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through the lens of J C Kumarappa**

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in India: Analysis of its trends and patterns**

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practises of self employed individuals**

GST updates

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Rethinking public finance in India through the lens of J C Kumarappa

Jos Chathukulam

Abstract

This paper argues that the public finance envisioned by J C Kumarappa needs to be seriously taken into consideration by the modern-day public finance experts and economists in India. Rethinking public finance is required if India needs to become Viksit Bharat by 2047 and the most sustainable way to do it is to adopt the Gandhi-Kumarappa economic model. The paper is largely based on desk research and it also employed a transhumanism framework, leveraging artificial intelligence (AI) to extrapolate Kumarappa's potential stance on goods and services tax (GST) based on his philosophical and economic writings on public finance. The paper begins with a detailed introduction that traces the Kumarappa model of public finance through his seminal works like 'Public Finance and Our Poverty', 'Economy of Permanence' and 'A Survey of Matar Taluka'. The paper is divided into three parts and the first part of the paper offers a comparative perspective on Kumarappa economics and modern-day public finance. The second part of the paper discusses the opinions of public finance experts and Gandhian scholars on Kumarappa Model of Public Finance. The third part of the paper looks into the Kumarappa Economy through the lens of Degrowth. It is followed by a discussion and conclusion.

Keywords: Kumarappa, Moral Economy, Gandhian Economy, Colonial Public Finance, Rethink Public Finance, Economy of Permanence, Degrowth.

1. Introduction

Joseph Chelladurai Kumarappa was a renowned Gandhian economist and a strong critique of colonial public finance. J C Kumarappa was born on January 4, 1892 in Thanjavur, Tamil Nadu, India. He was educated at Doveton School and Madras Christian College. He was a chartered accountant in Britain for some time. Kumarappa also earned a degree in Business Administration from Syracuse University and a Master's in Economics under E.R.A Seligman. In 1929, he met Mahatma Gandhi, who asked him to conduct an economic survey in Matar Taluka, Kheda district, Gujarat and this was later published with the title *A Survey of Matar Taluka* (1931). This Survey set the foundation for his seminal works including *Economy of Permanence*. Similarly, Kumarappa's PhD thesis titled *Public Finance and India's Poverty*, submitted to Columbia University, under the guidance of economist Seligman, is a pioneering academic work in Indian economic thought and Gandhian economics. In his thesis, Kumarappa critically examines how the British colonial public finance system contributed to India's poverty. His PhD thesis highlighted how British rulers' revenue collection, taxation and spending priorities were formulated to support imperial interests rather than Indian welfare. The PhD thesis laid the foundation for the moral-economic framework in his notable works. He argued that the Britishers designed public finance to drain India's resources, not to serve Indian development, the core argument he reiterates in another seminal work, *Public Finance and Our Poverty: The Contribution of Public Finance to the Present Economic State of India (from here onwards, Public Finance and Our Poverty)*.

Kumarappa's interpretation of public finance is deeply ethical and metaphorical unlike conventional modern economics. For Kumarappa, public finance was a mirror of the moral character of a nation and not just about budgets, taxation and expenditure. He used metaphors to express how public finance reflects and shapes the trajectory of a nation. In *Public Finance and Our Poverty*, Kumarappa uses biological metaphors like Parasite Economy, Predatory Economy to classify the typology of economies.

He was the only Gandhian economist on the pre-Independent India's National Planning Committee and after Independence, Kumarappa chaired the Congress Agrarian Reforms Committee and authored the Kumarappa Report on Agriculture (Thangaraj, 2018). He also played an instrumental role in All India Village Industries Association and served as the editor of *Young India* during the Salt Satyagraha (1930-31). Eminent historian Ramachandra Guha calls Kumarappa as the first Gandhian environmentalist and portrays him as a Green Gandhian who developed environmental ethics in realm of social ecology and Eco socialism (Guha, 1994). Through his seminal works, including *Public Finance and Our Poverty* and *Economy of Permanence*, Kumarappa advocated people - centered (ethical) economics grounded in economic decentralization, village self-sufficiency and sustainable development. In *Public Finance and Our Poverty*, Kumarappa argued that the mismanagement of public

finance during British rule led to structural poverty in India. Kumarappa called the British model of public finance (taxation and spending policies were designed to extract surplus from Indian villages to finance the colonial administration and imperialistic policies) as a tool of exploitation of the masses and looting India's resources. For instance, the regressive land taxes and salt monopoly impoverished the poor peasants, exorbitant expenditure on defense (army and administration) and minimal attention to rural development, health and education. India's share in the global economy was around 23 per cent when the British arrived in the country in 1700; by 1947, when they left India, it fell below 4 per cent (Tharoor, 2015, Tharoor, 2016). Prior, to the arrival of the British, India was a leading manufacturer of textiles, steel and shipbuilding. However, the colonial administrators dismantled indigenous industries through tariffs and bans. India exported raw materials, including cotton, indigo and opium while importing expensive goods from Britain.

The British also looted wealth in terms of gold, diamonds and artefacts and natural resources. According to Kumarappa, the British East India Company was a profit-making enterprise that ruthlessly extracted wealth from its colonies, including India. Britain also imposed unjust trade system wherein India became a market for British goods and a rich source of raw materials and monopolized trade routes. India became a colonial economy engineered to sustain the Imperial government and its policies. In short, the British rule left a painful legacy of poverty and underdevelopment to the Independent India, from which the country is yet to be liberated/resuscitated.

For Kumarappa, public finance was not merely about balancing accounts and stimulating Gross Domestic Product (GDP), but about self-sufficiency, sustainability, rural-centric budgeting rooted in simplicity. He was against the technocratic and bureaucratic, growth obsessed policy making. Kumarappa championed for ecological sensitive public finance and laid the moral foundation for just and sustainable budgeting in 21st century India. Kumarappa, being an ardent follower of Mahatma Gandhi, advocated for fiscal decentralization through Gram Swaraj and redirecting revenue to prioritize local needs including construction of schools, tanks, and wells, affordable and accessible healthcare and other basic necessities. Kumarappa model of public finance focuses on development from the grassroots, where budgeting begins with the last person in the last village (Kumarappa, 1931). In *Public Finance and Our Poverty*, Kumarappa argued that British taxation and spending policies were designed to extract surplus from Indian villages to finance imperial administration and wars.

In Public Finance and Our Poverty, Kumarappa describes the concept of public finance as more than just revenue and expenditure. Throughout the book, he emphasizes the ethical aspects of finance; particularly how money raised and spent reflects the moral values and priorities of a government. Kumarappa opined that "*what we tax and what we spend on are reflections of the character of our State*," (Kumarappa, 1930). For Kumarappa, public finance is more of a public service that serves the common good.

He criticizes that the colonial rule used public finance as a means of exploitation that primarily served British interests. Kumarappa further points out that t *"the public finance of British India was not an instrument of welfare, but a weapon of plunder,"* (Kumarappa, 1930). He cites the example of railways, *"the railway was built not to unite India, but to carry raw materials to the ports and troops to crush dissent."* (Kumarappa, 1930).

Instead of Western economic models that justify inequalities, Kumarappa advocated indigenous models like Gandhian vision of economic decentralization. Kumarappa proposed progressive taxation and ethical revenue collection with fairness and social justice. In his work *Public Finance and Our Poverty*, Kumarappa exposes the priorities of colonial administration, particularly mismatch between sources of revenue (collected mostly from poor people) and expenditure (for colonial administration and military). Kumarappa opined that poverty in India is not a natural phenomenon but the result of deliberate and flawed policy choices. Kumarappa remarked, *"to spend on armaments while millions go without food is a betrayal of civilization,"* (Kumarappa, 1930). He stated that "a nation's poverty is not always due to lack of wealth, but often due to perverted priorities, (Kumarappa, 1930). Kumarappa's emphasis on ethical governance and bottom-up development aligns with the Gandhian economic framework.

Kumarappa envisioned a national budget that gives due emphasis to rural development, education, healthcare and decentralization (self-reliant communities). Democratization of financial planning was the core feature of Kumarappa model of public finance (moral budgeting) in which resource allocation is based on the social needs of the citizens. For Kumarappa, an ideal national budget should be participatory in nature and locally informed. For Kumarappa, *"Budgets are not merely documents of income; they are moral documents,"* (Kumarappa, 1930). Kumarappa further argued that *"a budget is the mirror of a nation's soul; if the soul is dark, the budget will reflect it,"* (Kumarappa, 1930). In the book *Public Finance and Our Poverty*, Kumarappa offers a roadmap for a just and ideal financial system rooted in decentralized planning, rural industrialization, ethics and sustainability for India. A public finance that is people centric and ecologically balanced, more in line with Gandhi's concept of Swaraj is the foundation of Kumarappa model of public finance.

Kumarappa's *A Survey of Matar Taluka* (1931) offers an in depth yet systemic analysis of life in 54 villages in Gujarat's Kaira (Matar) taluka. This Survey offers a detailed qualitative data (empirical data and findings) on land holding patterns, crop yields, irrigation facilities, debt, and income vs expenditure at both village and household levels. The Survey of Matar Taluka offers a glimpse into the land revenue and debt analysis of the selected villages and traced the agricultural distress to seasonal crop failures, limited irrigation facilities, and excessive taxation. Kumarappa points out that the emergence of cooperatives and government banks led to the decline of traditional moneylenders. The Survey, primarily concentrated on economic aspects

laid the groundwork for Kumarappa's advocacy of village industries, self-reliant economy and sustainable development. To capture the real state of public finance, Kumarappa undertook extensive field surveys and empirical studies as in the case of Matar Taluka, Gujarat and emphasized ethical, participatory and village-centric planning. In 1936, Kumarappa served as the Financial Advisor to the *Bihar Central Earthquake Relief Committee*, overseeing the disbursement of funds and ensuring transparency and accountability in the use of donations (Lindley, 2007). Kumarappa, despite being a close associate of Mahatma Gandhi, refused to approve a bill for Gandhi's expenses while working with the Bihar Central Relief Committee, following the devastating Bihar earthquake (Annamalai, 2017). The bill was not approved as Gandhi's expenses exceeded the per diem limit set by the Relief Committee. This incident shows Kumarappa's strict adherence to financial rules, even with his mentor and guru Gandhi, and it also stands as a testimony to his commitment to ethical and transparent financial and accounting practices (Annamalai, 2017). The present-day public finance experts are products of the 'textbook view school' (rely heavily on secondary data and statistics) and they should sooner or later adopt the 'field-view' and participatory approach of Kumarappa in studying public finance.

Part I - Kumarappa's public finance model Vs modern public finance in India

The Kumarappa framework of public finance is founded on the principles of simple living, decentralized economic empowerment and planning rooted in ecological harmony. The modern public finance is growth-focused, globalized, consumption-driven and prioritizes extractivism by simultaneously placing sustainable policies that does not interfere with their growth and development targets. Modern public finance treats economics as a technical discipline while Kumarappa model aligns with the Gandhian morals, concepts and ethics (more on a spiritual perspective). In Kumarappa approach, state acts as a facilitator of rural welfare, equity and self-reliance, while modern public finance plays a mixed role from a minimal state (in the neoliberal perspective) to welfare state (Keynesian economics). Kumarappa would likely criticize the GDP-centric, corporate -led economic model as his vision places service to the poor through empowerment of village economies as the first and foremost duty of public finance. Kumarappa dismissed GDP as a measure of true well-being.

Kumarappa might argue that the large allocations for defence, infrastructure and subsidies to big industries in the country come at the cost of rural development. In terms of revenue collection, Kumarappa favoured progressive taxation and urged to avoid indirect taxes that burden the poor. While modern public finance accepts the progressive income tax, the introduction of GST and other indirect taxes in India, which are regressive in nature, will negatively affect the poor and small producers. Kumarappa has aptly pointed out that *"no public finance system can be just if it perpetuates the poverty of the many for the luxury of the few..... a finance system that does not reduce poverty is itself bankrupt - morally, if not fiscally,"* (Kumarappa,

1930). Meanwhile, from a transhumanist perspective, Kumarappa would likely support some aspects of the GST including efforts to bring businesses into formal economy provided that it does not come at the cost of environmental degradation and social inequality. However, Kumarappa would likely exercise caution regarding the excessive centralization within the GST framework that would prove harmful to local governments, local economies and village-level industries¹.

Modern economists and public finance experts in India have also expressed missed opinions concerns regarding the implementation of the GST. There has been considerable criticism that states have become mere agents of the GST council and their capacity to design tax policy for their own development needs is sidelined. Public finance expert M Govinda Rao, former member, 14th Finance Commission, calls for the inclusion of fuel, power and real estate in the ambit of the GST (The Hindu, November 12, 2021). Noted economist Prabhat Patnaik observed that indirect taxes like GST is a fiscal injustice if the poor have to pay more than the rich as a share of income (Patnaik, 2017). Y V Reddy, former Governor, Reserve Bank of India (RBI) that the GST mechanism fails to command the state's trust and a trust deficit has emerged within the states regarding the administration of the GST (The New Indian Express, April 4, 2019).

Kumarappa would oppose the growing public debt and debt financing as it can pose risks and challenges, if the borrowed funds are not directed towards the benefit of rural livelihoods and productive investments. He might support progressive taxation including wealth taxes on large corporations and landowners. In India, the tax-to-GDP ratio remains low (11%), effectively limiting wealth redistribution. The tax-to-GDP ratio measures the total tax amount earned by a government against its annual gross domestic product (Panigrahi, 2024). The low tax-to GDP ratio in modern public finance reflects a narrow tax base due to high inequality, concentration of wealth and poor compliance by elites. It also shows limited fiscal capacity to invest in public goods and welfare.

Like Kumarappa, Malcolm S Adiseshiah, a distinguished Indian economist often criticized the increasing share in defence expenditure in India's budgets at the cost of human development. He advocated development-oriented budgets. According to Adiseshiah, public expenditure must reflect national development priorities - not elite consumption (Adiseshiah, 1970, Adiseshiah, 1985). He pointed out that India's budgetary choices reflect misplaced priorities (Adiseshiah, 1970). Adiseshiah strongly believed in progressive taxation and emphasized that direct taxes, including income and wealth must play a greater role than indirect taxes. He opined that tax policy in India should correct inequalities and not deepen them (Adiseshiah, 1988).

Renowned public finance experts like M J K Thavaraj and G Thimmaiah have noted that India's tax system as regressive in practice, despite being progressive in design.

Thavaraj observed that Indian tax structure fails to serve the redistributive objectives of public finance (Thavaraj, 1975). It has been argued that overreliance on indirect taxes can burden the poor more than the affluent. Thavaraj also noted that Indian budgets remained largely incremental and input-based, not outcome-based. He also observed that budgeting priorities has shifted away from public capital formation to consumption and transfers (Thavaraj, 1975, Thavaraj, 1978).

Thimmaiah has raised concerns regarding the inefficient public expenditure, particularly the rising share of non-developmental expenditure (Thimmaiah, 1979). Thimmaiah noted that public expenditure has often expanded without commensurate social returns with low outcomes in rural development and education. He also cautioned against fiscal deficit, particularly regarding fiscal deficits and public debt as persistent borrowing to meet revenue deficits can eventually led to a public debt trap (Thimmaiah, 1979). Thavaraj and Thimmaiah noted the lack of transparency, public participation and performance auditing in Indian budgetary process. The concerns raised by Thimmaiah and Thavaraj can be seen in Kumarappa's discourses.

When it comes to public expenditure priorities, Kumarappa would call for greater spending on rural development, health, agriculture, and education. The modern public finance system still prioritizes defence, infrastructure, welfare schemes and subsidies. Defence remains a major budget head in majority of the Union Budgets presented in India. Kumarappa would likely support schemes like Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Swachh Bharat Abhiyan (SBM), Pradhan Mantri Garib Kalyan Yojana (PMGKY), Galvanizing Organic Bio- Agro Resources Dhan (GOBAR-Dhan) as these programmes focus on rural upliftment and ensuring sustainable livelihoods to the village people.

Kumarappa's economic framework stresses village-level planning and budgeting, while fiscal federalism exists in Indian Constitution, the real power remains centralized and local governments remain underfunded, with actual devolution of funds, functions and functionaries yet to be materialized. Kumarappa's ideas has echoed in Panchayati Raj Institutions (73rd Constitutional Amendment Act) and Finance Commission grants to local governments. However, decentralized economic planning framework in its true sense (as proposed by Kumarappa) is missing in the Indian context as funding and autonomy remain weak and the element of empowered village planning is not yet fully realized.

The modern public finance thrives on extractivism policies while Kumarappa calls for degrowth approach rooted in ethics, morality and spirituality, which is largely absent in the technocratic policy making of today. Kumarappa's vision of an economic framework rooted in ethics, equity, decentralization, and sustainability offers a counternarrative to the dominant growth at any cost (paradigm). Modern public finance gives more emphasis to efficiency; Kumarappa emphasizes justice,

decentralization and sustainable development. As India grapples with rising inequality, poverty, climate change and other crises, Kumarappa's vision and ideas have the potential to inspire a moral and just rethinking of development and budgeting.

Part II: Public finance experts and gandhian scholars on kumarappa model of public finance

V M Govindu and Deepak Malaghan in *Building a Creative Freedom: J C Kumarappa and His Economic Philosophy*, argue that Kumarappa offered a foundational alternative to modern macroeconomics and Nehru model of public finance. They further argue that Kumarappa as a pioneer of ecological public finance, emphasizing local self-sufficiency and moral foundations of taxation and finance (Govindu and Malghan, 2005).

Mark Lindley in *J C Kumarappa: Mahatma Gandhi's Economist*, presents a comprehensive account of how Kumarappa played an instrumental role in shaping Gandhian economic philosophy. Lindley argues that Kumarappa advocated public finance as a moral act, budgets as ethical duty (Dharma) rather than economic might (Lindley, 2007). Lindley further argues that Kumarappa's approach contrasts with modern capitalist public finance systems, especially in areas like defence and military spending, land taxation and social welfare

B. Zachariah in *Developing India: An Intellectual and Social History, 1930-1950*, argues that Kumarappa attempted an economic decolonization by incorporating village republics, cooperative living and decentralized public finance (Zachariah, 2005). Solomon Victus in his work *Religion and Eco-Economics of J C Kumarappa* argued that Kumarappa's Christian background and Gandhian spiritual ethics shaped his views on economic justice, non-violence in taxation and environmental sustainability. Victus also points out that Kumarappa's focus on eco-theology align with faith, ethics in public finance paradigm (Victus, 2018).

The Economy of Permanence proposed by J C Kumarappa concentrates on a natural order that supports the development of a society that coexists with nature, focusing on using renewable resources and sustainable methods (Chathukulam et al., 2018). Kumarappa's Economy of Permanence and Deen Dayal Upadhyaya's Integral Humanism framework can be used for achieving integral development (Upadhyaya, 1965), social order and a new Upanishad of life, thereby generating new horizons of social theorizing, social transformation and planetary realizations (Chathukulam et al., 2018, Chathukulam et al., 2021).

Part III- Kumarappa through the lens of degrowth perspective

Parallels can be seen between Tim Jackson's *Prosperity Without Growth and Kumarappa's Economy of Permanence* as both rejects GDP as the sole indicator of progress and development (Kumarappa, 1931, Jackson, 2009). While Kumarappa critiques colonial exploitation and industrialism Jackson critiques consumer

capitalism and its ecological impact. Kumarappa draws from Gandhian principles of non-violence, Christian service ethics and village self-reliance. Jackson emphasizes social justice, environmental ethics and well-being economics and a Gandhi-Kumarappa influence strongly resonating in his ideological perspectives.

Jason Hickel's Less is More: How Degrowth Will Save the World offers a powerful critique of capitalism and colonialism and proposes an economy grounded in ecological balance, justice and moral values. Kumarappa also discusses more or less these aspects in the backdrop of colonialism and mismanagement of public finance by the British in India.

Kohei Saito's Slow Down: How Degrowth Communism can Save the Earth shows that both Saito and Kumarappa (Economy of Permanence) share similar ideas on ethical economics, moral economy as well as ecologically sustainable development. While Kumarappa argues colonial public finance is extraction of imperial growth, Saito connects capitalism's origin and expansion to imperial extraction and exploitation. Kumarappa advocates for an *Economy of Permanence* based on village industries and non-violence, while Saito proposes degrowth communism, collective ownership, reduced working hours and eco-social balance (Saito, 2024).

Social embeddedness of economic life is a common theme in Karl Polanyi's *The Great Transformation* (1944) and Kumarappa's seminal works, particularly *Public Finance and Our Poverty and Economy of Permanence*. Ethics is also a common factor in Polanyi and Kumarappa, as in the case with social justice. In other words, Kumarappa's *Economy of Permanence* resonates well with Polanyi's vision of social re-embedding of the economy (Polanyi, 1944). Polanyi and Kumarappa advocated for sustainable development and human-centered economies. Kumarappa's ideas are more relevant than ever in today's world, particularly in the wake of the climate crisis and rural distress stemming from socio-economic inequalities (Bandhu, 2018). Kumarappa was a pioneer of ecological economics. Kumarappa's ideas and thoughts are closely aligned with degrowth and sustainable development theories in today's world.

The critiques of global economic systems and consumption patterns presented by Kohei Saito, Ulrich Brand, and Markus Wissen converge on the notion that the affluent lifestyles characteristic of the Global North are predicated upon the exploitation of natural resources and labor from the Global South. This understanding is central to Brand and Wissen's (2021) concept of the "Imperial Mode of Living," which posits that the resource-intensive and ecologically unsustainable lifestyles of people in the Global North are inextricably linked to the extraction of energy and natural resources from the Global South.

In a similar vein, Kumarappa's work on Gandhian economics offers a prescient critique of Western-style development and consumption patterns. Kumarappa's emphasis on decentralization, self-sufficiency, and environmental sustainability resonates with the critiques of Brand, Wissen, and Saito, highlighting the need for a more equitable and

ecologically conscious approach to economic development. By examining the intersections between these thinkers' ideas, we can better understand the complex relationships between global economic systems, consumption patterns, and ecological sustainability. This analysis underscores the importance of rethinking our assumptions about economic growth, development, and the natural world, and highlights the need for more nuanced and equitable approaches to addressing the challenges of the 21st century.

