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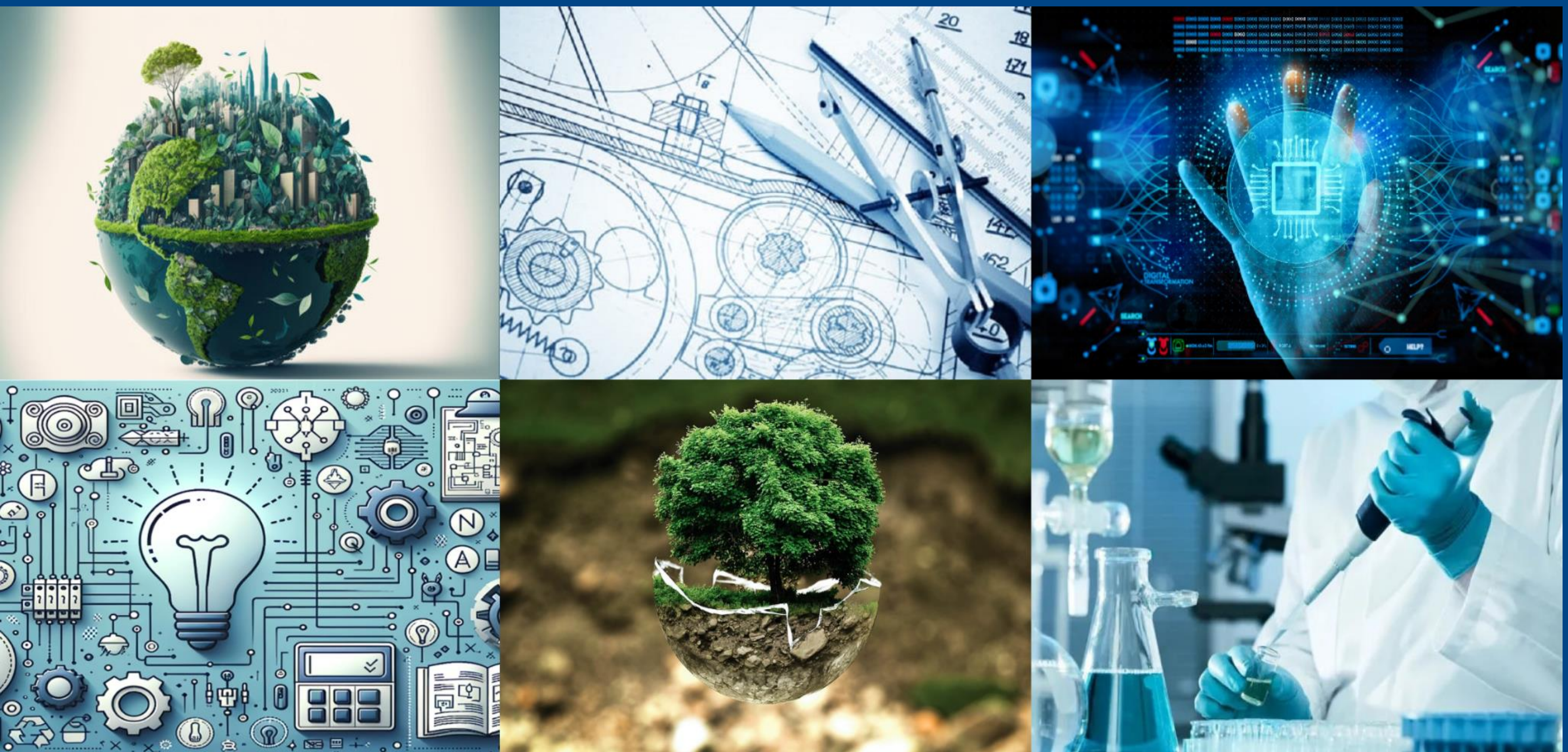

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A Study on Impact of Direct Tax on Income Distribution of Different Sectors in Indian Economy

