिशत रहा जो अपने में एक गंभीर राजकोषीय असंतुलन का संकेत करता है और इस प्रकार की गंभीर स्थिति आर्थिक सुधारो की परवर्ती अवधि में तथा एफआरबीएम अधिनियम की पूर्ववर्ती अवधि में बनी रही। इस अवधि में जीडीपी के प्रतिशत रूप में राजस्व घाटा लगभग 4.4% तथा राजकोषीय घाटा औसतन 6% बना रहा। सबसे गंभीर प्रवृत्ति इस अवधि की यह रही कि राजकोषीय

घाटा के अनुपात के रूप में राजस्व घाटा 70% से ऊपर रहा, जो 2002–03 में लगभग 75% और 2003–04 से लगभग 80% रहा।

B. एफ.आर.बी.एम. के बाद तथा विश्व रेशेसन के पूर्व अवधि

राजकोषीय समेकन तथा राजकोषीय असंतुलन दूर करने की दिशा में सरकार ने अनेक प्रयास किए पर इस दिशा में सबसे महत्वपूर्ण संवैधानिक कदम राजकोषीय उत्तरदायित्व एवं बजट प्रबंधन अधिनियम के क्रियान्वयन के लागू होने के साथ लिया गया। इसके द्वारा सरकार के बजेटरी व्यवहारों के आय तथा इस प्रकार सरकार द्वारा सृजित विभिन्न प्रकार के घाटों के ऊपर जो एक संवैधानिक ऊपरी सीमा निश्चित की गई उसका प्रभाव स्पष्ट रूप से रहा और इस अवधि में राजस्व घाटा जो 2003–04 में 4.4% था घटकर 2007–08 के बजट में 1.1 हो गया (एफआरबीएम की व्यवस्था के अनुसार इसे शून्य करने के लक्ष्य की दिशा में ठोस कदम) तथा राजकोषीय घाटा जो शुरू में लगभग 6% था। 2007–08 के अनुमान के अनुसार 2.7% रहा (जो 3% के एफ.आर.बी.एम लक्ष्य से नीचे था, और इतना नहीं राजकोषीय घाटा–राजस्व घाटा अनुपात जो 2003–04 में लगभग 80% था घटकर 2007–08 में 41.4 % हो गया।

C. अवमंदन के बाद की अवधि

वैश्विक वित्तीय मंदी तथा परिणामी आर्थिक अवमंदन प्रभाव को निरस्त करने के लिए सरकार ने विस्तारक राजकोषीय नीति का सहारा लिया जिसमें अनेक वित्तीय पैकेज दिए गए जिससे अर्थव्यवस्था में समग्र मांग में वृद्धि हो परिणामस्वरुप सरकार के सार्वजनिक राजस्व व्यय में तेजी से वृद्धि हुई और इसके परिणाम स्वरुप सभी घाटों में तेजी से वृद्धि हुई और 2008–09 में जीडीपी अनुपात में राजस्व घाटा 5.2% तथा राजकोषीय घाटा 6.4% हो गया तथा राजकोषीय घाटा–राजस्व घाटा अनुपात 74 हो गया। इस अवधि के अंतिम चरण में स्फीतिक दबाव की स्थिति बढी फलस्वरुप सरकार को संकोचक राजकोषीय नीति अपनानी पड़ी फलस्वरुप 2011–12 में केंद्रीय बजट अनुमान के अनुसार राजस्व घाटा 3.4% तथा राजकोषीय घाटा 5% होगा

वर्तमान स्थिति के अनुसार बजट 2024–25 के अनुसार सकल कर राजस्व 38.40 लाख करोड़ रुपये अनुमानित था, जिसमें निहित कर–जीडीपी अनुपात 11.8 प्रतिशत था। केंद्र की कुल गैर–ऋण प्राप्ति 32.07 लाख करोड़ रुपये अनुमानित थी। इसमें 25.83 लाख करोड़ रुपये का कर राजस्व (केंद्र को शुद्ध), 5.46 लाख करोड़ रुपये का गैर–कर राजस्व और 0.78 लाख करोड़ रुपये की विविध पूंजी प्राप्तियां शामिल थीं। प्राप्तियों और व्यय के इन अनुमानों के साथ, राजकोषीय घाटा 2024–25 के बजट अनुमान में 16.13 लाख करोड़ रुपये या जीडीपी का 4.9 प्रतिशत आंका गया था। वर्ष 2023–25 की पहली छमाही में राजकोषीय घाटा 4.75 लाख करोड़ रुपये या बजट अनुमान का लगभग 29.4 प्रतिशत रहने का अनुमान है।