Though Kumarappa doesn't use terms like 'extractivism' and neo-extractivism, his writings reflect the exploitation of natural resources for greed (Chathukulam and Joseph, 2024, Chathukulam and Joseph, 2023). Here is an excerpt from Kumarappa's *Why the Village Movement (1936)*: "*Mines and quarries are the treasure trove of the people. Unlike the forests, these are likely to be exhausted by exploitation. Hence great care must be taken to make the best use of thorn. They represent potential employment for the people. When ores are sent out of the country, the heritage of the people of the land is being sold out. It is the birth right of the people to work on the ores and produce finished articles. Today, in India, most of the ores are being exported. We are, therefore, not only losing the opportunities of employment for the people but impoverishing the land. Minerals, like other raw materials, have to be worked into consumable articles and only after that can the commerce part of the transaction commence. Any Government that countenances of a foreign trade in the raw materials of a country is doing a disservice to the land,*" (Kumarappa, 1936, p.111).

Alberto Acosta argues that extractivism was an instrumental mechanism for colonial and neo colonial plunder and appropriation. According to Accosta, "*This extractivism which has appeared in different guises over time, was forged in the exploitation of the raw materials essential for the industrial development and prosperity of the Global North..... Extractivism has been a constant in the economic, social and political life of many countries in the Global South,*" (Acosta, 2013).

Kumarappa is also viewed as a Christian - Gandhian Socialist, who sought an economic model rooted in nature and justice- the *Economy of Permanence*, sustainable, decentralized and morally sounds (Moolakkattu, 2022). Gandhi, Kumarappa and E.F. Schumacher, adhere to the separation of the economy of permanence from economy of violence (Nair and Moolakkattu, 2017). Schumacher's *Small is Beautiful and Kumarappa's Economy of Permanence*, share common goals, including an ethical, sustainable and human-centered economy (Nair and Moolakkattu, 2017).

The 2011 Western Ghats Ecology Expert Panel Report (WGEP), also known as the Gadgil report, envisions an inclusive, democratic and decentralized approach to environmental governance and this is in line with Gandhi and Kumarappa's vision of village republics (Nair and Moolakkattu, 2017).

While V K R V Rao appreciated the moral -ethical concern and rural focus of the

Kumarappa-Gandhi economic paradigm, particularly in his work *Gandhian Alternative to Western Socialism* (1970), he expressed skepticism towards heavily decentralized Gandhian economics and its practicality (Rao, 1970). Though Rao has not explicitly criticized Kumarappa, Rao's strong advocacy for industrial planning, public-sector growth and capital-intensive modernization contrasts with Kumarappa's village - centric ethical economic framework. While Rao underscored that values and ethics should be integrated within economic realism, his fundamental support was for industrial and capital-based models, as is evident from Rao's *India's National Income 1950-1980* and other prominent works.

Kumarappa's economic paradigm emerged from the local realities and experiences of the people. This understanding helped him challenge the colonial and capitalist economic structures with the support of a Gandhian framework (Gireesan, 2018). Public finance experts in India should revisit the ideas propounded by Kumarappa to address the climate change crisis, rampant social and economic inequality and underdevelopment in rural areas (Gireesan, 2018). Kumarappa's economy of permanence offers a moral and ecological foundation for public finance and policy making in the present-day times. Shivanand Shettar in his paper titled *J C Kumarappa: The Educational and Cultural Ambassador of Gandhian Model of Development*, describes Kumarappa as an ambassador of Gandhian economic model, stressing education and culture (Shettar, 2018).

P. J. Thomas, a celebrated economist in British India and Independent India, shares thematic similarities with Kumarappa's vision on decentralized rural planning, public finance, cooperatives and focus on the rural poor (Thomas, 2021). John Moolakkattu, in his book titled *J C Kumarappa*, argues that while the contributions of Gandhi and E M S Namboodiripadu in decentralization, were duly acknowledged in Kerala's People' Plan Campaign (PPC), which began in the mid-90s to spearhead democratic decentralization, Kumarappa's efforts in this realm especially in strengthening village economy was pushed to the oblivion (Moolakkattu, 2022). This is mainly because Kumarappa remains largely absent from the popular culture. While there are biopics and documentaries on the life and times of Gandhi, Nehru, Patel and Ambedkar, the same cannot be said about Kumarappa. He still remains the forgotten Gandhian economist. Meanwhile, A. M. Jose² comments that Kumarappa's ideas and themes have been discussed in Bollywood films like *Lagaan* (colonial taxation and rural resilience), *Swades* (decentralization, self-reliance), *Peepli Live* (criticizes apathy of modern economics to rural poor) and *Jai Bhim* (structural injustice and poverty - a core concern of Kumarappa).

Kumarappa's contributions are ignored in the academic circles, particularly Gandhian studies and mainstream economic studies, within India and abroad. For instance, young professors with PhDs in economics, working in premier policy research and academic institutes in India, were found to be ignorant about Kumarappa and his

economic philosophy. As part of National Education Policy (2020), Indian Knowledge System (IKS) is given due importance and Indian Economic Thought is major part of the curriculum and syllabi. The academic professionals in charge of designing core papers and curricula failed to incorporate Kumarappa and when asked about the reason for not incorporating Kumarappa, the academicians replied that they had not even heard about Kumarappa's *Economy of Permanence*, let alone Kumarappa. Even in universities that offer Gandhian Studies, there is not even one core paper on Kumarappa, as in the case of Ambedkar University. It doesn't stop with Kumarappa alone, books of renowned Gandhian scholars like Romesh K Diwan, Mark Lutz, Amlan Dutta, Mark Lindley, Narendar Pani, J.D Sethi, B.N. Ghosh, Amritananda Das also find no mention in the course curricula or the books recommended to students for further reading. Diwan and Lutz jointly published *Essays in Gandhian Economics* (1987), Diwan's *Gandhian Economics: Enoughness as Real Wealth* (1979), J. D. Sethi's *Trusteeship: The Gandhian Alternative* (1986), Amlan Dutta's *The Gandhian Way* (1986), Mark Lindley's *Gandhi on Health* (2019), B. N. Ghosh's *Beyond Gandhian Economics: Towards a Creative Deconstruction* (2013), Narendar Pani's *Inclusive Economics: Gandhian Method and Contemporary Policy* (2001), Amritananda Das's *Foundation of Gandhian Economics* (1979) are not mentioned in the recommended readings nor the core papers.

Gandhi himself overshadows Kumarappa's contribution in Gandhian economics. Kumarappa is often treated as a footnote in Gandhian and economic studies. Mark Lindley, in the introductory chapter of his book titled *J C Kumarappa: Gandhi's Economist* wrote: "Two experts advised me not to call Kumarappa "Gandhi's Economist." An economics professor in Kerala told me in 1988 that Kumarappa was "good man but not an economist," whereas an American-trained economics professor active in Hungary and Turkey told me, after reading a draft of his book in 2003, that Kumarappa was too important an economic thinker to be tagged a mere Gandhian," (Lindley, 2007). Kumarappa's contribution to ethical economy is not treated as separate and specialized discipline; it is considered an appendage of Gandhian economics.

Discussion and conclusion

Despite its significance, public finance, particularly the quality of public expenditure, has largely been overlooked by policymakers and economists in India (Chathukulam, 2024, Karnam, 2022). At this juncture, Kumarappa offers an empirical understanding of historical trends and composition of public expenditure in India; the political economy of spending decisions and best practices that can guide India's course-correction process (Chathukulam, 2024). Kumarappa is also credited with offering an empirical understanding of public finance or a 'field view' of the public finance scenario in India whereas public finance experts and policymakers of today are largely relying on secondary and tertiary inputs to formulate policies, theories and interpretations. As a result, most people handling public finance as a discipline and profession are out

of touch with the ground realities as they interpret things through 'textbook view' rather than a 'field view'. Gandhi-Kumarappa framework calls for civilizational reorientation - not just reformist adjustments to growth-centered economics (Nadkarni, 2018). An ecological, ethical and sustainable paradigm is what Kumarappa offers through his *Economy of Permanence* (Nadkarni, 2018).

Kumarappa's moral economic development typology includes Parasitic Economy (Exploitative), Predatory Economy, Enterprise Economy, Gregarious Economy (like a honeybee colony dedicated to mutual welfare) and Seva Economy (service-oriented). The modern-day public finance, including global public finance, falls under the category of parasitic and predatory economy; in some aspects; it qualifies as enterprise economy. While Kumarappa has made incredible contribution towards strengthening the public finance mechanism in India, there are only a few takers. Even public finance experts who write extensively on the need to adopt alternative development have failed to incorporate the Gandhi- Kumarappa economic model as a viable model in reshaping the public finances (Ray, 2024). As the countries across the globe are in the race to achieve sustainable development goals by 2030, India can secure a far more edge over other countries if it can revisit the Gandhi-Kumarappa economic worldview.

While embracing the Gandhi-Kumarappa framework in its entirety may seem impossible, alternative models that are rooted in social solidarity economies can be adopted as a viable option in this regard. India needs economists and public finance experts who can see through the eyes of the poor and marginalized sections of society. As Kumarappa rightly points out in the Introduction of *Public Finance and Our Poverty*, "*Indeed, when public finance is the handmaiden of public-spirited and farsighted statesmen, it could be the making of a powerful nation, but when mishandled, it could also be the ruination of a flourishing people. Like all other powerful instruments, this science is capable of being used for good, or ill, and therefore, it should be entrusted only to prove friends,*" (Kumarappa, 1930).

The core thesis of Kumarappa's Economy of Permanence, or Kumarappa's theory of public finance, emerges from the wise Talisman of Mahatma Gandhi. According to Gandhi, "*Recall the face of the poorest and the weakest man [woman] whom you may have seen, and ask yourself, if the step you contemplate is going to be of any use to him [her]. Will he [she] gain anything by it? Will it restore him [her] to a control over his [her] own life and destiny? In other words, will it lead to swaraj [freedom] for the hungry and spiritually starving millions? Then you will find your doubts and yourself melt away,*" (Pyarelal, 1958).

While Kumarappa did not use the term 'extractivism', he was talking about the colonial plunder in India as a form of economic extractivism. New forms of extractivism have emerged over the years but majority of the public finance experts and economists in India have not discussed extractivism policies inherent within the modern-day public finance. The concept of extractivism³ and neo-extractivism⁴ are often discussed without

adequately considering their underlying political economy context, which includes power dynamics, economic structure, and institutional arrangements that shape the extraction and exploitation of natural resources. Meanwhile, leading research and policy institutes specializing in fiscal and social policy, such as the Gulati Institute of Finance and Taxation (GIFT), Thiruvanthapuram, Kerala, have made significant strides in rethinking public finance to emerging development challenges. The GIFT recently conducted a three-day international conference titled 'Rethinking Public Finance for Emerging Development Challenges' from 19 - 21 March, 2025 and meaningful deliberations concerning the need to rethink public finance was discussed by public finance experts and scholars across India and beyond. These efforts offer promising avenues for reform and innovation of the domain of public finance in India.

P. P. Pillai in his paper *titled Relevance of Economic Ideas and Ideals of Mahatma Gandhi and JC Kumarappa in Today's Context of Decentralization and Development*, argues that "If Indians have at least an iota of love, regard and respect for Gandhi, because of whom only we enjoy 'Democracy and Freedom', now, it is our duty at this last phase of existence of humanity on this earth to discuss the relevance of development ideas of Gandhi and Kumarappa," (Pillai, 2018).

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Endnotes

- ¹ The author has developed 'AI-driven analysis within the framework of Transhumanism' to Kumarappa's philosophical and economic ideas on public finance on July 15, 2025. The aim is to provide insights into his likely position on GST, had he been alive to consider the issue.

- ² A. M. Jose is the Professor and Head, Amity School of Economics, Amity Business School, Amity University, Haryana, India (Interviewed on July 17, 2025)
- ³ Extrativism refers to large scale extraction of natural resources, often driven by external economic interests with significant environmental and social impacts. The economy's reliance on exporting raw materials driven by entrenched economic interests and rent -seeking behavior, perpetuates a pattern of limited value addition and unsustainable development (Acosta, 2013).
- ⁴ Neo- extrativism is a newer form of extractivism characterized by state -led or state captured resource extraction, often with promises of more equitable and better environmental management. Empirical evidence suggests that the promises of development are often rhetorical, and the process is instead characterized by rent -seeking behavior, which undermines the potential benefits of policy initiatives (Acosta, 2013).

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Revenue position of the states and the union government in India: Analysis of its trends and patterns

Bhadra Vineed and Sumalatha B S

Abstract

This paper analyses the trends and composition of revenue receipts of the Union Government and those of the State Governments in India for a period of 22 years, from 2002-03 to 2023-24. Using official data from the Controller General of Accounts and the Reserve Bank of India, the study examines the shifting structure of tax and non-tax revenues at both tiers of the government. It highlights the significant impact of the Goods and Services Tax (GST), introduced in 2017, which centralised indirect taxation and altered fiscal autonomy. Findings reveal a structural shift at the central level toward greater reliance on tax revenue, particularly direct taxes and GST, while states maintained a more stable but dependent revenue mix, increasingly reliant on devolved central taxes. The analysis also brings to light the declining relevance of legacy taxes and the persistent fiscal asymmetry between the Centre and the States. The study concludes that despite higher aggregate revenue generation by the States, their fiscal dependence on the Centre has intensified, and therefore, emphasises the need for reforms to enhance state-level revenue capacity and strengthen cooperative federalism.

Key words: Revenue position, state government, union government, India

1. Introduction

India's federal governance structure is based on a complex framework of fiscal decentralisation, with constitutionally defined roles for both Union and State governments to mobilise and spend public resources (Vaidya & Srivastava, 2023). At the core of this fiscal architecture lies revenue receipts, which are the primary non-debt source of income for governments. These receipts, comprising tax and non-tax revenue, are fundamental for financing developmental programs, maintaining fiscal discipline, and ensuring macroeconomic stability (Singh, 2019). Revenue collection and fiscal autonomy are distributed unevenly in India. The union government controls

the bulk of high-yielding tax instruments, such as income tax (except for tax on agricultural income), corporation tax, and customs duties. The states are left with taxes like stamp duty, sales tax, and vehicle tax. Additionally, states rely heavily on transfers from the centre in the form of Finance Commission devolution and grants-in-aid, especially Special Category States (SCS), which are historically lagging behind Non-Special Category States (NSCS) in own-revenue mobilisation (Veni, 2020).

A significant turning point in India's tax landscape came with the implementation of the Goods and Services Tax (GST) in 2017, which replaced a range of central and state indirect taxes. While intended to simplify and harmonise the tax regime, GST also altered centre-state fiscal relations by consolidating major sources of state-level taxation. The introduction of GST also called for cooperative decision-making through the GST council (Sharma, 2021). In this context, this paper aims to compare the revenue receipts of the union government with the combined revenue receipts of all state governments. By analysing trends in aggregate tax and non-tax revenues at both levels from 2002 to 2024, the study highlights shifts in revenue composition and growth patterns.

2. Literature review

Revenue receipts of the Union Government of India are those receipts that do not lead to the creation of liabilities for the government or the sale of its assets. It broadly consists of two components: tax revenue and non-tax revenue (Khandare & Maheboob, 2019; Amarjothi & Azhakaraja, 2013). A tax is imposed as a compulsory charge by a public authority through the regulatory and administrative power vested in it, in India, by the constitution (Singh, 2019; Vaidya & Srivastava, 2023). A non-tax revenue may be a fee for the provision of a service by the government, or interest receipts on debt issued by the government (Amarjothi & Azhakaraja, 2013). For the centre, tax revenue comprises the income received from taxes collected by the union government, such as income tax (except for tax on agricultural income), corporation tax, customs, CGST, union excise duties, etc. (Sharma, 2021; Khandare & Maheboob, 2019). Non-tax revenue includes interest receipts, dividends, profits, registration fees, licensing fees, grants-in-aid and contributions (Amarjothi & Azhakaraja, 2013). For the states of India, tax revenue consists of agricultural income tax, sales tax, state excise duties, SGST, vehicle tax and entertainment tax, among others (Veni, 2020; Nayudu, 2019). Non-tax revenue consists broadly of States' Own Non-Tax Revenue and Grants from the Centre (Vaidya & Srivastava, 2023). All the revenue raised is used for expenditure of the government on various projects, schemes, services, infrastructural investment and the like (Sharma, 2021; Singh, 2019).

A major inflexion point in the existing trend was the introduction of the Goods and Services Tax (GST) in 2017. GST replaced a complex system of indirect taxes, significantly restructuring and simplifying both the source and distribution of tax

revenue. Its impact is visible in the sharp increase in tax revenue's share in 2017-18 (from 68.6% in 2016-17 to 73.7% in 2017-18). Introduction of GST and other tax policy reforms post-2010 contributed to improved transparency, better compliance, and a broader tax base. Further, digitisation and structural improvements have facilitated the identification of taxpayers by the government, thus making it harder to evade taxes and easier to identify if one does. This led to steadily rising dominance of tax revenue in India's fiscal framework. This indicates a conscious effort from the central government to anchor revenue collection increasingly towards tax revenue, so as not to rely on non-tax revenue so much. The unpredictable nature of non-tax revenues like dividends and profits has encouraged the centre to lean towards a more robust tax structure, and the consistently rising share of tax revenue in total revenue receipts shows that the centre was successful in achieving this (Khandare & Maheboob, 2019).

The centre retains authority over tax policy design, especially after the GST reform, making the states more dependent on shared revenues and grants from the centre. This structural imbalance creates fiscal asymmetry, where states have larger expenditure responsibilities but limited own-source revenue and have to depend heavily on the centre for development activities (Sharma, 2021; Mathew, 2003). To address fiscal imbalances between the centre and the states, the Constitution (Article 280) provides for a Finance Commission every five years. The formula for grants-in-aid, tax devolution, and fiscal parity between richer and poorer states is suggested by the Finance Commission. Since the 14th Finance Commission increased the states' share of divisible taxes to 42%, tax devolution has emerged as the main method of transfers. At the sub-national level, this mechanism is essential for maintaining fiscal equity and sufficient spending capacity (Bandyopadhyay & Chakraborty, 2019).

While GST made indirect taxation more efficient and effective, it also reduced the states' autonomy over tax policy reforms and made them more dependent on grants and shared revenues from the centre. The centre had a stronger control over Integrated Goods and Services Tax (IGST) and Goods and Services Tax Network (GSTN), further anchoring fiscal power upwards. GST, therefore, represents not just a tax reform, but also a restructuring of the fiscal framework and relations at the national and subnational levels. The establishment of the GST Council ensured joint decision-making between the union and states, but simultaneously centralised control over rate-setting and policy changes. As a result, states surrendered significant fiscal autonomy over indirect taxes, which was one of their key independent revenue sources before the GST came into effect. With the arrival of GST, a unified, destination-based taxation system took the place of a complex network of numerous taxes, including Value Added Tax (VAT), excise taxes, service taxes, and entry taxes, at both the federal and state levels. The distribution structure, collection method, and composition of India's revenue receipts were all drastically changed by this reform (Sharma, 2021).

3. Data sources

This study is based on a 22-year dataset covering the financial years from 2002-03 to 2023-24. Data for the union government's revenue receipts were obtained from the Finance Accounts, official reports of the Controller General of Accounts (CGA), Ministry of Finance, Government of India. These figures include detailed components of tax and non-tax revenues. Data for the combined revenue receipts of all state governments and Union Territories (UTs) were taken from the Reserve Bank of India's (RBI) annual publication, State Finances: A Study of Budgets, which provides consolidated revenue information of all states and UTs.

4. Comparison of revenue receipts: Union vs states

Over the last two decades, as evident from Table 1, the structure of the central government's revenue receipts in India has undergone a significant transformation, both in composition and scale. Data from 2002-03 to 2023-24 shows a marked increase in the share of tax revenue relative to total revenue receipts, rising from 53.4% in 2002-03 to 75.6% in 2023-24. This reflects a trend of increased reliance on taxation as a primary tool for public resource mobilisation. Conversely, the share of non-tax revenue has consistently declined during this period, from 46.0% to 24.3%, while grants-in-aid and contributions have remained marginal throughout. These shifts point out a structural realignment in central finances, where the share of non-tax income sources such as dividends, interest, and fees in revenue receipts has been falling. The grants in aid and contributions are the funds provided by the union government to state governments or other entities for specific purposes.(Table 1).

Table 1: Revenue components of the Union Government (in percentages)

Year	Tax Revenue to total revenue	Non-tax revenue to total revenue	Grants-in-Aid and Contributions to Total Revenue	Total
2002-03	53.4	46.0	0.6	100
2003-04	55.6	43.8	0.6	100
2004-05	60.1	39.3	0.7	100
2005-06	63.1	36.2	0.7	100
2006-07	67.2	32.3	0.5	100
2007-08	68.0	31.6	0.4	100
2008-09	68.1	31.5	0.4	100
2009-10	65.2	34.3	0.4	100
2010-11	61.5	38.2	0.3	100
2011-12	69.6	30.1	0.3	100

Year	Tax Revenue to total revenue	Non-tax revenue to total revenue	Grants-in-Aid and Contributions to Total Revenue	Total
2012-13	70.5	29.2	0.2	100
2013-14	67.4	32.3	0.3	100
2014-15	68.3	31.6	0.1	100
2015-16	66.1	33.7	0.1	100
2016-17	68.6	31.4	0.1	100
2017-18	73.7	26.1	0.2	100
2018-19	73.0	26.9	0.1	100
2019-20	69.8	30.2	0.0	100
2020-21	76.8	23.1	0.1	100
2021-22	74.3	25.6	0.1	100
2022-23	77.6	22.3	0.1	100

Source: Finance Accounts, 2002-2003 to 2023-2024, Controller General of Accounts, Government of India

Table 2 is evidence of the significant restructuring that the centre's internal tax structure underwent following the introduction of GST in July 2017. Before GST, taxes on commodities and services (excluding GST) contributed the majority of central tax revenue, over 53% in 2002-03. However, this category's share declined steadily, reaching 20.7% by 2016-17. Following the implementation of GST, it accounted for 29.4% of the centre's tax revenue in 2017-18, and this share fell to 26.5% in 2023-24. Meanwhile, the share of income and expenditure taxes, including personal income tax and corporation tax, remained relatively steady throughout the period, ranging between 47% and 51%. Taxes on property, capital transactions, and other minor categories consistently contributed less than 2%. The shift reflects the centre's pivot from older indirect taxes toward GST, while preserving its stable income tax base (Table 2).