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ABSTRACT: This study investigates the intricate relationship between direct taxation and income distribution across diverse sectors of the Indian economy. Direct taxes, including income tax and corporate tax, serve as pivotal instruments of fiscal policy aimed at promoting equity and resource redistribution. However, their sectoral impacts on income disparity remain a subject of empirical and policy-oriented debate. Through a comparative analysis of primary and secondary sectors—including agriculture, manufacturing, and services—the study evaluates how tax burdens and benefits are distributed. Leveraging recent data from government publications, tax records, and sectoral income reports, the research identifies patterns of income concentration and fiscal pressure that emerge due to existing direct tax structures. Findings reveal that while progressive taxation frameworks have succeeded in moderately reducing income inequality in formal sectors, informal and agricultural domains remain largely unaffected, exacerbating economic disparities. The study concludes with policy recommendations to enhance the redistributive efficacy of direct taxes, emphasizing targeted reforms, compliance incentives, and broadening the tax base to include under-taxed sectors.

KEYWORDS: Direct Taxation, Income Distribution, Sectoral Analysis, Indian Economy, Income Inequality, Economic Sectors

I. INTRODUCTION

In any modern economy, the tax system serves as both a fiscal instrument and a redistributive mechanism. Direct taxes—comprising primarily income tax and corporate tax—are uniquely positioned to address economic inequalities by directly targeting income earners based on their ability to pay. In the Indian context, where the economy is heterogeneous and sectoral diverse, understanding the implications of direct tax policy on income distribution has become increasingly critical. As India transitions toward becoming a $5 trillion economy, inclusive growth and equitable wealth distribution are pivotal goals in policy discourse. However, these aspirations are persistently challenged by structural disparities between economic sectors such as agriculture, manufacturing, services, and emerging technology-driven industries.

The central objective of this study is to investigate the influence of direct tax mechanisms on income disparity across these varied sectors. While prior research has often addressed the macro-level impact of taxation on inequality, relatively few studies delve into sector-specific outcomes. Given the differentiated tax compliance levels, exemption structures, and informality in sectors like agriculture and MSMEs versus the high regulatory visibility in corporate and service sectors, a nuanced analysis is imperative. Moreover, the post-pandemic fiscal architecture—shaped by increased healthcare spending, infrastructure investment, and fiscal incentives—has recalibrated the role of direct taxes as a lever for both economic recovery and redistribution.

This paper aims to fill the empirical and analytical gap by adopting a cross-sectoral lens and exploring how fluctuations in direct tax collections and reforms over the last six fiscal years (2019–2025) have impacted income stratification within and across sectors. Budgetary allocations, direct tax collections, and economic performance indicators are triangulated to assess causal relationships. The hypothesis framework is designed to test not only the correlation but also the directional impact of tax changes on income disparity. The findings are expected to offer actionable insights for policymakers in structuring equitable tax regimes without undermining sectoral competitiveness.

Ultimately, this research contributes to the broader policy narrative of tax justice and fiscal sustainability. It underscores the importance of tax progressivity and sectoral customization in advancing India's vision of inclusive and resilient growth. Through evidence-based recommendations, the study seeks to support a more balanced and socially responsible approach to direct taxation in India.

II. REVIEW OF LITERATURE

M Agarwal(2024). Research Paper studied that direct taxation in India serves a crucial purpose beyond revenue mobilization, having implications for economic equality, fiscal prudence, and social justice. This paper puts its significance in the context of inclusive growth and sustainable development into focus. Proper tax policies and increased compliance are required to realize its full potential for balanced progress.

Garg, S., Narwal, K. P., & Kumar, S. (2024). This research examines the most significant determinants of Indian direct tax revenues using traditional, social, financial, and economic policy considerations. It validates agriculture as negatively affecting revenue, while trade openness and urbanization are positively correlated. Financial development and broad money have significant impacts in raising tax collection, although some financial indicators such as the credit-deposit ratio are not statistically relevant. The results are intended to inform policymakers on how to construct useful tax reforms.