केंद्रीय प्रत्यक्ष कर बोर्ड (सीबीडीटी) द्वारा जारी लेटेस्ट आंकड़ों के अनुसार, चालू वित्त वर्ष के दौरान 1 अप्रैल से 10 नवंबर तक भारत का शुद्ध प्रत्यक्ष कर संग्रह, जिसमें कॉर्पोरेट कर और व्यक्तिगत आयकर शामिल हैं, 15.4 प्रतिशत बढ़कर 12.1 लाख करोड़ रुपये हो गया। इसी तरह, बढ़ती आर्थिक गतिविधियों के कारण जीएसटी संग्रह में भी शानदार वृद्धि हुई है।

2025–26 में राजस्व घाटा जीडीपी के 1.5% पर लक्षित है। यह 2024–25 के संशोधित अनुमान 1.9% से कम है। 2025–26 में राजकोषीय घाटा जीडीपी के 4.4% पर लक्षित है जो 2024–25 में जीडीपी के 4.8% के संशोधित अनुमान से कम है।

राजकोषीय समेकन के लिए सरकार द्वारा उठाए गए कदम

1. सार्वजनिक व्यय का नियंत्रण तथा कटौती

राजकोषीय घाटे में कटौती के लिए सरकार ने 1991 में ही सार्वजनिक व्यय के नियंत्रण के नीति पर बल दिया जो राजकोषीय घाटे में कमी लाने का सबसे प्रभावी रास्ता माना जाता है। इस दिशा में सरकार ने जो इधर हाल के वर्षों में कदम उठाए हैं उनमे से प्रमुख है सार्वजनिक ऋण की ऊपरी सीमा का निर्धारण, ब्याज के दर में कटौती तथा ऐसी व्यवस्था जिससे औसत ब्याज दर तथा ब्याज दायित्व में कमी आये, व्यय सुधार आयोग (गीत कृष्णन कमेटी) का गठन जिसने अपनी रिपोर्ट सरकार को दे दी है जिसमें मुख्य रूप से सभी प्रकार की सब्सिडीज में कटौती तथा सरकारी कर्मचारियों में छंटनी के द्वारा प्रशासनिक व्यय में कटौती की सिफारिश की गई। पर अनेक प्रयासों के बावजूद भी सार्वजनिक व्यय, विशेष रूप से ब्याजदायित्व सब्सिडीज सुरक्षा व्यय तथा प्रशासनिक व्यय में कमी नहीं हो पायी, इधर हाल के वर्षों में सामाजिक क्षेत्र पर होने वाले व्ययों विशेष रूप से मनरेगा, एन.आर.एच.एम, भारत निर्माण आदि पर होने वाले व्ययों में तीव्र वृद्धि के कारण सार्वजनिक व्ययों का नियंत्रण नहीं हो सकता है।

2. आर्थिक संवृद्धि दर (जीडीपी में वृद्धि दर) तथा कर राजस्व में वृद्धि

राजकोषीय घाटा या किसी भी घाटा की मात्रा यह आकार में कमी सार्वजनिक व्यय में कमी तथा राजस्व में वृद्धि के द्वारा लाई जा सकती है। वैसे सरकार ने दोनों ही का प्रयोग घाटे में कमी लाने के लिए किया है। वैसे सरकार सार्वजनिक व्ययों की मात्रा में कमी लाने में सफल नहीं रही पर निश्चित रूप से राजस्व में तेजी से वृद्धि लाने में सफल रही। राजस्व में वृद्धि का प्रमुख कारण एक ओर कर आधार में विस्तार, कर के उच्चतम दर मे कमी, करारोपण तथा कर ढांचे में सुधार आदि रहा। इन सब की व्याख्या अलग से भारत में करारोपण में सुधार के अंतर्गत की गई है वहीं दूसरी ओर जीडीपी की ऊंची वृद्धि दर तथा जीडीपी आकार में वृद्धि सरकार के इन सब प्रयासों के कारण कर कि उत्प्लावता तथा कर की लोच में वृद्धि हुई है।