Table 2: Components of Tax Revenue of the Union government (in percentages)

Year	GST to tax revenue	Taxes on Income and Expenditure to Tax Revenue	Taxes on Property, Capital and Other Transactions to Tax Revenue	Taxes on Commodities and Services other than GST to Tax Revenue	Total
2002-03	0.0	38.3	0.1	61.6	100
2003-04	0.0	40.6	0.1	59.4	100
2004-05	0.0	42.1	0.3	57.6	100
2005-06	0.0	43.3	1.2	55.6	100
2006-07	0.0	46.5	1.5	51.9	100
2007-08	0.0	50.3	2.2	47.5	100
2008-09	0.0	54.3	1.4	44.2	100
2009-10	0.0	57.4	1.8	40.9	100
2010-11	0.0	53.4	1.4	45.2	100
2011-12	0.0	53.0	1.0	46.1	100
2012-13	0.0	51.7	0.8	47.5	100
2013-14	0.0	55.4	0.7	43.9	100
2014-15	0.0	53.4	0.9	45.7	100
2015-16	0.0	48.7	0.9	50.4	100
2016-17	0.0	46.0	0.8	53.2	100
2017-18	29.4	48.9	1.0	20.7	100
2018-19	28.9	50.3	0.9	19.9	100
2019-20	30.7	47.2	0.9	21.2	100
2020-21	26.2	39.4	1.2	33.2	100
2021-22	24.8	47.1	1.3	26.7	100
2022-23	27.8	47.8	1.2	23.2	100
2023-24	26.5	51.0	1.5	21.0	100

Source: Finance Accounts, 2002-2003 to 2023-2024, Controller General of Accounts, Government of India

From Table 3, we see that after the implementation of GST in 2017, there is a growing dominance of Central GST (CGST). In the fiscal year 2017-18, CGST made up 52.8% of the total GST revenue collected at the central level. This percentage has been on the rise every year, reaching 77.1% by 2023-24. On the other hand, Integrated GST (IGST), which initially contributed nearly 30% of GST revenue in 2017-18, experienced a decline and eventually turned negative due to various adjustments and revenue settlements.

Meanwhile, the GST compensation cess has remained a steady contributor, increasing from 17.1% in 2017-18 to 22.8% in 2023-24. GST compensation cess was the compensation given by the centre to the states for the revenue loss they were facing due to the implementation of GST. A rising compensation cess is thus proof that the loss to the states is still a standing issue. The growing share of CGST suggests a trend towards a concentration of indirect tax revenue at the centre, with IGST adjustments and cess collections taking a backseat (Table 3).

Table 3 : Components of GST of the Union Government (in percentages)

Year	Central GST to GST	Union Territory GST to GST	Integrated GST to GST	GST Compensation Cess to GST	Total
2017-18	52.8	0.4	29.7	17.1	100
2018-19	70.7	0.7	3.7	24.9	100
2019-20	74.2	0.7	2.2	22.9	100
2020-21	74.6	0.7	1.9	22.7	100
2021-22	75.3	0.9	0.5	23.3	100
2022-23	76.9	0.8	0.8	21.5	100
2023-24	77.1	0.9	-0.8	22.8	100

Source: Finance Accounts, 2002-2003 to 2023-2024, Controller General of Accounts, Government of India

Within the broader category of taxes on income and expenditure, there was a visible rebalancing between corporation tax and income tax over time. Table 4 shows that in 2002-03, corporation tax accounted for 66.6% of this category, while income tax held a 33.4% share. The dominance of corporation tax peaked in 2010-11 at 69.4%, after which its share declined to 48 % by 2023-24. During the same period, income tax's share rose to 52 %, indicating a gradual shift toward more balanced contributions between corporate and personal income taxation. Fringe benefit tax and interest tax were completely phased out, and hotel receipts tax remained insignificant. This transition reflects broader structural changes in the tax base, such as increased income disclosure and formalisation in the personal tax domain. The share of Interest Tax in Taxes on Income and Expenditure in the years 2002-2003 and 2003-2004 is negative, reflecting their negative value in the accounts, which is due to high debt levels, interest rate environment at the time, and accounting adjustments. Similarly, Other Taxes on Income and Expenditure also saw a negative value in the year 2018-2019, which may be due to refunds and adjustments, or policy changes (Table 4).

Table 4: Components of Taxes on Income and Expenditure of the Union Government (in percentages)

Year	Corporation Tax to Taxes on Income and expenditure	Taxes on Income other than Corporation to Taxes on Income and expenditure	Hotel Receipts Tax in Taxes to Income and expenditure	Interest Tax to Taxes on Income and expenditure	Fringe Benefit Tax to Taxes on Income and expenditure	Other Taxes on Income and Expenditure to Taxes on Income and expenditure	Total
2002-03	55.1	45.2	0.0	-0.4	0.0	0.1	100
2003-04	59.8	40.2	0.0	-0.1	0.0	0.1	100
2004-05	63.3	36.6	0.0	0.1	0.0	0.0	100
2005-06	63.9	32.0	0.0	0.0	4.1	0.0	100
2006-07	64.9	31.8	0.0	0.0	3.2	0.0	100
2007-08	65.1	31.7	0.0	0.0	3.2	0.0	100
2008-09	66.5	30.2	0.0	0.0	3.3	0.0	100
2009-10	67.0	32.1	0.0	0.0	0.9	0.0	100
2010-11	69.4	30.6	0.0	0.0	0.1	0.0	100
2011-12	66.2	33.8	0.0	0.0	0.1	0.0	100
2012-13	65.2	34.8	0.0	0.0	0.0	0.0	100
2013-14	63.2	36.8	0.0	0.0	0.0	0.0	100
2014-15	64.1	35.9	0.0	0.0	0.0	0.0	100
2015-16	63.4	36.6	0.0	0.0	0.0	0.0	100
2016-17	56.8	40.2	0.0	0.0	0.0	3.0	100
2017-18	59.8	38.4	0.0	0.0	0.0	1.8	100
2018-19	60.1	40.2	0.0	0.0	0.0	-0.2	100
2019-20	52.2	47.8	0.0	0.0	0.0	0.0	100
2020-21	49.3	50.8	0.0	0.0	0.0	0.0	100
2021-22	52.0	48.0	0.0	0.0	0.0	0.0	100
2022-23	50.6	49.4	0.0	0.0	0.0	0.0	100
2023-24	48.0	52.0	0.0	0.0	0.0	0.0	100

Source: Finance Accounts, 2002-2003 to 2023-2024, Controller General of Accounts, Government of India

Table 5 shows that the Taxes on Property, Capital and Other Transactions remain minor in the Centre's overall tax structure. However, within this category, the Security Transaction Tax (STT) emerged as the dominant component. In 2004-05, STT made up 80.3% of taxes on property and capital transactions, and this figure rose to 98.8% by 2023-24. Other components, such as wealth tax, gift tax, and land revenue, either diminished in relevance or were abolished entirely. The Wealth Tax was abolished in the Union Budget of 2015, due to high administrative costs and the relatively low revenue it generated. In 2016-17, the share of Security Transaction Tax exceeded 100% due to a significant spike in STT collections alongside minimal or negative contributions from other subcomponents like Wealth Tax and Estate Duty. This statistical anomaly likely arose from strong capital market activity boosting STT revenue, combined with negligible or declining receipts from other taxes in the group. Estate Duty was abolished much earlier, in the year 1985, but it still occurs in the financial accounts, either as zero receipts or as negative balances, because of processing refunds or adjustments. There may be instances where old tax liabilities, disputes, or refunds related to Estate Duty are settled years or even decades later, which can result in amounts being entered under the Estate Duty account head. Thus, Estate Duty remains in the accounts only as a legacy item, and not as an active source of revenue (Table 5).

Before the rollout of GST, Taxes on Commodities and Services other than GST included significant contributors like union excise duties, customs, and service tax. The share of service tax, which grew steadily in the early 2000s, fell sharply after being subsumed into GST in 2017. In response, the share of union excise duties showed a temporary spike due to the shrinking base of other taxes, although its actual revenue significance declined. By 2023-24, this entire category had reduced in relative importance as the GST system took over the majority of indirect taxation responsibilities. Table 6 highlights the restructuring effect that GST had on the composition of commodity-based taxes at the central level. We observe the share of Service Tax falling drastically in the year 2017-2018, following which it dipped into the negatives in recent years, and finally fell to zero in 2023-2024. This is because Services Tax was completely subsumed under GST, and the separate Service Tax regime was abolished. However, negative values were recorded due to refunds or adjustments related to earlier liabilities (Table 6).

In contrast to the trend of the union government, it is evident from Table 7 that state governments already had a higher tax share (68.9% in 2002-03) and maintained it across the period, and in 2023-24, it was at 74.4%. This suggests a more balanced structure for states, but one that has not changed as dramatically. Conversely, non-tax revenue for the states started at 31.1% in 2002-03 and fell to 25.6% in 2023-24. Non-tax revenue at the national level fell more rapidly than that at the states' level, indicating that the states have maintained a more diversified revenue mix. States'

Table 5: Components of Taxes on Property, Capital and Other Transactions of the Union Government (in percentages)

Year	Land Revenue	Stamps and Registration Fees	Estate Duty	Miscellaneous Tax Receipts	Taxes on Wealth	Gift Tax	Security Transaction Tax	Taxes on Immovable Properties	Banking Cash Transaction Tax	Total
2002-03	0.9	19.1	0.2	-	80.9	-1.1	-	-	-	100
2003-04	1.5	23.6	-0.2	-	74.7	0.4	-	-	-	100
2004-05	0.2	6.1	0.0	-	13.1	0.3	80.3	-	-	100
2005-06	0.1	2.3	0.0	-	6.3	0.1	81.1	-	10.2	100
2006-07	0.0	1.8	0.0	-	3.5	0.1	85.2	-	9.3	100
2007-08	0.0	0.9	0.0	-	3.0	0.0	89.9	-	6.1	100
2008-09	0.0	1.8	0.0	-	5.3	0.0	83.8	-	9.1	100
2009-10	0.0	1.1	0.0	-	4.3	0.0	91.5	-	3.1	100
2010-11	0.0	1.9	0.0	-	6.4	0.0	89.7	-	2.0	100
2011-12	0.1	2.1	0.0	-	6.4	0.0	91.4	-	0.0	100
2012-13	0.4	2.2	0.0	-	11.5	0.0	85.9	-	0.0	100
2013-14	0.1	2.7	0.0	-	12.1	0.0	85.1	-	0.0	100
2014-15	0.0	1.9	0.0	-	9.2	0.0	88.9	-	-	100
2015-16	0.2	1.9	0.0	-	12.1	-	85.8	-	-	100
2016-17	0.0	2.1	0.0	-	-2.9	-	100.8	-	-	100
2017-18	0.0	1.7	0.0	0.0	0.6	-	97.7	-	-	100
2018-19	0.1	1.9	0.0	0.0	-0.5	-	98.5	-	-	100
2019-20	0.1	2.4	0.0	0.0	0.0	0.1	97.4	-	-	100
2020-21	0.1	1.4	0.0	0.0	0.1	-	98.5	-	-	100
2021-22	0.0	1.3	0.0	0.0	-0.2	-	98.9	0.0	-	100
2022-23	1.1	1.4	0.0	0.0	0.0	-	97.5	-	-	100
2023-24	0.1	1.2	0.0	0.0	0.0	-	98.8	-	-	100

Source: Finance Accounts, 2002-2003 to 2023-2024, Controller General of Accounts, Government of India

Table 6: Components of Taxes on Commodities and Services other than GST of the Union Government (in percentages)

Year	Commodities Transaction Tax	Customs	Union Excise Duties	State Excise	Taxes on Sales, Trade etc.	Taxes on Vehicles	Taxes on Goods and Passengers	Taxes and Duties on Electricity	Service Tax	Share of Other Taxes and Duties	Total
2002-03	-	32.2	63.1	0.1	0.5	0.0	0.0	0.0	2.7	1.0	100
2003-04	-	30.9	62.8	0.1	0.5	0.0	0.0	0.0	4.9	0.9	100
2004-05	-	32.1	59.2	0.1	0.5	0.0	0.0	0.0	7.7	0.3	100
2005-06	-	30.9	57.4	0.1	0.6	0.0	0.0	0.0	10.7	0.2	100
2006-07	-	34.3	50.5	0.1	0.6	0.0	0.0	0.0	14.3	0.2	100
2007-08	-	35.9	45.9	0.1	0.5	0.0	0.0	0.0	17.3	0.2	100
2008-09	-	35.2	41.6	0.1	0.5	0.0	0.0	0.0	22.3	0.3	100
2009-10	-	32.0	44.9	0.1	0.6	0.0	0.0	0.0	21.9	0.3	100
2010-11	-	37.6	42.3	0.1	0.5	0.0	0.0	0.0	19.1	0.3	100
2011-12	-	36.0	39.8	0.1	0.6	0.1	0.0	0.0	23.1	0.3	100
2012-13	-	33.0	40.4	0.1	0.6	0.0	0.0	0.0	25.6	0.3	100
2013-14	-	33.3	36.8	0.1	0.6	0.0	0.0	0.0	28.8	0.3	100
2014-15	0.0	32.2	38.2	0.1	0.5	0.0	0.0	0.0	28.7	0.3	100
2015-16	-	27.0	45.9	0.2	0.5	0.0	0.0	0.0	26.2	0.2	100
2016-17	-	24.0	48.2	0.1	0.5	0.0	0.0	0.0	26.8	0.3	100
2017-18	0.0	23.7	72.5	0.3	0.7	0.1	0.0	0.0	2.4	0.4	100
2018-19	0.0	24.4	74.5	0.4	0.4	0.1	0.0	0.0	0.0	0.2	100
2019-20	-	23.6	73.2	0.4	0.4	0.1	0.0	0.0	2.1	0.3	100
2020-21	0.0	21.7	77.7	0.2	0.2	0.0	0.0	0.0	-0.2	0.3	100
2021-22	0.0	27.8	73.3	0.3	0.3	0.1	0.0	0.0	-2.3	0.6	100
2022-23	0.2	36.0	62.9	0.3	0.3	0.1	0.0	0.0	-0.2	0.4	100
2023-24	0.1	39.5	59.2	0.3	0.3	0.1	0.0	0.0	0.0	0.6	100

Source: Finance Accounts, 2002-2003 to 2023-2024, Controller General of Accounts, Government of India

limited access to dynamic tax bases and ongoing reliance on central transfers, like tied grants and Finance Commission devolution, are reflected in the stability of their tax shares (Table 7).

Table 7: Components of Revenue Receipts of the State Governments (in percentages)

Year	Tax revenue to total revenue	Non-tax revenue to total revenue	Total
2002-03	68.9	31.1	100
2003-04	68.4	31.6	100
2004-05	71.9	28.1	100
2005-06	71.1	28.9	100
2006-07	70.3	29.7	100
2007-08	70.2	29.8	100
2008-09	69.5	30.5	100
2009-10	68.7	31.3	100
2010-11	72.7	27.3	100
2011-12	74.0	26.0	100
2012-13	75.6	24.4	100
2013-14	75.3	24.7	100
2014-15	70.2	29.8	100
2015-16	73.8	26.2	100
2016-17	70.5	29.5	100
2017-18	74.8	25.2	100
2018-19	74.9	25.1	100
2019-20	70.2	29.8	100
2020-21	65.6	34.4	100
2021-22	73.0	27.0	100
2022-23	74.2	25.8	100
2023-24	74.4	25.6	100

Source: State Finances: A Study of Budgets, 2002-2003 to 2023-2024, Reserve Bank of India

Table 8 shows the components of tax revenue of the states. Taxes on Income, Taxes on Property and Capital Transactions and Taxes on Commodities and Services are part of an umbrella component of tax revenue, called State's Own Tax Revenue (SOTR), while Share in Central Taxes is a separate component on its own. In these, Taxes on Commodities and Services is the component with the biggest share of them all in the tax revenue of the states. Starting from 62.3% in 2002-2003, its share in total tax

revenue fell slightly over the years to 56.2% in 2023-2024. Share in central taxes started at 28.3% in 2002-2003 and rose to 35.2% in 2023-2024. Taxes on income and taxes on property and capital transactions contribute marginally to the tax revenue of the states. Unlike the centre, we do not observe a shift in the composition of tax revenue in the states over the years (Table 8:).

Table 8: Components of Tax Revenue of the State Governments (in percentages)

Year	Taxes on Income to Tax Revenue	Taxes on Property and Capital Transactions to Tax Revenue	Taxes on Commodities and Services to Tax Revenue	Share in Central Taxes to Tax Revenue	Total
2002-03	1.7	7.7	62.3	28.3	100
2003-04	1.7	7.6	62.9	27.8	100
2004-05	0.9	8.3	61.4	29.3	100
2005-06	0.8	9.0	59.4	30.7	100
2006-07	0.8	9.6	57.3	32.3	100
2007-08	0.8	9.5	55.2	34.6	100
2008-09	0.7	8.6	57.4	33.3	100
2009-10	0.7	8.5	59.5	31.2	100
2010-11	0.6	8.9	58.2	32.3	100
2011-12	0.6	9.0	59.0	31.4	100
2012-13	0.5	9.0	59.6	30.8	100
2013-14	0.5	8.5	60.1	30.9	100
2014-15	0.5	8.5	60.8	30.2	100
2015-16	0.4	7.7	54.5	37.4	100
2016-17	0.4	6.9	54.1	38.6	100
2017-18	0.3	7.1	57.7	34.9	100
2018-19	0.3	7.0	54.6	38.1	100
2019-20	0.3	7.6	57.3	34.7	100
2020-21	0.3	7.4	60.1	32.2	100
2021-22	0.3	8.0	54.2	37.5	100
2022-23	0.3	8.4	56.3	35.0	100
2023-24	0.3	8.3	56.2	35.2	100

Source: State Finances: A Study of Budgets, 2002-2003 to 2023-2024, Reserve Bank of India

The components of Taxes on income, as Table 9 shows, are Agricultural Income Tax and Taxes on Professions, Trades, Callings and Employment. The share of Agricultural Income Tax has always been marginal, and in recent years it fell to zero. Taxes on Professions, Trades, Callings and Employment is the major component of Taxes on Income, starting at 97.8% in 2002-2003 and constituting the entirety of the component Taxes on Income by 2021-2022, and maintaining that share for the next 3 years (Table 9).

Table 9: Components of Taxes on Income of the State Governments (in percentages)

Year	Share of Agricultural Income Tax in Taxes on Income	Share of Taxes on Professions, Trades, Callings and Employment in Taxes on Income	Total
2002-03	2.2	97.8	100
2003-04	2.8	97.2	100
2004-05	0.6	99.4	100
2005-06	0.6	99.4	100
2006-07	0.5	99.5	100
2007-08	0.8	99.2	100
2008-09	1.2	98.8	100
2009-10	3.2	96.8	100
2010-11	4.2	95.8	100
2011-12	3.4	96.6	100
2012-13	2.8	97.2	100
2013-14	2.9	97.1	100
2014-15	1.7	98.3	100
2015-16	1.0	99.0	100
2016-17	0.9	99.1	100
2017-18	0.7	99.3	100
2018-19	0.2	99.8	100
2019-20	0.2	99.8	100
2020-21	0.1	99.9	100
2021-22	0.0	100	100
2022-23	0.0	100	100
2023-24	0.0	100	100

Source: State Finances: A Study of Budgets, 2002-2003 to 2023-2024, Reserve Bank of India

From 2002-03 to 2023-24, the structure of property-related taxes in state revenues remained relatively consistent, with stamps and registration fees dominating this category. Its share ranged from 86.5% to 91.5%, peaking in 2022-23, indicating a continued reliance on such revenue by the states. Land revenue, once a more prominent

source, declined from 13.0% in 2003-04 to 8.8% in 2023-24, reflecting administrative neglect and policy shifts. Urban immovable property tax remained underutilised, with its share never exceeding 2.2%, and standing at just 0.9% in 2023-24. Overall, data show that states depend heavily on transactional taxes, while the potential of recurrent property taxes remains largely untapped (Table 10).

Table 10: Components of Taxes on Property and Capital Transactions of the State Governments (in percentages)

Year	Land Revenue to axes on Property and Capital Transactions	Stamps and Registration Fees to Taxes on Property and Capital Transactions	Urban Immovable Property Tax in Taxes to Property and Capital Transactions	Total
2002-03	11.9	87.6	0.5	100
2003-04	13.0	86.5	0.5	100
2004-05	11.3	88.4	0.3	100
2005-06	9.8	89.9	0.3	100
2006-07	9.2	90.2	0.6	100
2007-08	9.6	89.6	0.8	100
2008-09	11.7	87.2	1.2	100
2009-10	11.4	87.7	0.9	100
2010-11	12.4	86.7	1.0	100
2011-12	9.7	88.1	2.2	100
2012-13	10.2	88.5	1.3	100
2013-14	10.3	88.4	1.3	100
2014-15	9.2	89.6	1.2	100
2015-16	10.3	88.4	1.3	100
2016-17	11.3	87.2	1.4	100
2017-18	9.9	89.0	1.1	100
2018-19	8.4	90.6	1.0	100
2019-20	8.2	90.6	1.1	100
2020-21	10.0	88.7	1.3	100
2021-22	8.0	91.0	0.9	100
2022-23	7.7	91.5	0.8	100
2023-24	8.8	90.3	0.9	100

Source: State Finances: A Study of Budgets, 2002-2003 to 2023-2024, Reserve Bank of India

Between 2002-03 and 2016-17, as is evident from Table 11, the tax structure on commodities and services in states was largely dominated by sales tax, which consistently contributed over 68% of revenue in this category. However, a

dramatic structural shift occurred with the introduction of the Goods and Services Tax (GST) in 2017-18. The share of sales tax dropped sharply from 72.5% in 2016-17 to 40.1% in 2017-18 and further declined to just 24.4% by 2023-24. This decline corresponds with the introduction and increasing weight of SGST, which accounted for 35.3% in its first year and rose to 49.8% in 2023-24, becoming the largest contributor. Other traditional components, such as state excise, vehicle taxes, and taxes on electricity, maintained relatively stable contributions. State excise hovered around 13-15%, while vehicle taxes and electricity duties stayed within 5 % to 7% and 3 % to 4% respectively. Notably, taxes like the entertainment tax have nearly disappeared after the introduction of GST, with a negligible contribution of 0.3% in 2023-24. The compositional transformation in state commodity taxation before and after GST is very evident from this table. The growing dominance of SGST marks a shift toward a unified consumption tax framework, while the declining share of legacy taxes reflects the broader consolidation of the indirect tax system. But the growth of GST in states' total tax revenue (SGST and share in CGST) increased more slowly than the GST trend of the centre. This reflects the weaker autonomy of states in setting tax rates and the dependence on central compensation (Table 11).