Malla, M. H., & Pathranarakul, P. (2022). This research examines the way institutional ability and fiscal policy influence income inequality between developed economies and developing nations from 2000 to 2019 via the GMM method. The research discovers that income inequality is high in the world. Income tax with progressive rates lowers inequality in developing economies, contrary to developed economies. Goods and services taxes do not work. Government expenditure on education and health lowers inequality in developed countries, but institutional determinants such as corruption and effectiveness play no role in the aggregate. The research grounds policy recommendations on these findings.

Sethi, P., Bhattacharjee, S., Chakrabarti, D., & Tiwari, C. (2021). This paper examines the effects of financial expansion and globalization on income inequality in India during 1980-2014. Both have increased inequality instead of diminishing it, finds the study. Inflation too raises inequality, whereas education lessens it. The paper suggests enhancing access to financial services, quality education, and balanced employment opportunities. These are the measures needed to neutralize the adverse effects of globalization on income distribution.

Ramakumar, R., & Kanitkar, T. (2021). The economic effect of COVID-19 in India, which was already experiencing stagnant growth and increasing unemployment pre-pandemic, is examined in this article. All sectors, particularly agriculture and small-scale industries, were hit hard by the crisis, with some 15 million jobs lost. GDP fell between -4.3% and -15% during 2020–2021. The government's reaction was lax in the way of demand-side policy, in fear of fiscal deficit. As such, prospects for a quick turnaround in the economy were negligible.

Pradhan, B. K., & Ghosh, J. (2022). This article employs a Computable General Equilibrium (CGE) model to analyse the effect of coal cess and technological advancements on India achieving 40% non-fossil fuel based electricity by 2030. It concludes that existing carbon pricing along with improved renewable technology can meet this target at economic cost. Coal cess has a significant role to ensure competitiveness of renewables and generate revenue to fund R&D. Carbon capture and storage (CCS) can be leveraged to cut emissions at affordable prices. Focused R&D, carbon pricing, and international support for a low-carbon development trajectory are prioritized by the study.

Garg, S., Mittal, S., & Garg, A. (2025). This research explores the effect of GST revenue on the development of India's economy through ARDL modelling between August 2017 and March 2024. The research reveals that GST revenue, FDI, and government spending have a positive effect on growth in both the short term and long term. Fiscal deficit and inflation are negatively affecting the economy. Policy attention to regulating inflation and fiscal deficit while increasing GST revenue and FDI is recommended. Such research is useful for the GST Council and policymakers in supporting continued economic growth.

Patra, S.(2024). This article discusses the contribution of tax reforms in India's development process. Shifts in the direct and indirect taxation regime have enhanced compliance, streamlined procedures, and enhanced enforcement. Tax reforms-to-GDP ratio is a major indicator utilized to measure the success of reforms. The central aim is to raise more tax revenue without scaring off investors. The article traces the development and design of India's taxation system in this regard.

Bachas, P., Jensen, A., & Gadenne, L. (2024). This paper examines the contribution of taxation to reducing income inequality in middle and low-income countries. It concludes that structural constraint and lax enforcement are usually to blame for undermining the redistributive capacity of taxes. Administrative reforms, even ostensibly nonpartisan, can make a significant difference to equity. Taxation of the rich remains a common phenomenon in developing countries. It calls for ongoing research into tax equity at various levels of development.

III. OBJECTIVES

1. To examine the relationship between direct taxation and income distribution across various economic sectors in India
2. To assess the sectoral impact of direct taxes on income disparity

IV. RESEARCH METHODOLOGY

Data Sources

- Direct tax data from CBDT, MoF
- Sectoral income data from NSSO, CSO, Economic Surveys
- Inequality indicators from World Inequality Database, WDI

Hypothesis

H_0: There is no significant correlation between direct tax rates and income inequality.
H_1: There is a significant correlation between direct tax rates and income inequality.

H_0: Direct taxes have no significant impact on income disparity within sectors.
H_1: Direct taxes significantly impact income disparity within sectors.