3. केंद्रीय सार्वजनिक उद्यमों की बजट पर आश्रितता की कमी

1991 के पूर्व सार्वजनिक उद्यमों की वित्तीय व्यवस्था बजट के द्वारा की जाती थी, परिणाम स्वरुप इन उद्यमों की विनियोग आवश्यकता तथा साथ ही हानि दोनों की ही व्यवस्था बजट से की जाती थी। राजकोषीय घाटे में कमी तथा उनकी कुशलता तथा प्रतियोगितात्मकता बढ़ाने के लिए 1991 के आर्थिक सुधारो के अंतर्गत निर्णय लिया गया कि सार्वजनिक उद्यमों की विनियोजन आवश्यकता की पूर्ति या तो इन उद्यमों द्वारा अपने आंतरिक साधनों द्वारा होगी या इसकी आपूर्ति इनके द्वारा पूंजी बाजार से प्राप्त पूंजी के द्वारा होगी। हानि पर काम करने वाली सार्वजनिक इकाइयों के संबंध में यह निर्णय लिया गया की हानी को पूरा करने की वित्तीय व्यवस्था 3 वर्षों तक रहेगी। ऐसी स्थिति में या तो हानि पर काम करने वाली इकाईयां आर्थिक दृष्टि से ठीक हो जाएगी और या तो बंद हो जाएगी। जिसका निर्णय (बोर्ड फॉर इंडस्ट्रियल एंड फाइनेंशियल ररिकंस्ट्रक्शन (BIFR) द्वारा होगा इसके परिणामस्वरुप सार्वजनिक उद्योगों के योजना व्यय की बजटरी सहायता में लगातार कमी आई है।

4. सार्वजनिक ऋण के मौद्रिकरण की सीमा

राजकोषीय घाटा को कम करने का यह अत्यंत महत्वपूर्ण कदम रहा। जिसको सरकार ने 1994–95 की बजट में लिया। 1994–95 के बजट के पूर्व सरकार बिना किसी सीमा के ऐडाहक ट्रेजरी बिल्स के आधार पर रिजर्व बैंक से उधार ले सकती थी, इस प्रकार बजेटरी घाट के मौद्रिकरण की कोई सीमा नहीं थी। 1994–95 के बजट में सीमा इसकी सीमा निर्धारित कर दी गई जिसके अनुसार सरकार ट्रेजरी बिल्स के आधार पर 6000 करोड रुपए से अधिक रिजर्व बैंक के एक समय उधार नहीं ले सकती और एक वर्ष में इसकी सीमा 9000 करोड रुपए से अधिक नहीं होगी। इस सीमा के अधिक होने पर रिजर्व बैंक उनकी नीलामी बिक्री कर सकता है। 1995–96 के लिए यह सीमा घटकर 5000 करोड़ कर दी गई। 1997–98 बजट की घोषणा के अनुसार ऐडिक्ट ट्रेजरी बिल्स को ही समाप्त कर दिया गया। और अब सरकार अपनी आवश्यकता की पूर्ति ब्याज दर पर ऋण के माध्यम से कर सकती है और या तो अर्थोपाय अग्रिमो(ले ंदक उमंदे ंकअंदबमे) से कर सकती है।

5. वैधानिक तरलता अनुपात (SLR)

वैधानिक तरलता अनुपात मूलतः सरकार के उधारी कार्यक्रम को मदद पहुंचाने का एक तरीका है। इसके माध्यम से सरकार एक प्रकार से बाजार ब्याज दर से कम ब्याज दर पर बैंकों से प्रति व्यक्तियों के आधार पर उधार प्राप्त करती है यह दर जितनी ही ऊंची होगी बैंकिंग क्षेत्र उतना ही अधिक सरकारी प्रतिभूतियों को लेने के लिए बाध्य होगा। राजकोषीय घाटे को कम करने की दृष्टि से आवश्यक है की वैधानिक तरलता अनुपात नीचा हो। 1991 से ही सरकार यह प्रयास कर रही है कि वैधानिक तरलता अनुपात को 38.5% से घटा कर 25% कर दिया जाए जिसकी सिफारिश नरसिम्हन समिति ने की थी।

28 अक्टूबर 1997 को घोषित साख नीति के अंतर्गत रिजर्व बैंक के एसएलआर के संबंध में बहु स्तरीय वैधानिक तरलता अनुपात प्रणाली को समाप्त कर दिया गया और अब सबके लिए 25% दर घोषित कि है। इस समय अगस्त 2011 से 25% तक कि दर बनी थी। वर्तमान में वैधानिक तरलता अनुपात 18% की दर पर बनी हुई है

6. सार्वजनिक क्षेत्र द्वारा विनिवेश

1991 की ही बजट से सार्वजनिक क्षेत्र द्वारा किए जाने वाले विनिवेश को राजकोषीय घाटा को कम करने के ही साधन के रूप में प्रयोग किया जा रहा है। उल्लेखनीय है कि 2000 तक विनिवेश से प्राप्ति का प्रयोग राजकोषीय घाटे में कमी लाने में किया जाता था पर 2000 – 2009–10 तक इसका प्रयोग राजकोषीय घाटे में कमी लाने में नहीं किया गया, पर 2010–11 से अब तक 13 में वित्त आयोग की सतुतीं परविनियोग से प्राप्ति को समेकन निधि में दिखाया जाता है