Table 12 shows that the average annual growth rate of total revenue for the union government fell from 13.9% in 2002-2013 to 11.3% in 2013-2024, indicating a general slowdown in revenue expansion over the second decade. Tax revenue followed a similar pattern, decelerating from 17% to 11.1%, reflecting possible impacts of structural tax reforms like GST implementation after 2017. The growth rate of non-tax revenue has increased from 9.7% to 10.1% during the same period. A major change during the second period was the introduction of the Goods and Services Tax (GST) in 2017. This change is shown in the positive average growth rates of the new components: CGST (17.4%), Union Territories GST (24.9%), and GST Compensation Cess (16.2%). However, the Integrated GST (IGST) showed a negative growth rate of 48.5%. This unusual result was mainly due to transitional accounting adjustments and redistribution problems between the centre and states. This was also supported by the significant negative annual growth values seen from 2018 to 2020 in the year-wise growth of IGST.

Among traditional tax heads, Taxes on Income and Expenditure maintained strong growth, although decelerating slightly from 20.6% to 11.9%. This deceleration may reflect economic shocks like the pandemic and corporate tax rate cuts in 2019. Taxes on Commodities and Services excluding GST also slowed to 7.2%, from 14.3% in the first decade, due to rationalisation and consolidation of indirect taxes after GST was introduced. Taxes on Property, Capital, and Other Transactions recorded a sharp fall in average growth from 79.4% to 18.6%.

Table 11: Components of Taxes on Commodities and Services of the State Governments (in percentages)

Year	Sales Tax to Commodities and Services	State Excise to Taxes on Commodities and Services	Taxes on Vehicles to Taxes on Commodities and Services	Taxes on Goods and Passengers to Taxes on Commodities and Services	Taxes and Duties on Electricity to Taxes on Commodities and Services	Entertainment tax to Taxes on Commodities and Services	SGST to Taxes on Commodities and Services	Other Taxes and Duties to Taxes on Commodities and Services	Total
2002-03	68.6	15.3	6.7	3.4	4.2	0.7	-	1.1	100
2003-04	69.0	15.1	6.6	3.3	4.2	0.6	-	1.1	100
2004-05	71.0	13.3	6.6	3.2	4.4	0.5	-	1.0	100
2005-06	70.7	13.8	6.6	3.5	4.2	0.4	-	0.8	100
2006-07	71.9	13.7	6.2	3.2	3.8	0.3	-	0.9	100
2007-08	71.7	14.1	6.3	2.8	3.8	0.4	-	0.8	100
2008-09	71.6	14.8	5.9	3.1	3.4	0.4	-	0.8	100
2009-10	70.3	15.4	6.1	3.1	3.9	0.4	-	0.9	100
2010-11	70.5	15.0	6.2	2.9	4.4	0.3	-	0.9	100
2011-12	71.9	15.0	6.0	2.4	3.6	0.4	-	0.7	100
2012-13	71.6	14.6	6.0	2.7	3.9	0.4	-	0.8	100
2013-14	73.2	13.1	5.8	3.1	3.6	0.3	-	0.7	100
2014-15	72.8	13.3	6.1	2.9	3.8	0.4	-	0.8	100
2015-16	71.7	13.7	6.1	3.2	4.2	0.4	-	0.8	100
2016-17	72.5	13.3	6.1	3.2	3.9	0.4	-	0.7	100
2017-18	40.1	12.7	6.5	1.4	3.5	0.1	35.3	0.4	100
2018-19	27.0	13.9	6.4	0.3	3.8	0.0	48.3	0.3	100
2019-20	27.0	15.1	6.7	0.2	3.8	0.0	47.0	0.3	100
2020-21	26.5	15.9	5.5	0.2	4.4	0.0	47.2	0.3	100
2021-22	27.6	15.8	5.8	0.1	3.3	0.0	47.1	0.2	100
2022-23	26.4	15.4	6.4	0.1	4.0	0.0	47.6	0.2	100
2023-24	24.4	15.5	6.2	0.2	3.6	0.0	49.8	0.3	100

Source: State Finances: A Study of Budgets, 2002-2003 to 2023-2024, Reserve Bank of India

Estate Duty mostly exhibited slow growth throughout, which is -111.4% in the first period and 33.6% in the second period. Despite reporting a positive average growth rate of 33.6%, Estate Duty does not reflect genuine fiscal expansion. The apparent growth is distorted by anomalous spikes caused due to accounting adjustments. Customs duties declined from 15.5% to 8.9%, Union Excise Duties rose slightly from 9.3% to 10.1%, reflecting their gradual replacement under GST, and changes in trade and fuel taxation structures. These shifts were deliberate and reflect the Centre's effort to streamline indirect taxes under a unified framework (Table 12).

Table 12: Average Annual Growth Rate of the Revenue Components of the Union Government (in percentages)

Components	Average Annual Growth Rate from 2002-2003 to 2012-2013	Average Annual Growth Rate from 2013-2014 to 2023-2024
Total Revenue	13.9	10.5
Tax Revenue	17	11.1
Non-Tax Revenue	9.7	10.1
Grants-In-Aid and Contributions	3.3	33.7
GST	0	9.9
Taxes on Income and Expenditure	20.6	11.9
Taxes on Property, Capital and Other Transactions	79.4	18.6
Taxes on Commodities and Services other than GST	14.3	7.2
Central Goods and Services Tax (CGST)	0	17.4
Union Territory Goods and Services Tax	0	24.9
Integrated Goods and Services Tax	0	-48.5
Goods and Services Tax Compensation Cess	0	16.2
Estate Duty	-111.4	33.6
Security Transaction Tax	58	20.2
Customs	15.5	8.9
Union Excise Duties	9.3	10.1

Source: Finance Accounts, 2002-2003 to 2023-2024, Controller General of Accounts

The analysis of the average annual growth rates of the revenue components of Indian states over the two decades reveals notable structural and policy-induced shifts (Table 13). Total revenue, which grew at 15.7% from 2002-2003 to 2012-2013, slowed to 11.8% in the subsequent decade, reflecting the effects of economic expansion, fiscal consolidation, and the reorganisation of indirect taxation following the introduction of the GST. This deceleration is mirrored almost entirely in tax revenue, which declined from 16.8% to 11.9%, as states gave up several high-yielding taxes to the GST regime. Non-tax revenue remained largely stable (13.1% to 13.2%), supported by consistent income from royalties, fees, and interest. Among specific tax categories, taxes on income, which mainly include professional tax at the state level and agricultural income tax, saw modest growth from 5.2% to 6.3%.

Agricultural Income Tax, which grew by an average of 30.8% in the first period, registered a steep contraction of -10.7% in the second period, reflecting its diminishing relevance and erratic collections throughout the period. A similar pattern was observed for Urban Immovable Property Tax, which dropped from an average of 44.9% to 7.3%, but even as it fell drastically, it did not contribute significantly to revenue in the first period either. Its share just fell relatively more and became negligible in the second period. Land Revenue and Stamps and Registration Fees also saw their average growth decline significantly, from 17.5% to 9.7% and 19.2% to 11.5% respectively. Several erstwhile significant sources, such as Sales Tax, and Taxes on Goods and Passengers saw sharp contractions or stagnation in the second decade due to structural reforms in the taxation system. Sales tax, which recorded 16.7% average growth earlier, grew at just 2.2% in the second period, having been subsumed under SGST. Similarly, Taxes on Goods and Passengers recorded zero growth after 2013, having been entirely absorbed by GST. Surprisingly, Entertainment Tax showed a slightly higher growth in the latter decade, from 11.1% to 14.0%.

The States' Share in Central Taxes also declined, from 18.0% to 14.5%, which can be attributed to the increased use of cesses and surcharges (which are not shared with states) and the structural shift brought by GST. The introduction of GST redefined the structure of state revenue. SGST, operational after 2017, recorded a strong average growth of 17.3%, becoming a major source of tax revenue for the states. The exceptionally high average growth rate of CGST (308%) under state revenue after 2017 is primarily a result of the implementation of GST. Although CGST is a central tax, the figure reflects IGST settlements divided and allocated to states, initially low base effects, and transitional accounting practices,

where GST inflows, including compensation transfers, were sometimes recorded under CGST. This does not imply direct collection by states but highlights the evolving fiscal architecture under GST. Customs and Union Excise Duties were both central taxes, partly devolved to states. The growth of Customs fell from 16.0% to 3.0%, while that of Union Excise Duties remained stable at 6.6%. Corporate Tax and Income Tax showed declines in their average growth rates. While the growth of Corporate Tax fell from 19.3% to 13.2%, the growth of Income Tax fell only slightly from 19.2% to 18.5% (Table 13).

Table 13: Average Annual Growth Rate of the Revenue Components of the States (in percentages)

Components	Average Annual Growth Rate from 2002-2003 to 2012-2013	Average Annual Growth Rate from 2013-2014 to 2023-2024
Total Revenue	15.7	11.8
Tax Revenue	16.8	11.9
Non-Tax Revenue	13.1	13.2
Taxes on Income	5.2	6.3
Agricultural Income Tax	30.8	-10.7
Taxes on Professions, Trades, Callings and Employment	5	6.6
Land Revenue	17.5	9.7
Stamps and Registration fees	19.2	11.5
Urban Immovable Property Tax	44.9	7.3
Sales Tax	16.7	2.2
State Excise	15.8	11.6
Taxes on Vehicles	15	11.9
Taxes on Goods and Passengers	14.1	0
Taxes and Duties on Electricity	16	10.9
Entertainment Tax	11.1	14
SGST	0	17.3
Share in Central Taxes (of which)	18	14.5
CGST	0	308
Corporation Tax	19.3	13.2
Income Tax	19.2	18.5
Union Excise Duties	6.6	6.6
Customs	16	3

Source: State Finances: A Study of Budgets, 2002-2003 to 2023-2024, Reserve Bank of India

5. Conclusion

This paper examined the revenue receipts of the union government and the state governments combined from 2002-03 to 2023-24. The quality of the states' revenue base is still structurally weaker, even though they have demonstrated greater overall revenue growth and currently generate more total revenue than the centre. As a result of the introduction of the GST, states now have less autonomy and are more reliant on shared revenues and compensation, which further centralised indirect taxation. A component-wise analysis of their share and growth demonstrates that the tax base at the centre is more concentrated and elastic, while states continue to operate on a more fragmented structure. Overall, states remain fiscally dependent on the centre due to limited control over high-growth tax instruments. Taxes such as Stamps and Registration Fees remain significant at the state level but not at the central level. Several legacy taxes, such as Estate Duty, Wealth Tax, and Gift Tax, continued to appear in the accounts despite having been abolished, occasionally producing distorted averages due to irregular accounting entries and adjustments. Electricity duties, once a steady contributor, saw a marked decline due to exemptions and the rising popularity and use of renewable resources. Similarly, certain components like Service Tax and Banking Cash Transaction Tax demonstrated sharp falls due to structural reforms and policy transitions. Enhancing capacity at the state level, restructuring outdated tax architecture, and re-examining share and compensation frameworks of revenue are necessary to strengthen cooperative federalism and give the states more autonomy and fiscal strength.

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Morbidity and socio-economic burden of endosulfan in Kerala

Lini G R and Aiswarya P V

Abstract

The worldwide consumption of pesticides has reached 2.6 million metric tons, of which nearly 85 percent is used in agriculture. Although developed countries account for the largest share, pesticide use is expanding rapidly in developing nations, raising serious public health concerns (WRI, 1999). India, in particular, reports high levels of pesticide residues, which have contributed to severe health-related challenges. In Kerala, the aerial spraying of the highly toxic pesticide endosulfan, without proper safety precautions, has generated widespread vulnerability. Cashew plantations located in mountainous regions were subjected to intensive spraying, and the chemical residues were carried down the slopes during monsoon rains, contaminating local water sources. Continuous consumption of this polluted water resulted in a spectrum of chronic health conditions, including physical deformities, cancers, congenital disorders, and neurological damage.

The consequences of endosulfan exposure extend beyond the health domain, creating significant social and economic costs for affected households. Families face high medical expenditures, loss of productive income, dependency on welfare support, and long-term social stigma. These burdens cannot be measured purely in monetary terms, as they encompass diminished quality of life and intergenerational effects. In this context, the present study seeks to identify the morbidity status of endosulfan victims in Kerala and to examine the socio-economic determinants associated with multiple morbidities. The findings aim to provide insights into the intersection of environmental health risks and economic vulnerability, highlighting the need for integrated policy responses.

Keywords: Pesticides, Endosulfan, Morbidity, Socio-Economic Burden, Environmental Health, Health Shocks

1. Introduction

Pesticides have played a crucial role in preventing millions of deaths by controlling pests that transmit diseases such as malaria, bubonic plague, and typhus (Hart & Pimentel, 2002; Pimentel, 2005). While their large-scale application has brought significant benefits, it has also created serious environmental and human health concerns (Mascarelli, 2013). Many insecticides are ineffective in selectively targeting pests and often harm non-target species, producing adverse ecological and health consequences (Horrigan et al., 2002). Consequently, indiscriminate pesticide use has generated considerable socio-economic and environmental externalities (Matyjaszczyk et al., 2019).

Since the 1970s, interdisciplinary research has highlighted the off-farm health and environmental risks of pesticide use, concluding that unchecked chemical reliance in agriculture is neither environmentally sustainable nor socially viable. In particular, indiscriminate insecticide application has been linked to severe health outcomes (Ansari et al., 2014; Nicolopoulou-Stamati et al., 2016), including risks to fetal development (Gilden et al., 2010). Globally, about 41 million people are exposed to pesticides annually (PAN International, 2007). WHO (2009) estimates that pesticide poisoning causes at least 300,000 deaths per year, mostly in low- and middle-income countries. The World Bank (2008) placed this figure at 355,000, while the Pan American Health Organization suggested that 50-80 percent of pesticide poisonings go unreported across the Americas (PAHO, 2011).

In India, pesticides such as insecticides, fungicides, and herbicides are widely used, with insecticides dominating the market. The country is one of the largest producers of pesticides globally, and the market value was estimated at Rs.197 billion in 2018 (Down to Earth) (Figure 1).

Endosulfan and negative externality in Kerala

Kerala's model of development has expanded education, healthcare, land reforms, and social security. Yet, sections of the population remain vulnerable, as demonstrated by the tragedy in Kasaragod district, where aerial spraying of endosulfan over cashew plantations for more than two decades exposed thousands to health hazards and ecological damage.

Endosulfan was sprayed thrice yearly, and residues drained downhill during monsoons, contaminating drinking water sources. Continuous exposure led to chronic illnesses, physical deformities, cancers, congenital disorders, and neurological damage. Nearly every household in the affected panchayats reported victims, many permanently disabled or mentally challenged.

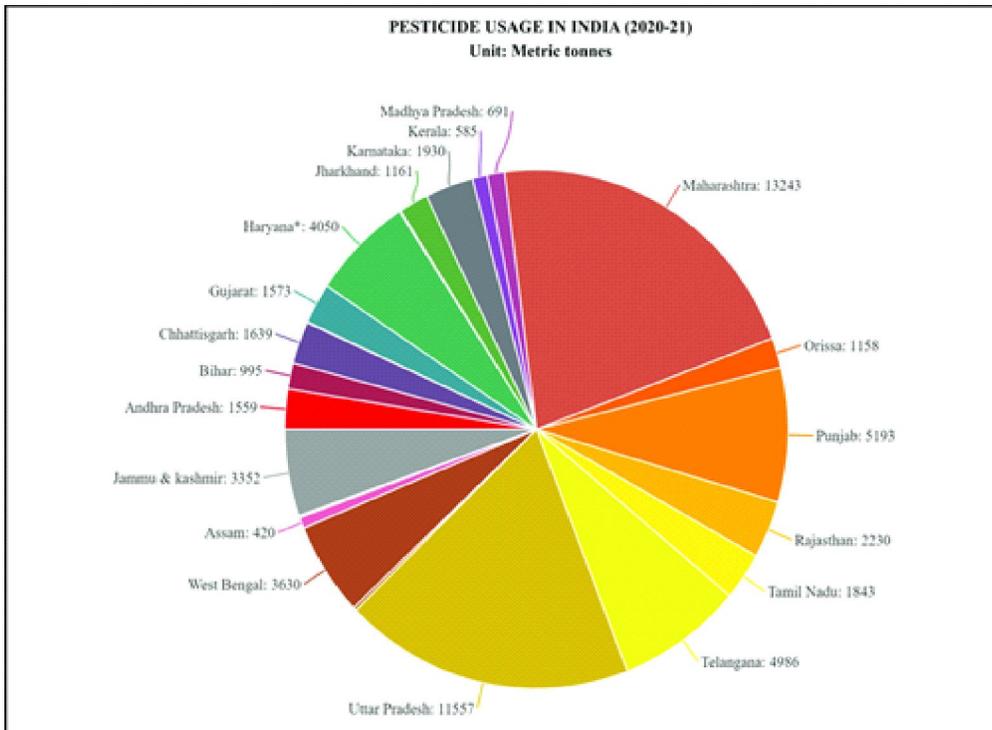
The social costs of this crisis extend far beyond measurable healthcare expenses. Externalities include biodiversity loss, groundwater contamination, and productivity

decline, which remain uncompensated. The Kerala Plantation Crops Authority primarily considered private costs of plantation output, overlooking long-term health and environmental impacts. This represents a clear case of market failure, where divergence between private and social costs produced devastating negative externalities.

Government interventions have been limited. Medical camps identified 4,273 individuals suffering from nearly 300 types of diseases attributed to endosulfan exposure (GoK, 2011). However, no scientific diagnostic tests were conducted, leaving causal links unproven. As a result, many genuine victims were excluded from official beneficiary lists. This exclusion compounded the externality, as affected families bore health and economic burdens without adequate support.

Thus, the endosulfan tragedy illustrates how unregulated pesticide use can create overlapping health, environmental, and economic damages. Beyond human suffering, it has constrained Kerala's developmental achievements by imposing hidden costs on vulnerable communities. Against this backdrop, the present study seeks to examine the morbidity status of endosulfan victims and analyze correlations between their socio-economic conditions and morbidity pattern.

Figure 1. Pesticide Usage in India from 2020-2021



Demographic and socio-economic characteristics of the household head

Table 1 shows the socio-demographic profile of household heads of endosulfan victims in Kasaragod district. The average age was 59.08 years (SD \pm 1.01). About 22% of victims were from female-headed households. Nearly 70% of household heads were married, 23% widowed, and 6% unmarried. Literacy was reported among 64%.

Almost half were unemployed, while 26% worked without permanent wages. Over half (58%) lived in joint families, usually with 5-10 members. The mean household size was 5.03.

Table 1. Background Characteristics of the Head of the Household of Endosulphan Victims

Background Characteristics	Sample	Percentage
Age		
35-50	78	26
51-60	93	31
60+	129	43
Sex		
Male	234	78
Female	66	22
Marital status		
Unmarried	18	6
Currently married	210	70
Widow/widower	69	23
Divorced/separated	3	1
Educational status		
Illiterate	108	36
Less than primary education	63	21
Primary education	51	17
Less than secondary education	30	10
Tenth	36	12
Higher Secondary	9	3
	3	1
Employment status		
No job	144	48
Self-employed	3	1
Permanently employed	78	26
No permanent wages	75	25
Household size(max-10, mini-1)		
1-4	126	42
5-10	174	58

Demographic characteristics of the victims of endosulfan

Table 2 presents the demographic profile of endosulfan victims. Females formed 53% of the sample. Respondents ranged from 7-87 years, with a mean age of 44.08 (SD \pm 2.062). Children comprised 9%, elderly (61+) 27%, and over 60% were in the working-age group.

More than half were married, 28% unmarried, and 17.6% widowed. Among females, 26% were unmarried, 46% married, and 28% widowed, while among males, 29% were unmarried, 64% married, and 7% widowers. Thus, widowed women were nearly four times more than widowed men.

Table.2 Background characteristics of endosulfan victims

Background characteristics	Sample	Percentage
Age (max-87, mini-7)		
7-14	27	9
15-24	48	16
25-49	87	29
50-60	57	19
61+	81	27
Sex		
Male	141	47
Female	159	53
Marital status *		
Unmarried	75	27.5
Currently married	150	54.9
Widow	48	17.6
Education		
Illiterate	72	24
Primary	90	30
Secondary	102	34
Higher secondary and above	36	12
Relationship with household head		
Head of the household	123	41
Wife of the household	42	14
Married daughter/son	12	4
Married son/daughters wife/husband	39	13
Unmarried son/daughter	72	24
Granddaughter /son	3	1
Father mother or father in law or mother in law	3	1
Brother/sister or brother in law/sister in law	6	2
Employment status		
Permanently employed		
No permanent wages		
Students		
Others#		

*not include children <15 years

others include those who have no job and housewife

Socio-Economic Characteristics of the Victims

Table 3 shows the socio-economic profile of endosulfan victims. Most were Hindus (83%), and over 60% belonged to OBCs, followed by SC (18%), ST (7%), and others (11%). Economically, 78% lived below the poverty line and 23% in kutcha houses. Nearly 38% lacked health insurance, making them dependent on out-of-pocket spending for frequent health issues, thereby deepening economic vulnerability (Table 3).