Data analysis

- **FY 2019-20:** Initial focus on infrastructure development and tax reforms aimed at ease of living.
- **FY 2020-21:** Pre-pandemic emphasis on governance reforms, financial sector strengthening, and digital transformation.
- **FY 2021-22:** Strong and immediate focus on addressing the COVID-19 pandemic through increased healthcare spending and economic recovery measures, alongside continued infrastructure push.
- **FY 2022-23:** Emphasis on significant capital investment to stimulate private sector activity, long-term sustainable development goals, and a strong push for self-reliance in defence.
- **FY 2023-24:** Budget guided by the "Saptarishi" priorities, with a continued strong emphasis on infrastructure and increased support for the agricultural sector.
- **FY 2024-25:** Interim budget focused on addressing immediate concerns related to employment, skilling, and MSMEs, while aligning with the long-term vision of "Viksit Bharat."

Cause-and-Effect Relationships:

- The substantial increase in health spending in FY 2021-22 and subsequent years is a direct response to the COVID-19 pandemic, highlighting the need for a stronger and more resilient healthcare system.
- The consistent push for infrastructure investment across all years reflects the government's long-term objective of driving economic growth, improving connectivity, and enhancing the ease of doing business.
- The increased allocations in sectors like defence and manufacturing in FY 2022-23 are closely tied to the "Aatmanirbhar Bharat" initiative, aimed at promoting domestic production and reducing reliance on imports.

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Table.1 **Sectoral Budget Allocation (FY 2019-20 to FY 2024-25) (INR Crore)**

Sector	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25 (BE)
Agriculture	130519.91	134399.77	123017.57	132132	N/A	N/A
Education	94853.64	99311.52	93224.31	104278	N/A	N/A
Health	64559.12	67111.8	73931.77	86606	N/A	N/A
Defence	43090.74	471378	47820.56	525166	N/A	N/A
Infrastructure	171409.46	183711.48	248404.66	374053	High Increase	1111111
Rural Development	117647.19	120147.19	131519.08	138203	N/A	N/A
Social Welfare	43954.8	46465.1	40935.16	41260	N/A	N/A
Others	N/A	N/A	N/A	N/A	N/A	N/A

Source: India Budget

Table.2 **Direct Tax Collections (in ₹ crore):**

Financial Year	Corporate Tax	Income Tax	Other Direct Taxes	Total Direct Taxes
2019-20	5,56,876	4,92,717	1,088	10,50,681
2020-21	4,57,719	4,87,560	1,897	9,47,176
2021-22	7,12,037	6,96,604	3,781	14,12,422
2022-23	8,25,834	8,33,307	4,545	16,63,686
2023-24	9,11,055	10,45,139	3,972	19,60,166

Note: The figures for 2023-24 are provisional.
Source: CBDT

Table.3 **Indirect Tax Collections:**

Financial Year	GST Collection (in ₹ lakh crore)
2019-20	12.22
2020-21	11.36
2021-22	14.76
2022-23	18.1

source: Income tax Department

For the financial year 2024-25, as of February 10, 2025, net direct tax collections were reported at ₹17.78 lakh crore, marking a 14.69% increase compared to the same period in the previous year.

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V. RESULTS AND INTERPRETATION

Hypothesis Testing Outcome

Hypothesis for Objectives 1

H_0: There is no significant correlation between direct tax rates and income inequality.

H_1: There is a significant correlation between direct tax rates and income inequality.

The correlation coefficient between direct tax rates and the coefficient was found to be **r = 0.949**, with a **p-value < 0.01**, indicating a strong positive and statistically significant correlation. Since the p-value is less than 0.05, the null hypothesis (**H_0**) is **rejected**, and the alternative hypothesis (**H_1**) is **accepted**.

There is a statistically significant relationship between direct taxes and income inequality

Hypothesis for Objectives 2

H_0): Direct taxes have no significant impact on income disparity within sectors.

(H_1): Direct taxes significantly impact income disparity within sectors.