इसके अलावा नगदी प्रबंध और विदेशी रीड की पूर्वाद आएगी से राजकोषीय समेकन किया जा सकता है

राजकोषीय समेकन से संबंधित 15वें वित्त आयोग की सिफारिशें

केंद्र सरकार को राजकोषीय घाटे को वित्त वर्ष 2012 में 6.8: के मुकाबले 2025–26 तक अपने सकल घरेलू उत्पाद के 4% तक कम करना चाहिए।

राज्य सरकारों का राजकोषीय घाटा 2021–22 में सकल राज्य घरेलू उत्पाद का 4: अगले वर्ष 3.5% और अगले तीन वर्षों के लिए 3% होना चाहिए।

राज्य सरकारों के लिए उधार सीमा 2021–22 में सकल राज्य घरेलू उत्पाद का 4%, 2022–23 में 3.5% और 2023–24 से 2025–26 तक जीएसडीपी का 3: तय की जानी चाहिए।

राजकोषीय समेकन से आर्थिक स्थिरता और विकास किस प्रकार प्रभावित होता है?

मुद्रास्फीति नियंत्रण: FRBM अधिनियम, 2003 के तहत, सरकार की उधारी को कम करते हुए वित्तीय वर्ष 2018–19 में राजकोषीय घाटा GDP का 3–4% हो गया जो वित्तीय वर्ष 2013–14में में GDP का 4–5% था। अत्यधिक उधारी और सरकारी खर्च पर अंकुश लगाकर, राजकोषीय समेकन कीमतों को स्थिर रखने और मुद्रास्फीति को नियंत्रण में रखने में मदद करता है।

पूंजीगत व्यय में वृद्धि: कोविड–19 महामारी के दौरान, भारत ने MSME और विस्थापित व्यक्तियों जैसे क्षेत्रों पर वित्तीय राहत पर ध्यान केंद्रित किया, जबकि पूंजीगत व्यय को प्राथमिकता दी, जो वित्त वर्ष 2014–15 में सकल घरेलू उत्पाद के 1–6% से बढ़कर वित्त वर्ष 2023–24 में 3–2% हो गया। इससे सुभेद्य क्षेत्रों पर नकारात्मक आर्थिक प्रभाव को कम करने में मदद मिली और महत्त्वपूर्ण बुनियादी ढाँचे में सुधार हुआ जिससे दीर्घकालिक आर्थिक विकास सुनिश्चित हुआ।

राजस्व संग्रहणः कर प्रणाली के डिजिटलीकरण से कर संग्रह में अधिक दक्षता आई है, जिससे कर प्राप्तियाँ वित्त वर्ष 2014–15 में सकल घरेलू उत्पाद के 10% से बढ़कर वित्त वर्ष 2023–24 में 11–8% हो गई हैं। कर राजस्व में वृद्धि से सरकार की लोक सेवाओं में निवेश करने की क्षमता का वर्द्धन हुआ।

दीर्घकालिक संरचनात्मक सुधाररू भारत ने घरेलू विनिर्माण को बढ़ावा देने के लिये उत्पादन संबद्ध प्रोत्साहन (PLI) योजना शुरू की। इससे वैश्विक व्यापार व्यवधानों और भू–राजनीतिक तनावों के प्रभावों को कम करने में मदद मिली तथा वैश्विक अनिश्चितताओं के बावजूद स्थिर विकास सुनिश्चित हुआ।

क्षमता निर्माणः राजकोषीय घाटे में क्रमिक कमी के साथ, भारत निर्यात में अधिक प्रतिस्पर्द्धी बन गया, आयात पर इसकी निर्भरता कम हो गई तथा इसके व्यापार संतुलन में सुधार हुआ। जैसे–जैसे राजकोषीय घाटा कम हुआ और अर्थव्यवस्था अधिक स्थिर हुई।

सन्दर्भ

1. https://www.drishtiias.com/hindi/daily-updates/daily-news-analysis/india-s-fiscal-consolidation
2. https://www.sanskritiias.com/hindi/current-affairs/fiscal-consolidation
3. https://www.drishtiias.com/daily-updates/daily-news-analysis/india-s-fiscal-consolidation
4. https://pib.gov.in/PressReleasePage.aspx?PRID=2098354
5. https://hi.prsindia.org/budgets/parliament/
6. https://www.google.com/amp/s/hindi.business-standard.com/economy/budget-2025-26-fiscal-deficit-4-4-economy-will-get-speed-id-415320/amp

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