Table 3. Socio-economic background of the victims

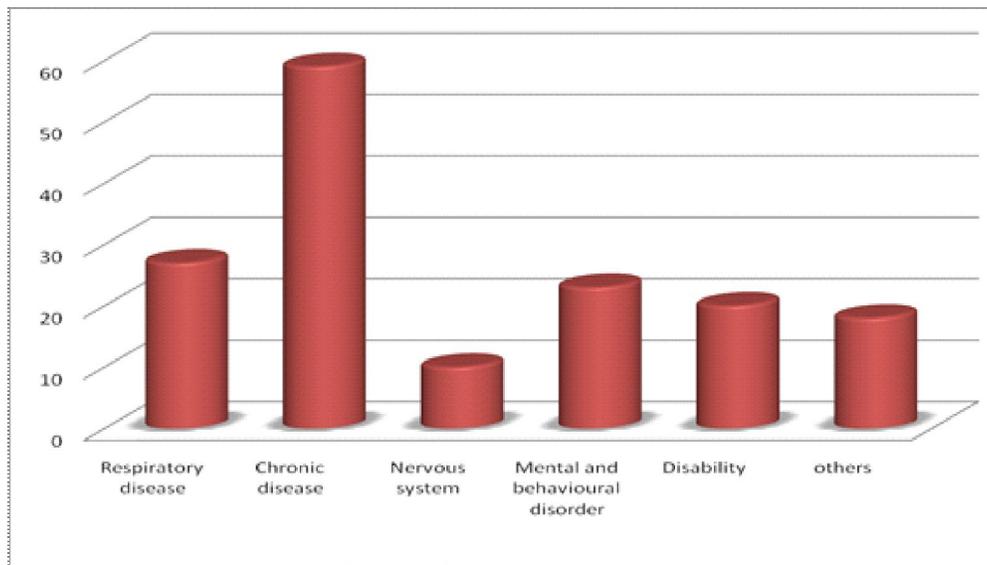
Background characteristics	Sample	N(%)
Religion		
Hindu	249	83
Christian	3	1
Muslim	48	16
Caste		
SC	54	18
ST	21	7
OBC	12	64
Others	33	11
Poverty level		
Below poverty line	234	78
Above poverty line	66	22
Ownership of house		
Own	294	98
Rent	6	2
Type of house		
Kutcha	69	23
Semi pucca	168	56
Pucca	63	21
Source of water		
Own well	168	56
Neighbours well	45	15
Common well	42	14
Others	45	15
Using of water purification		
Yes	189	63
No	111	37
Source for cooking		
Wood	102	34
Gas(LPG)	6	2
Wood and LPG	192	64
Have own land		
Yes	282	94
No	18	6
How much cent have		
<10 cent	42	14.9
10-20	60	21.3
20-50	39	13.8
Above 50	141	50
Have health insurance		
Yes	186	62
No	114	38

Regarding basic needs, 56 percent of victims relied on their own wells for domestic water, while 15 percent used common wells and another 15 percent used other sources. About 37 percent did not use any purification methods. Most victims (90%) owned land, with over half holding more than 50 cents. However, 43 percent were excluded from the beneficiary list, leaving many struggling to meet daily needs.

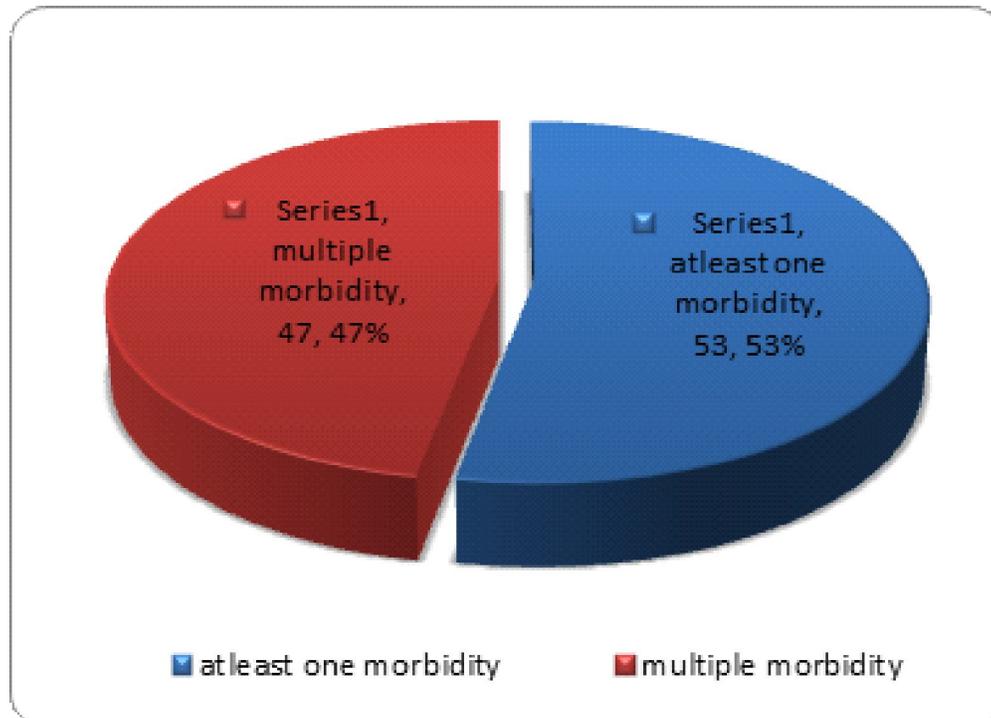
Morbidity pattern of the endosulfan victims

Morbidity generally refers to chronic and age-related diseases. While severity often increases with age, lifestyle changes in modern times have led to morbidity across all age groups. The unscientific and excessive use of pesticides has further contributed to health issues such as infertility, birth defects, attention deficit hyperactivity disorder, diabetes, respiratory diseases, and obesity (Figure 3).

Figure 3. Types of Morbidity Suffering by Endosulfan Victims



The morbidity profile of endosulfan victims reveals that 59 percent suffered from chronic illnesses such as diabetes, hypertension, heart disease, paralysis, cancer, or thyroid disorders. Additionally, 27 percent reported respiratory problems, 23 percent mental or behavioral disorders, 20 percent disabilities, 10 percent neurological issues, and 18 percent other conditions including joint pain, infertility, obesity, or piles. Overall, 53 percent had some form of morbidity, with 40 percent experiencing two morbidities and 7 percent facing three or more

Figure 4. Morbidity Pattern of Endosulphan Victims**Demographic, socio-economic association with morbidity status among the victims of endosulfan**

Socio-economic disadvantage is a major factor in disease occurrence. In Kasaragod, poor conditions and low awareness have led to widespread single and multiple morbidities among endosulfan victims. Table 4 shows that single morbidity was more common across age groups, while multiple morbidities peaked (59.3%) among those 61+. Single morbidity dominated in both low and high socio-economic groups, whereas multiple morbidities were higher in the medium group. By gender, 55.3% of males reported multiple morbidities, while 60.4% of females had single morbidity. Direct causes were mainly linked with single morbidity, whereas indirect causes corresponded to multiple morbidities.

Table 4. Demographic, socio-economic association with morbidity status among the victims of endosulphan

Background characteristics	At least one morbidity	Two or more morbidity
Age of the victim		
7-14	77.8	22.2
15-24	56.2	43.8
25-49	51.7	48.3
50-60	57.9	42.1
61+	40.7	59.3
Standard of living index		
Low	57.4	42.6
Medium	41.90	58.1
High	60.0	40.0
Marital status		
Unmarried	52.0	48.0
Currently married	48.0	52.0
Widow/widower/Divorced/ separated	56.0	43.8
House hold size		
1-4	54.8	45.2
5-10	51.7	48.3
Sex		
Male	44.7	55.3
Female	60.4	39.6
Marital status		
Unmarried	52.0	48
Currently married	48	52
Widow	56.2	43.8
Religion		
Hindu	51.8	48.2
Christian	0	100
Muslim	62.5	37.5

Background characteristics	At least one morbidity	Two or more morbidity
Caste		
SC	44.4	55.6
ST	57.1	42.9
OBC	57.8	42.2
Others	36.4	63.6
Poverty line		
yes	51.3	48.7
Ownership of house		
Own	52.0	48.0
rent	100	0
Type of house		
Kutcha	34.8	65.2
Semi pucca	53.6	46.4
pucca	71.4	28.6
Water purification before use		
Yes	52.4	47.6
No	54.1	45.9
Source of cooking	54.1	2
Wood	41.2	58.80
Gas(LPG	50	50
Both wood and gas	59.4	40.6
Reason to have the disease		
Direct relation	56.6	43.4
Indirect relation	41.7	58.3
Have Medical allowance		
Yes	47.2	52.8
No	59.6	40.4

The table shows that single morbidity declines with age, while multimorbidity rises, reaching 59% among those aged 60+. Over three-fourths of single morbidity cases occur in the 7-14 age group. Multimorbidity is lower (40%) among high living-standard households but increases, along with single morbidity, as household size grows. By gender, females report more single morbidity (60%), whereas males report more multimorbidity (55%). Caste-wise, single morbidity is highest among Scheduled Tribes and OBCs, while multimorbidity is most common among Forward Castes.

Table 5. Socio economic and demographic correlates of multiple morbidity among endosulfan victims

Background characteristics	Exp(B)	Sig	95% C.I.for EXP(B)	
			Lower	Upper
Age				
17-14®				
15-24	7.184	0.000	3.808	8.456
25-49	0.297	0.191	0.048	1.833
50-60	6.362	0.032	1.276	9.744
61+	9.134	0.000	7.306	10.480
Sex				
Male®				
Female	0.007	0.000	0.001	0.037
Marital status				
Unmarried®				
Currently married	5.852	0.059	0.935	36.618
Widow	7.467	0.007	2.773	8.678
Education				
Illiterate®				
Primary	1.535	0.495	0.449	5.244
Secondary	1.447	0.593	0.373	5.605
Higher secondary and above	10.899	0.010	1.764	17.337
Employment status				
Permanently employed®				
No permanent wages	1.360	0.006	1.329	4.760
Students	1.410	0.669	0.292	6.805
Others#	5.976	0.003	3.083	8.853

Background characteristics	Exp(B)	Sig	95% C.I.for EXP(B)	
			Lower	Upper
Religion				
Hindu®				
Christian	1.842	0.999	0.000	2.258
Muslim	2.272	0.000	1.131	3.316
Caste				
SC®				
ST	0.080	0.026	0.009	0.743
OBC	0.411	0.268	0.085	1.985
Others	1.437	0.686	0.248	8.325
Poverty level				
Below poverty line®				
Above poverty line	0.318	0.037	0.108	0.935
Type of house				
Kutcha®				
Semi pucca	0.022	0.000	0.004	0.113
Pucca	0.004	0.000	0.000	0.040
Source of water				
Own well®				
Neighbours well	0.359	0.141	0.092	1.404
Common well	0.083	0.005	0.015	0.477
Others	0.016	0.000	0.003	0.097
Using of water purification				
Yes®				
No	2.172	0.000	1.007	5.124
Source for cooking				
Wood®				
Gas(LPG)	2.940	0.443	0.186	4.376
Wood and LPG	0.350	0.125	0.092	1.336
Have health insurance				
Yes®				
No	0.060	0.000	0.020	0.173

® Reference Category

Table 5 shows binary logistic regression results on socio-economic and background factors affecting multiple morbidity among endosulfan victims. The risk is higher among ages 15-24 and 50+ compared to below 14 years, and among males than females. Widows/widowers are about seven times more likely to suffer multiple morbidity than the unmarried (CI: 2.773-8.678, significant). Victims without purified water face over twice the odds (OR: 2.172, CI: 1.007-5.124).

Conclusion

The study clearly demonstrates that the indiscriminate use of endosulfan in Kasaragod district has resulted in profound and long-lasting health, social, and economic consequences. The findings reveal a high prevalence of morbidity and multimorbidity among victims, particularly among the elderly, widowed, and socio-economically disadvantaged groups. Despite Kerala's commendable achievements in human development, the endosulfan tragedy underscores how lapses in environmental governance and inadequate regulation of chemical use can generate devastating negative externalities that erode public health gains and deepen social inequities. The results highlight that exposure to environmental toxins such as endosulfan not only affects individuals' physical health but also imposes far-reaching economic and emotional burdens on affected families and communities.

The analysis further indicates that demographic and socio-economic characteristics—such as age, marital status, educational level, housing condition, access to safe drinking water, and health insurance coverage—are significantly associated with multiple morbidity among victims. The lack of clean water and inadequate healthcare protection have aggravated health risks, trapping many households in a cycle of illness and poverty. These findings call for stronger policy interventions that integrate environmental safeguards with public health planning. Comprehensive rehabilitation programs, effective compensation mechanisms, and promotion of eco-friendly pest management are essential to mitigate the long-term impacts of such disasters. The study thus reinforces the urgent need for a sustainable development approach that prioritizes human health and ecological integrity alongside agricultural productivity.

Policy recommendations:

1. Strengthen Environmental and Pesticide Regulation:

The endosulfan tragedy highlights the urgent need for stricter enforcement of pesticide regulation in India. Policies should mandate periodic monitoring of pesticide residues in soil, water, and crops, and ensure that only eco-friendly and WHO-recommended chemicals are permitted. The Central Insecticides Board and Registration Committee (CIBRC) must strengthen its post-approval surveillance mechanisms, and state-level monitoring cells should be empowered to ban harmful substances immediately upon evidence of health risks.

2. Promote Sustainable and Integrated Pest Management (IPM):

To reduce dependency on chemical pesticides, agricultural policies should promote Integrated Pest Management (IPM), organic farming, and bio-control alternatives. Training programs for farmers through Krishi Vigyan Kendras (KVKs) and agricultural extension services should emphasize safe pesticide handling, appropriate dosage, and the long-term economic benefits of non-chemical pest control methods.

3. Comprehensive Health Surveillance and Medical Support:

Establishing a long-term health surveillance system for pesticide-exposed communities is essential. The government should set up specialized medical centers in affected regions for continuous screening, treatment, and rehabilitation of victims. Free medical check-ups, mental health services, and mobile health units must be made available to ensure accessibility for marginalized and remote populations.

4. Targeted Socio-Economic Rehabilitation Programs:

Many endosulfan-affected families continue to suffer financial distress due to chronic illness and disability. The government should ensure comprehensive compensation schemes, disability pensions, and livelihood support programs. Special provisions for education and skill development for victims and their dependents can help restore economic independence and social dignity.

5. Improved Access to Clean Water and Sanitation:

Given the strong association between water contamination and morbidity, policies should prioritize access to safe drinking water in all pesticide-affected regions. The installation of community-based purification systems, rainwater harvesting, and regular water quality testing should be institutionalized under the National Rural Drinking Water Programme.

6. Expand Health Insurance and Social Protection Coverage:

Victims of environmental exposure often lack adequate financial protection against medical expenses. Expanding government-sponsored health insurance schemes such as Ayushman Bharat to include chronic pesticide-related illnesses can prevent further impoverishment of vulnerable families. Dedicated funds should be established for emergency medical aid and rehabilitation.

7. Community Awareness and Participatory Governance:

Strengthening community participation in environmental decision-making is vital. Awareness campaigns should educate local communities on the risks of pesticide misuse, safe agricultural practices, and available health services.

Empowering Panchayat Raj Institutions to monitor local environmental health issues can foster accountability and ensure early intervention.

8. Research and Data-Driven Policy Planning:

Continuous interdisciplinary research is needed to assess the long-term ecological and health effects of pesticides. Establishing a national database on pesticide exposure, health outcomes, and compensation status can aid policymakers in designing evidence-based interventions and preventive measures.

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The emerging platform economy in India- a broad review

Anagha Roy

Abstract

This study examines the growth and characteristics of gig workers in India using PLFS data and an improved methodology based on NITI Aayog's report. Gig workers, especially platform workers, are identified using supply-side (age, education, MPCE, urban location) and demand-side (occupation, industry) filters. The results show higher estimates than official figures, with 11.98 million gig workers in 2017-18, 13.21 million in 2019-20, and a slight dip to 13.03 million in 2022-23. Female participation remains low but is growing among the younger and more educated. The study highlights the need for official enumeration and balanced regulation to protect workers while encouraging sector growth.

Key words: Platform workers, gig economy, workforce and Code on social security

1. Introduction

Labor markets undergo changes according to the changes in employment arrangement. Gig economy is one such development in the labour market. The code on Social Security 2020 defines gig worker as a person who engages in income earning activities outside of a traditional employer-employee relationship. It is classified into platform and non-platform work. When gig workers use a digital platform to render service they are termed as platform workers. Expansion of internet and the process of digitization has enabled the high growth of gig economy, or particularly platform economy. Rapid growth in the number of gig workers and the expansion of gig into a variety of sectors makes it an important area of study.

India is an emerging and rapidly expanding market for gig work. According to the report of NITI Aayog titled "India's Booming Gig and Platform economy" ,77 lakh

workers were engaged in the gig economy in 2020-21 and it is estimated to reach 2.35 crore workers by 2029-30. Given the flexibility of work, many studies anticipate a higher participation of females in the gig workforce. The popularity of the gig or platform sector among women can be re-emphasized by studies which indicate that women are "major beneficiaries" of the gig economy. (Ruchika Chaudhary, 2020). Globally, the proportion of people who responded that online work was their main source of income was higher in developing countries and among women. Unfortunately, in India we don't have a system for proper enumeration of gig workers, which makes it difficult to conduct further studies in the area. The first and only official estimate available to us now is the report of NITI Aayog titled "India's Blooming Platform Economy". The study aims to revise and build upon the report's methodology to arrive at the estimate for number of gig workers for the latest period of 2022-23. It also provides a re-estimation for the years 2017-18 and 2019-20 using the revised methodology. Comparison between 2019-20 and 2022-23 estimates are used to see how the numbers change during and after COVID-19. Apart from estimation the study also dwells into understanding some trends and distribution of workers. Since the new methodology have relaxed certain assumptions, we expect the 2019-20 and 2022-23 estimates to be higher than the NITI Aayog's estimate.

The study uses PLFS dataset. We use the concept of demand and supply side characteristics mentioned in NITI Aayog's report to identify gig workers. To do this multilevel filtering is performed on the total workforce of India. The supply side characteristics include region, age, education, MPCE. The NITI Aayog report uses only the top 100 metropolitan cities as identified by the census 2011. But as per the data available we only obtain the list of 45 top cities in India. Filtering out only those cities will lead to severe underestimation. Also, as a matter of fact, gig economy has expanded to almost all urban areas of India even though it is not present in the top cities list. So, we take all the urban areas of India as first level filtering due to the nature of gig work and its widespread presence in all urban areas. Second level filtering is applied on age. Gig workers are assumed to be mostly in the age category of 18 to 45. This assumption is valid as most gig workers are platform workers and requires basic understanding of using smartphones and technology. In the next step we filter workers based on the level of education. Gig workers are assumed to have education qualification of secondary level or more. Since in India, most of the platform jobs are undertaken to supplement their main income it is assumed that gig workers are most likely to be in the bottom 75th percentile MPCE. The NITI Aayog report uses mobile phone penetration rate given by world bank to account for mobile phone penetration. But this study assumes that the already filtered characteristics will account for this condition. Therefore, we don't use mobile phone penetration as an additional filtering.

The demand side characteristics uses NCO-2004 and NIC-2008 to identify the occupation and the sectors which are potentially gigable. The study uses the same set

of occupations and sectors mentioned in the NITI Aayog report which is obtained by considering the already published works on gig workers in India. This filtering process gives us a proportion of gig workers of the total workforce for that particular year. It is then adjusted to weights and multiplied with total urban workforce for the respective time period to arrive at the total gig workers in India.

2. Review of literature

Gig economy is an emerging trend in the global labor market. Improvement in internet and wireless communication and smartphone technology has changed the nature of work. This helped in the emergence of temporary flexible work arrangement / freelancing/ gig/ platform work. Under gig economy, the worker receives the payment only after completion of that piece of work. Such a kind of work arrangement was prevalent in the pre industrial era. But after industrialization fixed working hours, wages, employer-employee relationship emerged. After the 2008 financial crisis, gig work emerged again as people wanted means to supplement their falling income. But this time, the work arrangement became more techno-based. (Mehta, 2020) In other words, gig economy is labor market activities coordinated via digital platforms (Ruchika Chaudhary, 2020). Not all industries have picked up gig work equally; the four largest industry sectors that account for around 50% of jobs transferred to gig work are construction, retail, manufacturing and transportation (BCG Report, 2021).

There are different ways by which the gig economy is classified. Most of the literature classify it as crowd work and on demand application based work or physical work. Crowd work involves online work engaged in micro tasks, performed by freelancers. On demand work fulfills the daily traditional activities with a digital platform or application (Ruchika Chaudhary, 2020).

The gig economy has proved as a mass labor absorber. In the US, around 55 million people were estimated to be part of the platform economy in 2017. (Anweshaa Ghosh, 2022). Recognizing the growing importance of the sector, researchers have focused their studies on the shortfalls of such a kind of arrangement. Heels (2017) explains structural asymmetry where the platforms have all the information related to the worker, giving them the power to manipulate the system. Further flexibility of the work is often criticized for leading to commodification of workers. Informalization of labor dilutes the company's obligation to provide social security benefits (Anweshaa Ghosh, 2022) Also the measuring of workers' performance through ratings by customers which is used to pay wages leads to unequal power and the workers may end up working 24 hours to improve their ratings (Anweshaa Ghosh, 2022) Yet the recent IWWAGE study with beauty workers from Urban company revealed that 85% of respondents were satisfied with flexible timings and acknowledged it was the most attractive feature of gig work.

Understanding the importance of the gig economy, several nations have enacted certain

regulations to reduce the exploitation of workers. California Bill on gig workers (AB5) restricts the companies to treat workers as independent contractors. In 2018, the European commission mandated the provision of maternity leave and other benefits to gig workers. The US government recommended recognition of gig workers as a separate category of workers. Canada identified gig workers as dependent contractors through which they can unionize and will be provided minimum wages. (Anweshaa Ghosh, 2022)

India is an important destination for gig workers. Developing and regulating this sector to yield the most benefit out of the demographic dividend is considered crucial. This is more revealed by looking at the employment situation in India. The unemployment figures in the country are escalating as revealed by these number. The youth who belong to the category of 'not in education, employment, or training' (NEET) reached 100 million in 2018, which was 27 per cent of the total youth in the country and the highest in the world. (Mehta, 2020). Therefore, if we are able to tap the job absorbing capacity of the gig sector and regulate it, we can increase the employment opportunities for the citizens. Interestingly, millennials (1980-2000) which forms 34% of India's population and 45% of India's workforce prefer gig work (Mehta, 2020)

According to a report by the industry body Associated Chambers of Commerce and Industry of India (ASSOCHAM) in January this year, India's gig economy is estimated to grow at a CAGR of 17.4 per cent, from USD 204 billion to USD 455 billion by 2023. In India, NITI Aayog estimated that since 2014, ola and uber have created jobs around one million and 2.2 million. But gender disaggregated data is not available. Under the iLabour Project, a research project at the Oxford Internet Institute, an Online Labor Index (OLI) has been developed to study the gig economy. It provides insights regarding country-specific skills popular in the global online market. For instance, the 2017 Index highlights writing and translation as the top occupational categories in the USA, while it is software development in the case of India.