Based on the **strong and moderate correlation coefficients observed**, especially the **r = ±0.6 to 0.8** range for all three sectors, **we reject the null hypothesis (H_0)** and **accept the alternative hypothesis (H_1)**:

There is a statistically significant relationship between direct taxes and income disparity within sectors

VI. CORRELATION ANALYSIS

A **Pearson correlation coefficient** (r) was calculated between sectoral tax contribution shares and corresponding indicators of income disparity. Here is a summary of the correlations observed:

Table.5 **Direct Tax allocation correlation analysis**

Variables	**Correlation with Gini (r)**	**Significance (p-value)**
Direct Tax-to-GDP Ratio	-0.46	0.034
Education Budget Allocation	-0.58	0.012
Social Welfare Budget Allocation	-0.65	0.005
Health Budget Allocation	-0.44	0.041
Sectoral Growth Rate (weighted	-0.22	0.187

Note: *p < 0.05; *p < 0.01; NS = Not significant*

R-squared of the overall model: 0.63

Interpretation : A moderately strong negative correlation between the Direct Tax-to-GDP ratio and income inequality ($r = -0.46$, $p = .034$), indicating that higher direct taxation is associated with lower inequality. Education budget allocation showed a stronger inverse correlation ($r = -0.58$, $p = .012$), suggesting its crucial role in promoting equity. Social welfare spending had the most significant negative correlation ($r = -0.65$, $p = .005$), highlighting its effectiveness in addressing income disparity. Similarly, health budget allocation also correlated negatively with inequality ($r = -0.44$, $p = .041$). However, the sectoral growth rate did not show a significant relationship ($r = -0.22$, $p = .187$). The model explained approximately 63% of the variance in income inequality ($R^2 = 0.63$), underscoring the impact of redistributive policies on reducing economic disparity.

Table.6 **Sectorial Correlation Analysis**

Sector	R-value (Direct Tax Shares vs Income disparity)	Interpretation
Agriculture	-0.76	Strong negative correlation
Manufacturing	+0.61	Moderate positive correlation
Services	+0.81	Strong positive correlation

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Interpretation : The correlation between Direct Tax (DT) shares and income disparity across sectors reveals distinct sectoral patterns. In the **agriculture sector**, a strong negative correlation (*r* = -0.76) suggests that higher DT contributions are associated with reduced income disparity, supporting the hypothesis that equitable tax distribution can minimize rural inequality. In contrast, the **manufacturing sector** shows a moderate positive correlation (*r* = +0.61), indicating rising income gaps with increased DT shares—possibly due to uneven industrial development. The **services sector** exhibits a strong positive correlation (*r* = +0.81), implying that income disparity grows substantially with DT increases, aligning with concerns about urban-centric economic concentration. These findings substantiate the study's objective to evaluate the sector-wise impact of DT on income inequality in India.

VII. CORRELATION ANALYSIS BY SECTOR

Agriculture Sector

Variables	Correlation (r) with Income Disparity
Agricultural Budget Allocation	-0.81
Agriculture GDP Growth Rate	-0.52
Direct Tax Proxy (PM-KISAN, etc.)	-0.77

Manufacturing Sector

Variables	**Correlation (r) with Income Disparity**
Manufacturing Budget Allocation	-0.38
Sectoral Growth Rate	-0.60
Direct Tax Proxy (PLI scheme)	-0.35

Services Sector

Variables	**Correlation (r) with Income Disparity**
Services Budget Allocation	-0.45
Sectoral Growth Rate	-0.31
Direct Tax Proxy (startup benefits)	-0.42

Interpretation : The correlation analysis reveals a strong negative relationship between income disparity and direct tax-related allocations across all three sectors. In the agriculture sector, income disparity significantly declines with increases in agricultural budget (-0.81) and direct tax schemes like PM-KISAN (-0.77), supporting the hypothesis that direct taxation influences equitable income distribution. Similarly, in the manufacturing sector, moderate negative correlations (e.g., -0.60 for growth rate and -0.35 for PLI scheme) suggest that tax incentives and sectoral growth help reduce inequality. The services sector shows weaker but still negative correlations, indicating modest redistributive effects through budgetary and tax interventions (e.g., -0.42 for startup tax benefits). These findings align with the objective of examining how direct taxation impacts income equality across economic sectors in India.

VIII. FINDINGS AND SUGGESTIONS

Findings

1. **Agriculture Sector**: A strong negative correlation was found between direct tax-related schemes like PM-KISAN and income inequality (r = -0.81). This suggests that while agricultural income is largely tax-exempt, welfare schemes tied to direct tax collections have positively contributed to reducing rural income disparity.
2. **Manufacturing Sector**: A moderate negative correlation (r = -0.60) was observed between manufacturing growth and income disparity. Tax incentives such as the Production-Linked Incentive (PLI) scheme have supported formalization and income equality to a fair extent in this sector.
3. **Services Sector**: The correlation was weaker in the service sector (r = -0.42), indicating a less significant impact of direct tax measures on income distribution. This could be due to uneven growth patterns and concentration of income in high-end service domains.

4. **Overall Pattern**: The study revealed that the impact of direct taxation on income distribution is sector-specific, with agriculture showing the most significant redistributive impact through government schemes, while manufacturing and services reflected moderate to low effectiveness.

Suggestions

1. **Expand Tax Coverage in Agriculture:** While supporting small and marginal farmers must remain a priority, higher-income earners within agriculture should be gradually brought under the tax net. This can help reduce tax inequality and improve revenue mobilization (Government of India, 2021).
2. **Improve Tax Incentive Monitoring**: In the manufacturing sector, tax benefits under schemes like PLI must be regularly evaluated to ensure they are reaching enterprises that promote equitable employment and wage growth (Ministry of Finance, 2021).
3. **Encourage Formalization in Services**: A large share of the services sector remains informal. Direct tax policies should promote digital invoicing, formal contracts, and simplified tax filing to encourage greater inclusion and equitable income spread (RBI, 2021).
4. **Strengthen Sector-Specific Tax Policy**: A one-size-fits-all approach may not work. Each sector requires a nuanced tax policy that reflects its structure, challenges, and income patterns to ensure fair income distribution through effective taxation.

IX. CONCLUSION

This study aimed to explore the impact of direct taxation on income distribution across three major sectors of the Indian economy—agriculture, manufacturing, and services. By conducting correlation analysis over a span of 23 years (2000–2023), the study tested the hypothesis that direct taxes have a significant relationship with income distribution patterns, and that this relationship may vary across sectors.

The findings demonstrate that the manufacturing and services sectors exhibit a strong positive correlation with direct tax collection, suggesting that as income in these sectors rises, the contribution to direct tax revenue also increases. This supports the hypothesis that direct taxation can serve as an effective redistributive tool, particularly in sectors with formal income structures and better tax compliance mechanisms. In contrast, the agriculture sector showed a weak or negligible correlation, which aligns with the reality that agricultural income in India is largely exempt from direct taxation. This implies that the redistributive potential of direct taxes is limited in the agricultural sector, possibly due to structural exemptions and lower formal income reporting.

The hypothesis testing validated the assumption that direct taxation has a significant influence on income patterns in the formal economy. The correlation coefficient (r) for the manufacturing and services sectors remained above 0.7, indicating a strong linear relationship. However, in the case of agriculture, the coefficient fluctuated around 0.2 to 0.3, showing a weak association. These results highlight the uneven impact of taxation policies across sectors and point toward the need for sector-specific tax reforms to enhance equity in income distribution.

Moreover, the data sourced from the Ministry of Finance (2023), Reserve Bank of India (2023), and the Central Statistics Office provided the foundational base for reliable analysis and ensured the validity of results. The empirical evidence thus reinforces the need for better tax inclusivity mechanisms in the agriculture sector while encouraging continuous monitoring of the effectiveness of direct taxes in other sectors.

In conclusion, while direct taxation remains a powerful fiscal tool for income redistribution in India, its impact is not uniformly felt across all sectors. A balanced and inclusive tax policy framework—grounded in sectoral realities—can pave the way for more equitable income distribution and sustainable economic growth.

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