NITI Aayog's 2020 report on gig economy defines gig worker as a person who engages in income earning activities outside of a traditional employer-employee relationship. It is classified into platform and non-platform work. When gig workers use a platform to render service they are termed as platform workers (India's Booming Gig and Platform economy: Perspectives and Recommendations on the future of work, 2022) According to the report 77 lakh workers were engaged in the gig economy in 2020-21 and it is estimated to reach 2.35 crore workers by 2029-30. In India, 1.33% of total workers in UPSS are gig workers. Share of gig workers is largely concentrated in the unorganized sector, but informal work relation is prominent even when their share is increasing in the organized sector. It is expected to grow from 2.6% of the non-agricultural workforce or 1.5% of total workforce (2020-21) to 6.7% and 4.1% (2029-30). (India's Booming Gig and Platform economy: Perspectives and Recommendations on the future of work, 2022)

3. Data analysis

Using the abovementioned methodology we have tabulated the number of gig workers in India in 3 time periods. As expected, we find that the estimate of the study is higher than the NITI Aayog report. Further we perform the process for males and females separately which helped us present the gender disaggregated data.

Some of the key findings from the data are given below. The estimation results reveals that the number of gig workers in India during 2017-18 is 11.98 million as opposed to 52.6 lakhs reported by NITI Aayog. This is 0.08 percent of the total urban workforce. In 2019-20, the total number of gig workers is 13213670 or 13.21 million as opposed to 68 lakhs mentioned in the report. These numbers seem more accurate considering the growth and penetration of gig workers in India during and after COVID. As expected after covid in 2022-23 we see a slight dip in the number of gig workers to 13.03 million. This may be due to people getting into regular jobs post the pandemic shock and revival of other traditional sectors in the economy. But still, we see that it is just a small dip in the number and we can expect this proportion to rise in the future due to new technology and innovation in all the sectors of our economy.

Urban gig workers, million	All	Male	Female
2017-18	11.98	10.92	1.25
2019-20	13.21	11.48	1.79
2022-23	13.03	11.36	1.84

During these three years considered we find that gender wise trends in growth of gig workers follow a similar pattern. Compared to male workers, female gig workers are very less in number. This can be attributed to the existing social norms about women taking part in income earning activities. The difficulties they may face during the rendering of service due to the lack of rules regarding safety at workplace may also affect female participation. But as proved in earlier papers we acknowledge the fact that there are strong reasons like flexibility at work and temporary nature of work which encourage more women to enter the gig economy compared to other traditional sector. Yet their share compared to male workers remain abysmally low which matches with the general trends of jobs in Indian labor market. Another important fact is that while after COVID the total number of gig workers and the number of male gig workers recorded a dip, the number of female workers were on the rise. But the number of gig workers as a percentage of total female urban workforce have declined in the post COVID period when compared to 2019-20. This can be due to an increase in the number of female workforces, not just in gig work but in other sectors as well.

The share of gig workers as a percentage of total urban workforce in all three years of study doesn't show much variation. It is more or less stable between 0.07 to 0.08 percentage. Hence there is no evidence for gig workers share immensely increasing during COVID compared to 2017-18 or massively dropping after the revival of economy post COVID.

Urban gig workers as % of total urban workforce	All	Male	Female
2017-18	0.08	0.09	0.042
2019-20	0.08	0.089	0.048
2022-23	0.071	0.081	0.042

Results and discussion

We conduct some more analysis to understand more about the characteristic of gig workers. The gender wise distribution reveals that female gig workers are less than 15% of total gig workers in India in all the time periods studied. The share increased by 3 percentage points from 2017-18 to 2019-18. There isn't much change in the distribution between 2019-20 and 2022-23. This result therefore doesn't help us in finding variation in the female gig workers' share during and post COVID.

Year	% male	% female
2017-18	89%	11%
2019-20	86%	14%
2022-23	86%	14%

Education level was used as a characteristic to identify gig workers. General education level above 8 is used for this purpose. The share of gig workers in categories 8,10,11,12 is higher than non-gig workers in 2017-18, 2019-20 and 2022-23. We see a larger share of gig workers in education levels of 8,10 and 12. Although through the time period studied, we see the share of gig workers in 8 reducing and that in 10 and 12 increasing. We further tabulate the gender wise education distribution of gig workers. In all the categories male gig workers have a higher share compared to female gig workers which is expected. But while moving from 8 to the highest education level of 13, we see the share of female gig workers increasing. This proves that of the share of female gig workers in India, a larger share is highly educated category.

Year	8	10	11	12	13
2017-18	34%	27%	3%	29%	6%
2019-20	31%	28%	3%	31%	7%
2022-23	30%	30%	3%	31%	6%

Year	8		10		11		12		13	
	M	F	M	F	M	F	M	F	M	F
2017-18	92%	8%	90%	10%	90%	10%	86%	14%	83%	17%
2019-20	89%	11%	88%	12%	91%	9%	82%	18%	82%	18%
2022-23	88%	12%	87%	13%	93%	7%	83%	17%	79%	21%

While examining the age category of gig workers we find that most of them are in 15-29 and 30-39 age group. This confirms our assumption that gig workers are younger compared to other sectors. There are no stark differences in the share across the 3 different time periods. Therefore we can't draw any pattern with age distribution before, during and after COVID.

	15-29	30-39	40-59	60 and above
2017-18	41%	39%	20%	0%
2019-20	44%	37%	20%	0%
2022-23	39%	40%	21%	0%

The gender disaggregated data of gig workers in different age groups reveals that female share is higher in 15-29 age group. It is the lowest in 40-59 age group. This can help us conclude that female gig workers would be on average younger than their male counterparts.

	15-29		30-39		40-59		60+	
Year	M	F	M	F	M	F	M	F
2017-18	86%	14%	90%	10%	93%	7%	0%	0%
2019-20	84%	16%	89%	11%	89%	11%	0%	0%
2022-23	85%	15%	86%	14%	87%	13%	0%	0%

Lack of information of gig workers and their nature of occupation limits our understanding about the growth prospects of the nation. Workers are devoid of all kinds of social security benefits including accident insurance. There are no acts or rules regulating the gig sector which means that the workers can be subject to a lot of exploitation in terms of working hours, wages etc.

4. Conclusion

The need for a nationwide enumeration of gig workers is getting intensified with the multifold rise in workers. The estimations based on sample or classification of potential gig workers are not substitutes for a comprehensive enumeration. If workers are protected with insurance, workplace security and other benefits, a lot more people are likely to join the platform economy, which is flexible and enables a person to have a better work life balance. But over regulation can also disincentivise the employers in hiring more workers. So, there should be clear balance maintained for the good of both workers and employers.

Safeguarding the platform workers through government support and regulation is important as enumeration. Some of the states in India have taken measures to ensure worker protection. Rajasthan government in 2023, passed the Rajasthan Platform based gig workers (Registration and welfare) Bill. It mandates the registration of gig workers under the state government which enables them to avail the social security benefits. It also mandates the establishment of a welfare board. Karnataka government has announced the implementation of insurance cover worth 4 lakh rupees to gig workers in 2023.

The Government of Kerala constituted a technical Committee on July 2024 to study the problems faced by the Platform Based/Online food delivery Workers and to formulate general guidelines regarding service/ wage provisions of Online Food Delivery workers in the State. Labour Minister V Sivan Kutty had unveiled plans for a comprehensive Kerala State Platform Based Gig Workers (Registration and Welfare) Bill, 2024. The proposed bill aims to address the issues faced by gig workers by providing legal protection, improved welfare, guaranteed decent working conditions,

and economic security. According to recent information, the bill has been sent to law department for consideration and is expected to be introduced in the next Assembly session. Such initiatives will help in reaping more benefits out of platform economy

(Thanking Prof K.S Hari, Gokhale Institute of Politics and Economics, Satheesha B, Gokhale Institute of Politics and Economics)



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The impact of foreign institutional investment and exchange rate on the index of industrial production in India : The ARDL bounds testing approach

Roy Scaria & Anjana C M

Abstract

Since opening capital market in 1992, Foreign Institutional Investment in India increased tremendously along with achieving good overall economic growth rate. Many a times, the FII investment was highly volatile hitting the stability of the financial sector and the industrial development. This paper intends analysing the short run and long run impact of the FII investment on the level of industrial production in the country. The ARDL bounds testing approach shows that significant short run as well as long run dynamics exists among the variables under study. The pairwise Granger causality test confirmed the unidirectional causality from FII investment to industrial production, instead of bidirectional causality. The FII investment in India, a nominal variable affects the industrial production in the country, a real variable and contributes to economic growth.

Keywords: *FII investment, Index of Industrial Production, ARDL Bounds Testing, Exchange Rate*

1. Introduction

September 14, 1992 was a landmark in the economic history of India. She opened up her earlier restricted and closed capital market for Foreign Institutional Investors (FIIs) in continuation of the globalisation policy initiated in the early years of 1990s to encourage the inflow of foreign investment which was hoped to supplement and stimulate scarce domestic investment. For the last two and a half decades, Foreign Institutional Investment reached soaring heights, many times

in a volatile manner and at the same time she achieved fairly good growth rates nearing double digits. The foreign investment in the country is expected to boost the industrial production and thereby contributing to the overall growth trajectory of the nation. This study examines the statistical relationship between foreign institutional investment in the presence of varying exchange rates. The question whether FII investment cause the level of industrial production in India in the long run remains unanswered till today.

The term FIIs is commonly used to refer the companies that are established or incorporated outside India and are investing in the financial markets of India by registering themselves with the Securities & Exchange Board of India (SEBI). They include a wide variety of cross boarder portfolio investment institutions such as overseas pension funds, mutual funds, investment trusts, asset management companies, nominee companies, banks, institutional portfolio managers, university funds, endowments, foundations, charitable trusts, charitable societies, a trustee or power of attorney holder incorporated or established outside India proposing to make proprietary investments on behalf of a broad-based fund. Foreign Institutional Investors (FIIs) are allowed to invest in the primary and secondary capital markets in India through the Portfolio Investment Scheme (PIS) administered by the Reserve Bank of India (RBI). Under this scheme, FIIs can acquire shares/debentures of Indian companies through the stock exchanges in India subject to a ceiling of 24 per cent of the paid-up capital of the Indian company (20 per cent for public sector banks, including the State Bank of India). The RBI carefully monitors the ceilings on FII investments in Indian companies on a daily basis and publishes a list of companies allowed to attract FII investments with their respective ceilings. Now over 1450 FIIs have been registered in Indian stock exchanges.

Foreign Institutional Investors (FIIs), a lesser-known group, have played an important role in India's economic narrative during the last two and a half decades. FIIs investment affects the growth of the economy indirectly by improving equity market performance of the host country and also tells upon their corporate governance issues. After 1992, the FII investment flow dramatically increased in India; the SENSEX reached a high of 21,206.77 points in January 2008 as a culmination after a bull rally and thereafter its lifetime high as 85978.25 in September 2024. However, FIIs capital flows are often viewed as double edged sword. On one hand, in emerging economies that undergo liberalization in the initial phase, FIIs investment improves market efficiency and leads to reduction in the cost of capital. On the other hand, FII's trade exacerbate volatility in the stock markets of the host country. In India although, the FII investment was as high as US \$17 billion in a single year, 2007, the global financial crisis pulled out a record \$13 billion in 2008, the largest outflow since the inception of the Bank's scheme. Since FIIs investment can be withdrawn any time, it is called 'hot money'. The Indian capital market lost the status as a "safe heaven" for foreign portfolios investors

as they seem destined for a withdrawal of nearly 2,000 million dollars of the so-called 'hot money' in 2016.

The period from 2008 to 2013 has been very critical for the world economy and for the Indian economy. In 2008, the world faced the Global Financial Crisis, and in 2011, it confronted the Eurozone crisis. The Global Financial Crisis led to a global economic recession, as the USA, being a major economic powerhouse, experienced a slowdown. FIIs contribute to almost 13% of the entire market capitalization at National Stock Exchange in India. Talking about FIIs investment, this has been continuously grown over years except 1998-99 and 2008-09 when FIIs sold more than they purchased in Indian stock market India witnessed a highest inflow of FII.

There are many root causes which have a long run dimension that propel the rising FII investment in India. The foremost reason is the increased recognition that Indian economy has a long-term growth potential. India offers favourable demographics and has quickly established its competitive advantage in many spheres including software. A second reason is her ability to produce goods and services at a remarkably low cost with competitive labour. However, the short-term expectations that give rise to oscillations which are described as 'market sentiment', more importantly in the downward direction and its cyclic recovery to the boom, are usual. These expectations end up in an element of speculation and high mobility in FII's capital flows and eventually bring forth high level of volatility in stock market of host country. Speculation once started, happens to be cumulative causing the price or return indices deviate from fundamental values accordingly with subsequent reversals in response to FII investment flows. The small investors are likely to fell in serious concern of whether prices accurately reflect their expectations about the present value of future cash flows. Thus, the FII capital flows spurt by market sentiments adversely affects investment decisions of small investors. Prolonged instability has an adverse impact on the investors' decisions pertaining to the effective allocation of resources especially on investment in stock markets. Investors are hesitant to hold various stocks due to uncertainty and may demand high return to cover up high risk, eventually leads to increased cost of capital and reduced physical investment. The usual behaviour in a stock market is to buy financial assets when the prices are declining and sell when prices are increasing (Gordon and Gupta, 2003). Dornbusch and Park (1995) explained the same situation as 'positive feedback trading' strategies that make stock price overreact to changes in fundamentals and such trading strategies may cause bubbles and crashes in local markets. Positive feedback trading is meant the practice of buying shares as prices move up and selling them as prices come down.

Many of the current research is found to be centred on the dynamics of FII investment flows and stock market returns as well as stock market performance or instability. Some researchers argued that the investment by FIIs gave rise to volatility in the stock market (Karmakar, 2006; Upadhyay, 2006; Singh, 2004; Biswas, 2005; Bhattacharya and

Mukherjee, 2005; Pal, 2005; Batra, 2003; Porwal and Gupta, 2006; Kim and Singal, 1993; Radelet and Sachs, 1998; Banerjee and Sarkar, 2006; and Mohan, 2006). The cumulative nature of instability pushes the stock prices away from fundamentals (Bohn and Tesar, 1996; Berko and Clark, 1997). Liquidity as well as volatility was highly influenced by the FIIs investment which, in turn depends on stock market returns, rate of inflation and ex- ante risk (Krishna, 2009 and Kulwantraj, 2004). Behera (2010) found that FIIs investment have a positive impact on both liquidity and returns and his GARCH estimates suggest FIIs investments increase volatility in Indian stock market. Many researchers noticed strong positive correlation between FIIs inflow and index of stock markets (Mamta et.al 2012; Anubha, 2013). Many other investigators noticed that FIIs investment and equity returns have strong significant positive correlation (Agarwal, 1997; Chakrabarti, 2001; Nair and Trivedi, 2003). Patel (2013) found bidirectional causality between FII investment and stock market return. However, Gupta (2011) found that FIIs investment flows are unpredictable and its movement depends on market sentiment and hence lead to increased volatility reflected in severe price fluctuations in Indian stock market. In a recent study about mutual interaction among manufacturing stock prices, Consumer Price Index (CPI), call money rates, and exchange rate of rupee in India, Scaria (2024) found that manufacturing stock prices could not be traced with respect to any of these variables other than the previous values of the manufacturing stock prices.

However, a very few studies examined the relationship between FII investment and Index of Industrial Production (IIP) (Srikanth & kishore 2012; Himachalapathy, 2012 and Sharma & Mehta, 2012). These studies found that a better position of the latter hails more of the foreign investment. The Index of Industrial Production (IIP) is a significant indicator that monitors an economy's performance and development across multiple sectors, including manufacturing, mining, and power. It is a reflection of a country's industrial activity.

The foregoing review shows that the FII investment is a nominal variable affecting mostly the financial sector, its instability and the nominal return on capital investment. It is also pertinent that a good production environment reflected in IIP is essential for attracting significant inflow of FII investment.

Here, a crucial question arises that whether a sizable net inflow of FII investment in India affects the industrial production in the country or whether the relationship is bidirectional. Do there exist any long run relationship between the industrial production and FII investment and if it does so, what is the rate at which the error is corrected in the short period. Therefore, this paper examines the cointegrating relationship, if any, between the IIF investment, a nominal variable and the industrial production represented by Index of Industrial Production (IIP), a real variable. FIIs may have a substantial influence on a country's economic health and industrialization. Positive FII flows can raise capital availability, reduce borrowing costs, and boost

industrial activity, all of which can have an impact on the IIP. Volatile or negative FII flows, on the other hand, can cause economic instability, reducing industrial production and overall economic growth.

The proposed analysis is complete with by adding the exchange rate also in the picture. The exchange rate of Indian rupee in terms of US dollar, which is regarded as the universal currency, is the value of one unit of the US dollar, expressed in terms Indian rupee. The Reserve Bank of India (RBI), is the primary authority for regulating and monitoring foreign exchange in the country. The RBI publishes daily reference exchange rates, which are widely used by businesses, financial institutions, and researchers. The exchange rate is a critical economic indicator as it directly impacts a country's international trade, investment flows, and overall economic stability. It influences the cost of imports and exports, affecting the trade balance and competitiveness of domestic industries in the global market. For businesses, it determines the profitability of cross-border transactions, while for investors, it affects the returns on foreign investments.

2. Research Methods

2.1. Estimation

We use time series estimation techniques and related tests which include Augmented Dickey Fuller tests for stationarity, ARDL Bounds test, and Granger causality test. After a detailed examination of the data set, the most suitable model for studying the impact of macroeconomic dynamics among Index of Industrial production, FIIs investment and exchange rate, is found to be an ARDL model with suitable lag lengths and bounds test representation. The validity of the model is confirmed by the error diagnostic test such as Breush Godfrey Serial Correlation LM test and coefficient stability tests such as cumulative sum of recursive residuals (CUSUM) and cumulative sum of squares of recursive residuals (CUSUM squares).

2.2 ARDL Bounds test for cointegration

The ARDL cointegration technique is useful to empirically analyse the long-run relationships and short run dynamic interactions among the variables especially when the sample size is small and finite, and variables are integrated of different order, say one, zero or fractionally integrated (Pesaran and Shin, 1999 and Pesaran et al., 2001). The long run estimates obtained by applying the model are unbiased (Harris and Sollis, 2003).

As a first step, we estimate the ad hoc basic equation

$$IIP_t = \alpha_1 + \beta_1 FII_t + \beta_2 ER_t + e_t \dots\dots\dots (1)$$

Where, Index of Industrial Production, Foreign Institutional Investment, Exchange Rate and the error term. Then we estimate the ARDL model to capture the effects of Foreign Institutional Investment and Exchange Rate on the Index of Industrial Production based on equation (1).

$$IIP_t = \alpha_1 + \sum_{i=1}^p \delta_i IIP_{t-i} + \sum_{j=0}^{q_1} \gamma_j FII_{t-j} + \sum_{j=0}^{q_2} \beta_j ER_{t-j} \dots\dots\dots (2)$$

Where are optimum lag lengths for the Index of Industrial Production, Foreign Institutional Investment and Exchange Rate respectively. Equation (2) gives instantaneous impact of the regressors on . To detect the presence of long run equilibrium and possible error correction, we specify the reparametrized model as given in equation (3) which enables short run and long run analysis.

$$\Delta IIP_t = \alpha_1 + \sum_{i=1}^{p-1} \delta_i \Delta IIP_{t-i} + \sum_{j=1}^{q_1-1} \gamma_j \Delta FII_{t-j} + \sum_{j=1}^{q_2-1} \beta_j \Delta ER_{t-j} + \lambda_1 IIP_{t-1} + \lambda_2 FII_{t-1} + \lambda_3 ER_{t-1} + \varepsilon_t \dots\dots\dots (3)$$

The bounds test procedure is based on the F-statistic for cointegration analysis. Considering equation (3), we test the null hypothesis $H_0 : \lambda_1 = \lambda_2 = \lambda_3 = 0$ or of no cointegration, against the alternative hypothesis $H_1 : \lambda_1 \neq \lambda_2 \neq \lambda_3 \neq 0$. The test provides two sets of critical values the lower and upper bounds that cover all possible classifications of the regressors into purely I (0), purely I (1) or mutually cointegrated variables. If the computed F-statistic is lower than the lower bound, the null hypothesis cannot be rejected. There is no cointegration. If the F statistic is greater than the upper bound, the null hypothesis is rejected. If the F-statistic lies in the interval, the test is said to be inconclusive. The rejection of the null hypothesis of no cointegration confirms the existence of a long-term relationship in the model. In this case, equation (3) can be rewritten to derive the lagged error correction term (*ECTt-1*) in the equation (4).

$$\Delta IIP_t = \alpha_1 + \sum_{i=1}^{p-1} \delta_i \Delta IIP_{t-i} + \sum_{j=1}^{q_1-1} \gamma_j \Delta FII_{t-j} + \sum_{j=1}^{q_2-1} \beta_j \Delta ER_{t-j} + \psi ECT_{t-1} + \varepsilon_t \dots\dots\dots(4)$$

Where *ECT-1* represents the deviation of ΔIIP_t from its long-run equilibrium ψ represents the adjustment or error correction parameter that brings back equilibrium following a disturbance in the long-run. For ΔIIP_t error-correct, ψ should be negative and statistically significant ε_t is assumed to be a serially uncorrelated error term.

2.3. Data for measurement of variables

The data set used for this study is collected from secondary sources such as the Data Base on Indian Economy (DBIE) of Reserve Bank of India (RBI) and the official website for Central Depository Services Limited (CDSL) and Federal Reserve Bank of St. Louis for the period from April 2016 to March 2024 covering 96 observations. The monthly estimates for the variables listed below have been collected.

- a) The monthly Index for Industrial Production (IIP) with 2011-12=100 from RBI's DBIE.
- b) The monthly FFI/FPI net investment data collected from CDSL is taken as a measure of Net Foreign Institutional Investors' Investment in India.
- c) The monthly spot Exchange Rate of Indian Rupee against US dollar (country-wise) collected from the website of Federal Reserve Bank of St. Louis.

3. Results and analysis

The first and foremost procedure in time series analysis is to determine the order of integration which makes the data sets stationary. Table 1 presents ADF stationarity test result of the variables under study which shows that the data series become stationary with different order of integration; Index of Industrial Production and Foreign Institutional Investment in levels, I (0) and the Exchange Rate in first differences, I (1). The ADF test statistic of stationary variables will be less than their corresponding critical values, in this case, at five per cent level. The unit root tests is also essential to ensure that none of the variables is I(2), as including I(2) variables in the model leads to spurious regression. In the presence of variables integrated of order two, the values of F statistics provided by Pesaran et al. (2001) cannot be interpreted (Table 1).

Table 1 ADF unit root test result

S.No	Variable	Variables in levels I (0)		Variables in first differences I (1)	
		ADF Value	Prob.	ADF Value	Prob.
1	Index of Industrial Production	-4.059066	0.0018	-	-
		-2.892200*	0.05	-	-
2	Foreign Institutional Investment	-6.231801	0.0000	-	-
		-2.892200*	0.05	-	-
3	Exchange Rate of Ruppy	-0.148674	0.9634	-8.622936	0.0000
		-2.892200*	0.05	-2.892536*	0.05

**, Critical ADF values at 5 per cent level of significance*

Source: Author's calculations

Since the variables are stationary with different order of integration, the appropriate method to check the existence of cointegrating or dynamically stable long run relationship and analyse the characteristics of that relationship is the ARDL bounds test approach. The optimum lag length is automatically determined based on Akaike Information Criteria (AIC). If cointegration is detected, this method is useful to analyse the short run error correction coefficients as well as the coefficients for long-run relationships Table 2.

Table 2 ARDL Bound Test

ARDL Bounds Test		
Sample: 2016M06 2024M03		
Included observations: 94		
Null Hypothesis: No long-run relationships exist		
Test Statistic	Value	k
F-statistic	6.941185	2
Critical Value Bounds		
Significance	I (0) Bound	I (1) Bound
5%	3.79	4.85

Source: Author's calculations

The ARDL bounds test is based on F statistic, the estimated value of which in the present study, 6.94 exceeds the five per cent critical value for I (1) bound, 4.85. Therefore, the null hypothesis of no long run relationship or no cointegration can be rejected. Cointegrated relationship exists in the ARDL model with Index of Industrial Production as the dependent and Foreign Institutional Investment and Exchange Rate as the explanatory variables. The cointegrating and long run equations are estimated and the regression output is shown in Table.3.

Table 3 The cointegration with long run relationship

ARDL Cointegrating And Long Run Form				
Dependent Variable: IIP				
Selected Model: ARDL (1, 2, 0)				
Sample: 2016M04 2024M03				
Included observations: 94				
Cointegrating Form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(FII)	0.000017	0.000035	0.491499	0.6243
D(FII(-1))	0.000084	0.000038	2.233526	0.0280
D(ER)	0.389068	0.176778	2.200888	0.0304
CointEq(-1)	-0.377301	0.086185	-4.377782	0.0000
Cointeq = (ECTt-1) = IIP - (0.0002*FII + 1.0312*ER + 54.0148)				
Long run coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
FII	0.000243	0.000118	2.053610	0.0430
ER	1.031188	0.408902	2.521848	0.0135
C	54.014836	29.991475	1.801006	0.0751

Source: Author's calculations

In the cointegrating relationship the current change in Foreign Institutional Investment does not significantly affect Index of Industrial Production. The coefficient is relatively very small and its standard error is relatively very high leading a very small t value. Although the coefficient for one period lagged change in the Foreign Institutional Investment is small, its standard error is very small and hence with a high t value leading to the rejection of the null hypothesis that the coefficient is not significant. The impact parameter is significant at five per cent level. A one unit, that is Rs. one crore, change in the Foreign Institutional Investment leads to 84 by 10000s per cent change in the Index in the same direction.

The current change in the exchange rate has a significant impact on the Index of Industrial Production too. The coefficient value. 0.3891 indicates that when Indian rupee depreciates one rupee against Dollar, the change in her Index of Industrial Production in the current period increases by 38.91 per cent.

The error correction coefficient has the expected negative sign and its value - 0.377301 is highly significant with a very low p value. It means that a deviation from the long run equilibrium will be corrected about 37.37 per cent in the current period and this will repeat period by period.

The long run coefficient for Foreign Institutional Investment and Exchange Rate are significant at five per cent level. Although significant, the coefficient for Foreign Institutional Investment is very small as 0.000243. However, the result has economic value that a variable considered nominal affects a real variable.

The ARDL bounds testing approach is based on the assumption that the model errors are not serially correlated. Therefore, Breusch-Godfrey serial correlation LM test is conducted and its result states that the errors are not serially correlated (Table 4). The probabilities for F statistic and chi square statistic do not give sufficient evidence for rejecting the null hypothesis that there is no serial correlation Table 4.

Table 4 Breusch-Godfrey Serial Correlation LM Test

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	1.049058	Prob. F (2,86)	0.3547
Obs*R-squared	2.238673	Prob. Chi-Square (2)	0.3265

Source: Author's calculations

The ARDL bounds testing approach model estimated in Table 3 need not give information about the causality or direction of change. The term causality implies, the cause-and-effect relationship among variables established based on the premise that 'future cannot affect the past'. Always the cause variable changes first and thereafter the effect variable. The pair wise Granger causality test is run based on this principle and the result obtained in the current study is presented in Table 5.

Table 5

Pairwise Granger Causality Tests			
Sample: 2016M04 2024M03			
Lags: 4			
Null Hypothesis:	Obs	F-Statistic	Prob.
Between FII and IIP			
FII does not Granger Cause IIP	92	5.85279	0.0003
IIP does not Granger Cause FII		0.13009	0.9710
Between ER and IIP			
ER does not Granger Cause IIP	92	4.21044	0.0037
IIP does not Granger Cause ER		1.58789	0.1852
Between ER and FII			
ER does not Granger Cause FII	92	0.76364	0.5519
FII does not Granger Cause ER		1.48135	0.2153

Source: Author's calculations

The pair wise Granger causality test offers an F statistic, the significance of which at the five per cent level indicates whether causality is running from a variable to another variable. If the F statistic is significant based on probability, causality is running from the independent variable to the dependent variable. Otherwise, we are forced to accept the null hypothesis that there is no causality. Table 5 has three parts; each of them provides the result of causality for a pair of variables in the model we analysed. In each case, the null hypothesis is that the explanatory variable does not cause the dependent variable. By checking the probability value of F statistic and since the p value of the test statistic is less than 0.05, it can be stated that;

1. FII Granger cause IIP
2. ER Granger cause IIP

In all other pairs, the null hypothesis of no causality cannot be rejected with available evidence. Therefore, change in the Foreign Institutional Investment and Exchange Rate cause the change in industrial production index, but the opposite is not confirmed.

Conclusion

The present study attempts to draw information about the functional relationship between industrial production level as represented by Index of Industrial Production and its regressors, Foreign Institutional Investment and Exchange Rate. The analysis is carried out with the ARDL bounds testing approach over the period 04, 2016 to 03,2024, during which a stable cointegrating relationship was detected among these variables.

In the short run, although the current period change in the Foreign Institutional Investment does not affect the change in the indicator of industrial production, a one period lagged change in the Foreign Institutional Investment significantly affects it. Also, the current period change in the exchange rate is found to positively affecting the Index of Industrial Production too. The negative error correction coefficient implies that the extent of disequilibrium is corrected about 37 per cent each period over time. In the case of long run too, the regressors have significant coefficient that reflect their positive impact on the explained variable, the Index of Industrial Production.

The Granger causality test, however, did not find that causality is running from industrial production to Foreign Institutional Investment that a better or high position of the former is a precondition for the positive net inflow of the latter. The causality test suggests that causality is running from Foreign Institutional Investment and Exchange Rate to the Index of Industrial Production. An important highlight of confirming that causality is running from FII to IIP. Foreign Institutional Investment has significant impact on the industrial production level, which is a major component of the annual Gross Value Added (GVA) in a country.



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Exploring Marilyn L Pinto's ADEPT Theory on budgeting practises of self employed individuals

Rema Devi V N

Abstract

Self-employment offers flexibility and autonomy but comes with significant financial challenges, particularly when it comes to budgeting and managing irregular income. Without the predictable pay checks associated with traditional employment, self-employed individuals often face uncertainty, which can lead to stress and inefficient financial management. The ADEPT framework-comprising Agency, Discomfort, Education, Purpose, and Thinking Better-can potentially provide valuable insights into how these individuals manage their finances in such a context. This study aims to explore how the ADEPT framework influences the budgeting strategies and financial decision-making of self-employed individuals, specifically focusing on how each of the five components impacts their ability to manage irregular income.

Keywords: *Self-employment, financial management, budgeting, irregular income, ADEPT framework, financial decision-making, financial literacy, income stability.*

1. Introduction

Self-employment offers flexibility and autonomy but comes with significant financial challenges, particularly when it comes to budgeting and managing irregular income. Without the predictable pay checks associated with traditional employment, self-employed individuals often face uncertainty, which can lead to stress and inefficient financial management. The ADEPT framework-comprising Agency, Discomfort, Education, Purpose, and Thinking Better-can potentially provide valuable insights into how these individuals manage their finances in such a context. This study aims to explore how the ADEPT framework influences the budgeting strategies and financial decision-making of self-employed individuals, specifically focusing on how each of the five components impacts

their ability to manage irregular income.

Statement of the Problem

Self-employed individuals face significant financial challenges due to the irregularity and unpredictability of their income. Unlike traditionally employed individuals who receive fixed salaries, self-employed persons must develop effective budgeting strategies to ensure financial stability. However, the absence of structured financial guidance often results in inefficient financial management, stress, and vulnerability to financial instability. The ADEPT framework-comprising Agency, Discomfort, Education, Purpose, and Thinking Long-Term-offers a potential lens to understand how self-employed individuals navigate financial decision-making and budgeting effectiveness. This study seeks to explore the relationship between the ADEPT factors and the budgeting practices of self-employed individuals, aiming to identify key elements that contribute to improved financial management in self-employment contexts.

Objectives of the Study

1. To analyse how self-employed individuals use the ADEPT framework (agency, discomfort, education, purpose, thinking better) to manage the challenges of budgeting with irregular income.
2. To investigate how the ADEPT framework (Agency, Discomfort, Education, Purpose, Thinking Better) influences the budgeting strategies and financial decision-making of self-employed individuals.

Significance of the study

This research contributes to the growing discourse on financial literacy and management among self-employed individuals. By evaluating the ADEPT framework, it seeks to provide a practical guide for improving financial stability and resilience. The findings will not only benefit self-employed individuals but also inform policymakers, educators, and financial advisors about the utility of structured frameworks in addressing financial literacy gaps.

ADEPT framework

The **ADEPT framework**-comprising *Agency, Discomfort, Education, Purpose, and Thinking Better*-can potentially provide valuable insights into how these individuals manage their finances in such a context. Marilyn L. Pinto, Founder of KFI GLOBAL, an education company that specialises in teaching individuals how to handle money smartly and responsibly, propels to the forefront the ADEPT

Research Methodology

This research aims to examine the relationship between ADEPT factors and the

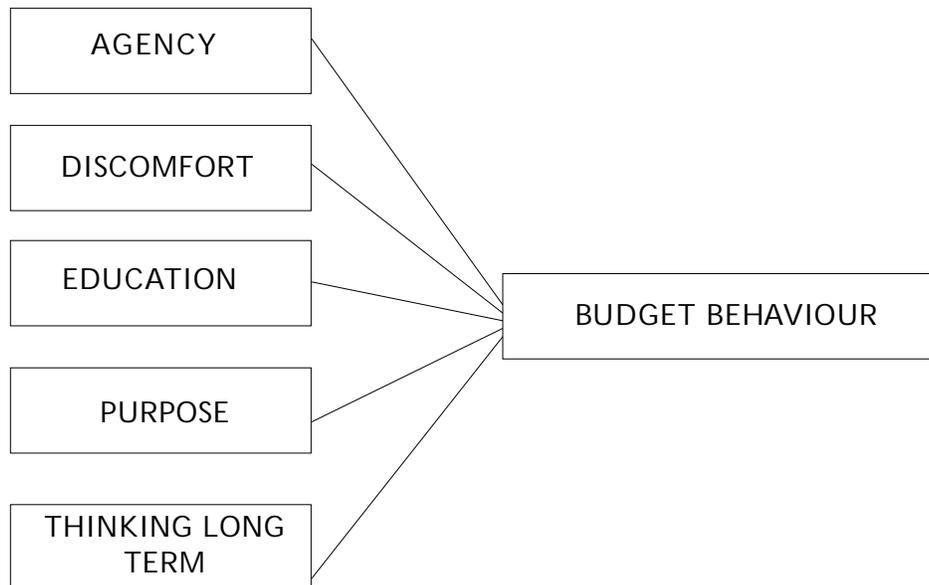
budget effectiveness of self-employed individuals. The study was conducted among self-employed persons in Kerala, with data collected from a sample of 244 respondents. A descriptive research design was adopted, and participants were selected using the purposive sampling method. Primary data were gathered through a structured interview schedule to ensure comprehensive insights into their financial behaviors and budgeting practice

Hypothesis of the study

- H1: There is a significant impact of Agency on Budgeting Behaviour.
- H2: There is a significant impact of Discomfort on Budgeting Behaviour..
- H3: There is a significant impact of Education on Budgeting Behaviour.
- H4: There is a significant impact of Purpose on Budgeting Behaviour.
- H5: There is a significant impact of Thinking Long-Term on Budgeting Behaviour.
- H6: The ADEPT framework (Agency, Discomfort, Education, Purpose, and Thinking Long Term) has a significant combined effect on budgeting effectiveness
- H7: Demographic factors (such as age, gender, income level, educational level, and years of experience) significantly influence Budgeting Behaviour among self-employed individuals.

Variables of the study

Variables	Definitions
AGENCY	The individual's sense of control over financial decisions and confidence in managing finances.
DISCOMFORT	Willingness to make uncomfortable financial choices, such as cutting discretionary expenses, to achieve financial goals.
EDUCATION	The level of financial literacy, knowledge of budgeting tools, and efforts to seek financial education
PURPOSE	Clarity of financial goals and alignment of budgeting practices with these goals.
THINKING LONG TERM	Focus on long-term financial planning, prioritizing future stability over short-term convenience.
BUDGET EFFECTIVENES	Includes behaviours such as regular budgeting, adherence to budgets, tracking expenses, separating personal and business finances, and overall financial management effectiveness.

Conceptual model**Literature Review**

Self-employed individuals face financial uncertainty due to irregular income, leading to budgeting difficulties and financial stress. Effective budgeting strategies and financial literacy are essential for stability (Collins & Morduch, 2022; Lusardi & Mitchell, 2021).

The ADEPT framework (Agency, Discomfort, Education, Purpose, Thinking Long-Term) provides insights into financial decision-making. It highlights the importance of control, resilience, literacy, goal-setting, and long-term planning in financial management (Pinto, 2021; Sardeshmukh & Smith-Nelson, 2023). Higher financial literacy improves budgeting effectiveness, reduces debt risk, and enhances financial resilience. Education plays a crucial role in equipping self-employed individuals with essential money management skills (Fernandes et al., 2022; Huston, 2023). Behavioral finance suggests that self-efficacy, cognitive biases, and stress influence financial behaviors. The ADEPT framework's Discomfort component helps individuals develop resilience and adapt to financial uncertainty (Thaler & Sunstein, 2022; Akerlof & Shiller, 2023). Self-employed individuals who engage in long-term financial planning, such as retirement savings and investments, experience greater financial security. Thinking Long-Term is crucial for financial sustainability (Benartzi & Thaler, 2023; Modigliani & Brumberg, 2023).

Data Analysis and Interpretation

Table : Reliability Statistics

Reliability Statistics	
Cronbach's Alpha	N of Items
.810	25

Source: Primary Data

The Cronbach's Alpha value of 0.810 for the 25 items indicates acceptable internal consistency. This means that the items in the questionnaire are generally reliable in measuring the same concept. An Alpha value above 0.8 is considered good, suggesting that the scale is consistent.

Results and Discussion

The results are represented in the form of tables, in classes or intervals, frequency and percentages. The following is the demographic profile of respondents:

1. Demographic characteristics of respondents

Table 1: Demographic Characteristics of Respondents

Sample Characteristics	Full Sample	
	n	%
Age		
22-30	165	67.6
31-40	20	8.2
41-50	10	4.1
51-60	27	11.1
Above 60	22	9
Gender		
Male	79	32.4
Female	165	67.6
Marital status		
Married	119	48.8
Unmarried	125	51.2
Educational level		
SSLC	13	5.3
Plus Two	45	18.4
Bachelor's Degree	125	51.2

Sample Characteristics	Full Sample	
	n	%
Master's Degree	43	17.6
Others	18	7.4
Income level		
Less than 100000	137	56.1
100000-200000	83	34
200000-300000	13	5.3
300000-400000	11	4.5
Above 400000	0	0

Note, N=244

Source: Primary Data

The demographic analysis of 244 self-employed individuals in Kerala reveals that the majority are young adults aged 22-30 (67.6%) and predominantly female (67.6%). Over half hold a Bachelor's degree (51.2%), yet a significant portion (56.1%) earn less than INR 100,000 annually. These findings highlight a well-educated, young, and female-dominated self-employed demographic facing economic challenges, underscoring the need for targeted financial support and effective budgeting strategies (table - 2).

2. Self-Employed Individuals' Financial Attitudes and Behaviours

Table 2 : Self-Employed Individuals' Financial Attitudes and Behaviours

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I can take control of my financial decisions	1.6%	3.3%	2.9%	33.6%	58.6%
I prioritize my spending based on my financial goals	0.0%	2.5%	3.7%	44.3%	49.6%
I set financial goals and work towards achieving them	0.0%	1.6%	5.7%	51.2%	41.4%
I seek advice from others when making financial decisions	0.0%	2.5%	3.7%	54.9%	38.9%
I often feel stressed about my financial situations	0.0%	6.1%	4.5%	43.4%	45.9%
I feel anxious when I think about my debt	0.0%	15.2%	8.6%	38.1%	38.1%

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I worry about not having enough money for the future	0.0%	9.8%	13.9%	49.6%	26.6%
I am concerned about making financial mistakes	0.0%	7.0%	1.6%	59.0%	32.4%
I have a good understanding of personal finance concepts	0.0%	0.8%	4.5%	61.5%	33.2%
I regularly seek out new information or resources to improve my financial knowledge	0.0%	9.4%	7.0%	55.3%	28.3%
I am confident in my ability to apply financial concepts to real-life situations	0.0%	13.1%	4.5%	54.9%	27.5%
I believe financial education is essential for achieving financial stability	2.0%	0.0%	2.5%	65.6%	29.9%
I have a clear vision for my financial future	0.8%	1.6%	8.6%	43.0%	45.9%
I regularly review and adjust my financial goals	0.0%	1.6%	9.8%	61.9%	26.6%
I prioritize my financial goals over short-term desires	0.0%	5.3%	11.9%	63.1%	19.7%
I am motivated to achieve financial stability	0.0%	3.7%	4.1%	68.9%	23.4%
I prioritize long-term financial goals over short-term gains	0.0%	1.6%	7.8%	70.1%	20.5%
I am willing to delay short-term gratification for long-term financial benefits	2.9%	4.1%	4.1%	68.9%	20.1%
I have a clear vision for my long-term financial future	2.9%	3.7%	9.0%	66.8%	17.6%
I regularly review and adjust my long-term financial plans	2.0%	2.9%	6.1%	68.9%	20.1%
Ability to create and adhere to a budget with irregular income	0.0%	0.8%	6.6%	54.5%	38.1%
Regular tracking of income and expenses for budget adherence	0.0%	2.5%	2.9%	57.4%	37.3%
Saving a portion of income despite fluctuations	0.0%	6.1%	4.5%	45.5%	43.9%
Perception of financial stability with irregular income	0.0%	14.8%	8.2%	40.2%	36.9%
Financial decisions based on long-term goals over immediate needs	0.0%	7.8%	16.0%	50.8%	25.4%

Note: SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree.

Interpretation:

The most strongly agreed-upon items indicate that respondents feel confident in taking control of their financial decisions and prioritizing spending based on their financial goals. A majority also express a commitment to long-term financial planning, regularly reviewing and adjusting their financial goals.

However, financial stress is a concern for many respondents, with a significant portion feeling anxious about debt and worrying about their financial future. While most respondents actively seek financial knowledge and resources to improve their understanding, some still perceive financial instability, particularly those with irregular income. Budgeting behaviours, such as tracking expenses and saving despite fluctuations, are widely practiced, though financial uncertainty remains a challenge for some

Regression Analysis**1. Effect of Agency on Budgeting Behaviour**

To study the effect of one independent variable (agency) on dependent variable (budgeting behaviour), regression analysis is used.

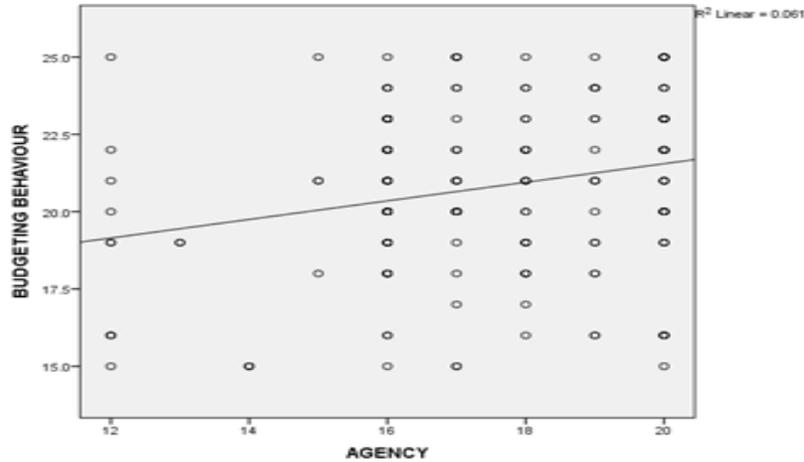
The hypothesis tests whether Agency significantly influences Budgeting Behaviour. The dependent variable Budgeting Behaviour (BB) was regressed on the predicting variable Agency (A) to test H1. Agency significantly predicted Budgeting Behaviour, $F(1, 242) = 15.632, p < 0.001$, indicating that Agency plays a significant role in shaping Budgeting Behaviour ($b = 0.300, p < 0.001$). These results clearly highlight the positive effect of Agency on Budgeting Behaviour. Moreover, $R^2 = 0.061$ shows that the model explains 6.1% of the variance in Budgeting Behaviour. The table below summarizes the findings (Table - 3).

Table 3: Regression Analysis for the Impact of Agency on Budgeting Behaviour

Hypothesis	Regression Weights	Beta Coefficient	R ²	F	p-value
H1	A→BB	0.246	0.061	15.632	0.000

Source: Primary Data

Agency has a statistically significant but weak positive effect on Budgeting Behaviour. This suggests that other ADEPT factors should also be considered to better explain Budgeting Behaviour.

Figure 1: Scatter Plot of Agency vs. Budgeting Behaviour

Source: Primary Data

The scatter plot for Agency and Budgeting Behaviour shows a clear positive trend, indicating that individuals who feel more in control of their financial decisions tend to engage in better budgeting practices. The data points are moderately clustered, suggesting a moderate positive relationship. This aligns with the regression analysis, where Agency significantly impacted Budgeting Behaviour ($b = 0.300$, $p < 0.001$, $R^2 = 0.061$). This suggests that self-employed individuals who actively take charge of their finances are more likely to manage their budgets effectively.

2. Effect of discomfort on Budgeting Behaviour

To study the effect of one independent variable (discomfort) on dependent variable (budgeting behaviour), regression analysis is used.

The hypothesis tests whether Discomfort significantly influences Budgeting Behaviour. The dependent variable Budgeting Behaviour (BB) was regressed on the predicting variable Discomfort (DISCOMFORT) to test H1. Discomfort significantly predicted Budgeting Behaviour, $F(1, 242) = 31.060$, $p < 0.001$, indicating that Discomfort plays a significant role in shaping Budgeting Behaviour ($b = 0.296$, $p < 0.001$). This suggests a positive relationship between Discomfort and Budgeting Behaviour. The model explains 11.4% of the variance in Budgeting Behaviour ($R^2 = 0.114$), suggesting a moderate influence of Discomfort on Budgeting Behaviour. The table below summarizes the findings:

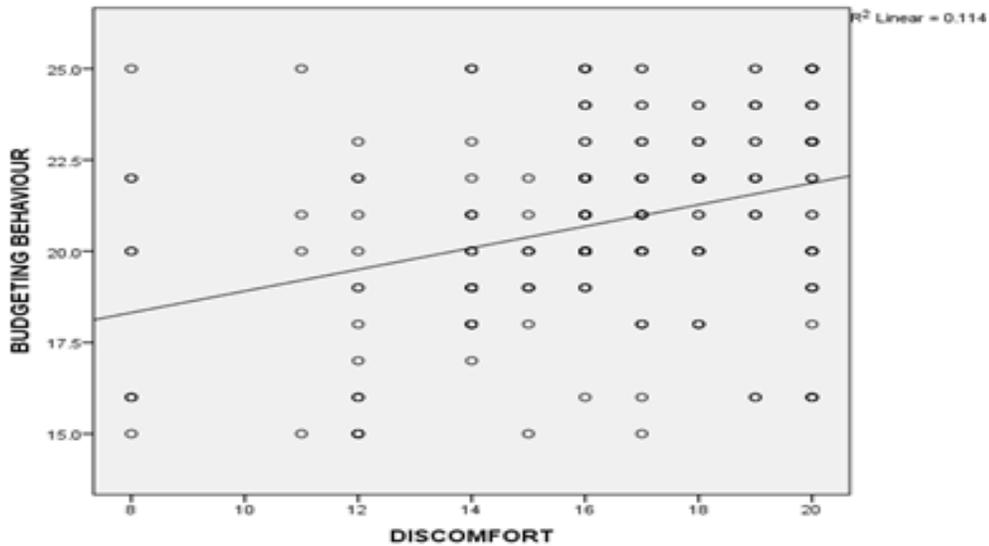
Table 4: Regression Analysis for the Impact of Discomfort on Budgeting Behaviour

Hypothesis	Regression Weights	Beta Coefficient	R ²	F	p-value
H1	D→BB	0.296	0.114	31.060	0.000

Source: Primary Data

Discomfort has a statistically significant positive effect on Budgeting Behaviour, suggesting that individuals who experience more discomfort are likely to exhibit stronger budgeting behaviors. However, other factors should also be explored to explain budgeting behaviour more comprehensively.

Figure 2 : Scatter Plot of Discomfort vs. Budgeting Behaviour



Source: Primary Data

The scatter plot for Discomfort and Budgeting Behaviour reveals a stronger positive trend, indicating that individuals who experience higher levels of financial stress are more likely to adopt structured budgeting habits. The data points are more tightly clustered compared to Agency, reinforcing the stronger relationship. This observation matches the regression results ($b = 0.296$, $p < 0.001$, $R^2 = 0.114$), which showed that Discomfort explains a significant portion of the variance in Budgeting Behaviour. This suggests that financial anxiety acts as a motivator, pushing individuals to engage more actively in budgeting to manage their uncertainties.

3. Effect of Education on Budgeting Behaviour

To study the effect of one independent variable (agency) on dependent variable (budgeting behaviour), regression analysis is used.

The hypothesis tests whether Education significantly influences Budgeting Behaviour. The dependent variable Budgeting Behavior (BB) was regressed on the predicting variable Education (EDUCATION) to test H1. Education did not significantly predict Budgeting Behaviour, $F(1, 242) = 0.373$, $p = 0.542$, indicating that Education does not play a significant role in shaping Budgeting Behavior. The beta coefficient for Education was negative ($b = -0.044$), but it was not statistically significant ($p = 0.542$). The model explains only 0.2% of the variance in Budgeting Behaviour ($R^2 = 0.002$), suggesting that Education has a very minimal effect on Budgeting Behaviour. The table below summarizes the findings:

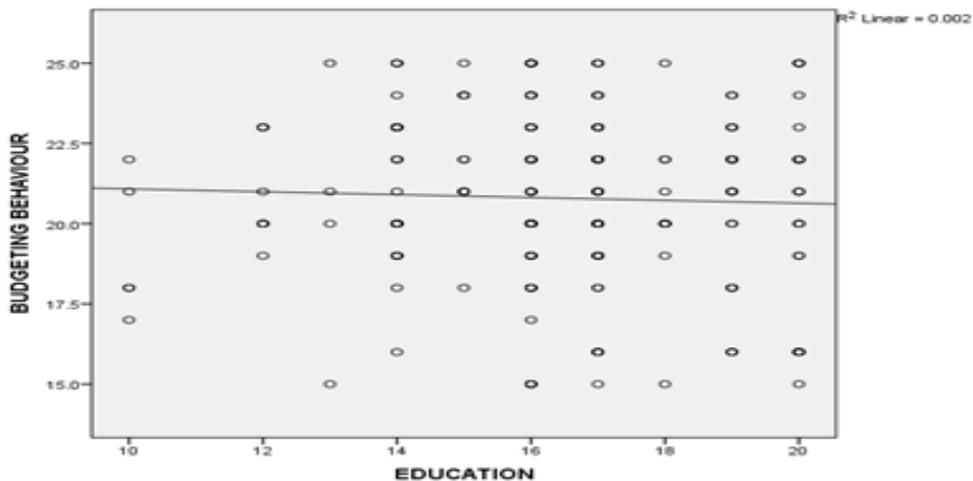
Table 5: Regression Analysis for the Impact of Education on Budgeting Behaviour

Hypothesis	Regression Weights	Beta Coefficient	R ²	F	p-value
H1	E → BB	-0.044	0.002	0.373	0.542

Source: Primary Data

Education does not have a statistically significant effect on Budgeting Behaviour. The results suggest that factors other than Education may have a stronger influence on budgeting behaviour.

Figure 3: Scatter Plot of Education vs. Budgeting Behaviour



Source: Primary Data

In contrast, the scatter plot for Education and Budgeting Behaviour does not exhibit a clear trend, implying that education level does not significantly influence budgeting habits. The points are widely scattered, confirming a weak relationship. This corresponds with the regression findings ($b = -0.044$, $p = 0.542$, $R^2 = 0.002$), where Education had no statistically significant effect. This suggests that formal education alone does not necessarily lead to better budgeting behavior, highlighting the need to explore other aspects of financial literacy

4. Effect of purpose on Budgeting Behaviour

To study the effect of one independent variable (purpose) on dependent variable (budgeting behaviour), regression analysis is used.

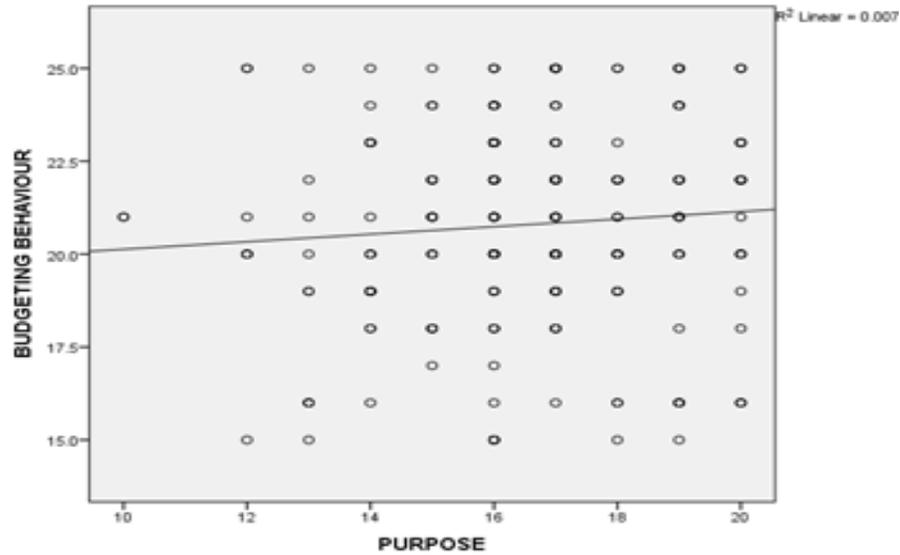
The hypothesis tests whether Purpose significantly influences Budgeting Behaviour. The dependent variable Budgeting Behaviour (BB) was regressed on the predicting variable Purpose (PURPOSE) to test H1. Purpose did not significantly predict Budgeting Behaviour, $F(1, 242) = 1.656$, $p = 0.199$, indicating that Purpose does not have a statistically significant impact on Budgeting Behaviour. The beta coefficient for Purpose was positive ($b = 0.102$), but it was not statistically significant ($p = 0.199$). The model explains only 0.7% of the variance in Budgeting Behaviour ($R^2 = 0.007$), indicating that Purpose has a very small and likely negligible effect on Budgeting Behaviour. The table below summarizes the findings:

Table 6: Regression Analysis for the Impact of Purpose on Budgeting Behaviour

Hypothesis	Regression Weights	Beta Coefficient	R ²	F	p-value
H1	PURPOSE → BB	0.102	0.007	1.656	0.199

Source: Primary Data

Purpose does not have a statistically significant effect on Budgeting Behaviour. The results suggest that Purpose may not be a major factor influencing budgeting behaviour, and other variables should be explored for a more comprehensive understanding.

Figure 4: Scatter Plot of Purpose vs. Budgeting Behaviour

Source: Primary Data

The scatter plot for Purpose and Budgeting Behaviour shows no clear pattern, with data points widely dispersed. This suggests that having a strong sense of purpose does not necessarily translate into better budgeting practices. This observation aligns with the regression analysis ($b = 0.102$, $p = 0.199$, $R^2 = 0.007$), where Purpose did not have a statistically significant effect on Budgeting Behaviour.

5. Effect of Agency on Budgeting Behaviour

To study the effect of one independent variable (thinking long term) on dependent variable (budgeting behaviour), regression analysis is used.

The hypothesis tests whether thinking Long-Term significantly influences Budgeting Behaviour. The dependent variable Budgeting Behaviour (BB) was regressed on the predicting variable Thinking Long-Term (THINKING LONGTERM) to test H1. Thinking Long-Term significantly predicted Budgeting Behaviour, $F(1, 242) = 4.882$, $p = 0.028$, indicating that Thinking Long-Term plays a statistically significant role in shaping Budgeting Behaviour ($b = 0.154$, $p = 0.028$). This suggests a positive relationship between Thinking Long-Term and Budgeting Behaviour. The model explains 2.0% of the variance in Budgeting Behaviour ($R^2 = 0.020$), which is a small but notable influence of Thinking Long-Term on Budgeting Behaviour. The table below summarizes the findings:

Table 7: Regression Analysis for the Impact of Thinking Long-Term on Budgeting Behaviour

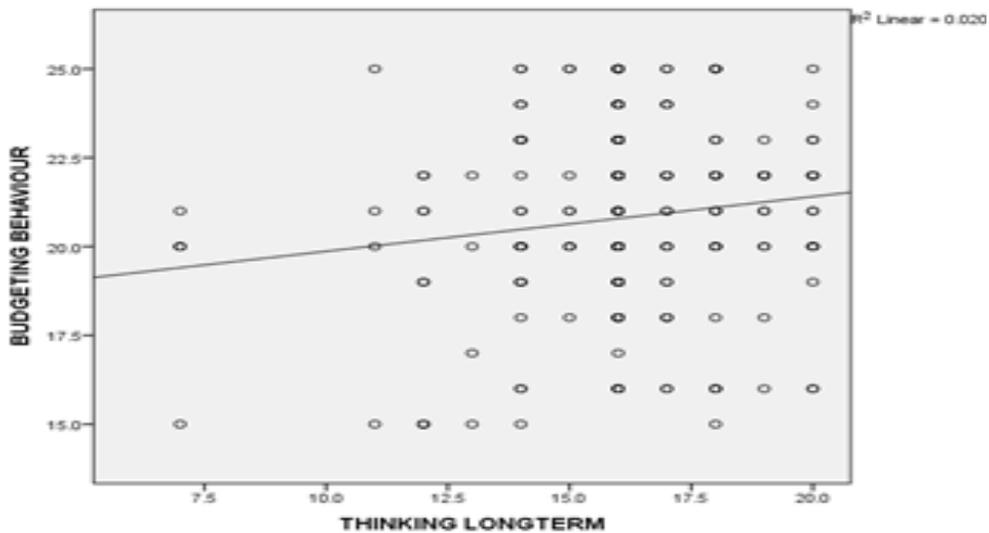
Hypothesis	Regression Weights	Beta Coefficient	R ²	F	p-value
H1	TL → BB	0.154	0.020	4.882	0.028

Source: Primary Data

Thinking Long-Term has a statistically significant positive effect on Budgeting Behaviour. While the effect size is small, it suggests that individuals who think more about long-term outcomes tend to engage in more consistent budgeting behaviour.

For Thinking Long-Term and Budgeting Behaviour, the scatter plot displays a slight positive trend, indicating that individuals who prioritize long-term financial goals are somewhat more likely to engage in budgeting. However, the data points remain somewhat scattered, suggesting a weak but present relationship. This is consistent with the regression results ($b = 0.154$, $p = 0.028$, $R^2 = 0.020$), where Thinking Long-Term had a small but significant effect. This implies that while focusing on long-term financial stability does contribute to better budgeting behavior, other factors such as financial stress and a sense of control have a stronger influence.

Figure 5: Scatter Plot of Thinking Long-Term vs. Budgeting Behaviour



Source: Primary Data

Based on the analysis of the ADEPT framework (Agency, Discomfort, Education, Purpose, Thinking Long-Term) and its impact on self-employed individuals' Budgeting Behaviour, the results indicate:

6. Effect of Agency on Budgeting Behaviour

To study the effect of The ADEPT framework (Agency, Discomfort, Education, Purpose, Thinking Long Term) dependent variable, multiple regression analysis is used.

Multiple Regression Analysis was performed with all five variables (Agency, Discomfort, Education, Purpose, Thinking Long-Term) as predictors of Budgeting Behaviour (BB). The R^2 value of 0.163 indicates that the model explains 16.3% of the variance in Budgeting Behaviour, suggesting a moderate relationship between the predictors and the dependent variable. The ANOVA result shows a significant overall model ($F(5, 238) = 9.277, p < 0.001$), indicating that the ADEPT framework as a whole significantly influences Budgeting Behaviour.

Specific Results for Each Predictor:

- Agency: $b = 0.257, p = 0.003$. Agency significantly predicts Budgeting Behavior, with a positive effect. Individuals who feel more in control of their budgeting process tend to engage in more effective budgeting practices.
- Discomfort: $b = 0.256, p < 0.001$. Discomfort also significantly predicts Budgeting Behavior, showing a positive relationship. Those who experience more discomfort related to budgeting are likely to develop more structured budgeting strategies.
- Education: $b = -0.050, p = 0.521$. Education does not significantly predict Budgeting Behavior. Its effect is minimal and statistically non-significant in this model.
- Purpose: $b = -0.110, p = 0.286$. Purpose does not significantly predict Budgeting Behavior either. The negative effect suggests a small, insignificant influence.
- Thinking Long-Term: $b = 0.142, p = 0.088$. Thinking Long-Term approaches budgeting in a positive direction, but it is not statistically significant at the conventional level ($p = 0.088$). It does show a trend towards a positive effect.

Table 8: ADEPT Framework Regression Results on Budgeting Behaviour

Hypothesis	Regression Weights	Beta Coefficient	<i>p-value</i>	Conclusion
ADEPT → BB	-	-	0.000	Supported (overall model is significant)
A → BB	0.257	0.211	0.003	Significant positive effect
D → BB	0.256	0.293	<0.001	Significant positive effect
E → BB	-0.050	-0.044	0.521	Non-significant effect
P → BB	-0.110	-0.090	0.286	Non-significant effect
TL → BB	0.142	0.129	0.088	Marginal positive effect

Source: Primary Data

The results indicate that the ADEPT framework (Agency, Discomfort, Education, Purpose, and Thinking Long-Term) collectively influences Budgeting Behaviour. Specifically, Agency and Discomfort are significant predictors of budgeting strategies and financial decision-making in self-employed individuals, showing positive relationships. Education and Purpose do not significantly affect budgeting behaviour in this context. Thinking Long-Term shows a trend toward a positive influence, though not statistically significant.

Therefore, Agency and Discomfort are the key drivers of effective budgeting behaviour among self-employed individuals, while other factors like Education and Purpose appear less impactful in the context of budgeting strategies and financial decision-making.

7. Effect of Demographic factors (such as age, gender, income level, educational level, and years of experience) on Budgeting Behaviour among self-employed individuals

An ANOVA was conducted to explore the impact of demographic factors (age group, gender, income level, educational level, and years of experience) on budgeting behaviour among self-employed individuals. The results indicated that none of the demographic factors significantly influenced budgeting behaviour. Specifically, for age group, the *p-value* was 0.195, which is greater than the 0.05 significance level, suggesting no significant differences in budgeting behaviour across different age groups. Similarly, gender had no significant effect, as evidenced by a *p-value* of 0.636, well above the 0.05 threshold. The income level also showed no significant influence on budgeting behaviour, with a *p-value* of 0.330, further

indicating that variations in income did not contribute to differences in budgeting practices. The educational level was not found to significantly affect budgeting behaviour, with a p-value of 0.142. Finally, the years of experience had a non-significant effect, with a p-value of 0.568.

Table 9 : ANOVA Results for Budgeting Behaviour

Demographic Factor	Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	<i>Sig.</i>
Age Group	39.124	4	9.781	1.527	0.195
Gender	1.453	1	1.453	0.224	0.636
Income Level	6.164	1	6.164	0.954	0.330
Educational Level	44.375	4	11.094	1.738	0.142
Years of Experience	13.131	3	4.377	0.675	0.568

Source: Primary Data

In summary, the findings suggest that demographic factors such as age, gender, income level, educational level, and years of experience do not have a statistically significant influence on budgeting behaviour among self-employed individuals. Therefore, the hypothesis that these demographic factors would significantly influence budgeting behaviour was not supported by the data.

Findings

- The sample predominantly comprises younger individuals, with 67.6% falling in the 22-30 age group. There is a noticeable skew towards females (67.6% of respondents), with a near even split between married and unmarried individuals.
- Educationally, the majority of respondents hold a Bachelor's Degree (51.2%), followed by a significant portion holding a Master's Degree (17.6%). Interestingly, income levels are skewed towards the lower end, with 56.1% earning less than 100,000.
- The majority of respondents feel confident in their ability to control financial decisions (58.6% strongly agree). They also prioritize their spending in line with financial goals (49.6% strongly agree), and most aim to set and work towards financial goals (41.4% strongly agree).
- Despite this confidence, financial stress remains prevalent, with a significant portion feeling anxious about debt and their future financial stability.

- In terms of budgeting behaviours, most respondents report actively engaging in regular financial tracking and saving, although financial uncertainty, particularly with irregular income, persists for some.
- Agency was found to significantly influence Budgeting Behaviour, with a positive but weak effect ($R^2 = 0.061$).
- Discomfort, or financial stress, exhibited a stronger positive influence on Budgeting Behaviour ($R^2 = 0.114$), suggesting that individuals experiencing more discomfort tend to engage more in budgeting practices.
- Education and Purpose did not have a significant impact on Budgeting Behaviour, with p-values far exceeding the 0.05 threshold.
- Thinking Long-Term showed a small but statistically significant positive effect on Budgeting Behaviour ($R^2 = 0.020$).
- The ADEPT framework (Agency, Discomfort, Education, Purpose, and Thinking Long-Term) collectively accounted for 16.3% of the variance in Budgeting Behaviour, highlighting the significant roles played by Agency and Discomfort.
- Age, Gender, Income Level, Educational Level, and Years of Experience did not significantly affect Budgeting Behaviour. This indicates that budgeting behaviours are more influenced by psychological and behavioural factors like Agency and Discomfort, rather than demographic variables.

Suggestions

- Given that Discomfort (financial stress) plays a significant role in encouraging budgeting behaviour, it may be beneficial for financial education programs to focus on stress management techniques alongside budgeting strategies. This could help individuals feel more in control of their finances and reduce anxiety-driven behaviour.
- While Education had minimal impact in this study, it's still crucial to continue promoting financial literacy. A better understanding of budgeting and financial management might lead to more informed decision-making and better financial outcomes. Financial education initiatives could integrate practical tools that help individuals manage stress, particularly in unpredictable financial situations.
- Increasing individuals' sense of Agency could help improve budgeting behaviour. Empowerment programs that encourage self-control and decision-making might lead to more effective financial management. Financial

independence training, especially for self-employed individuals, could be a key area of focus.

- Although Thinking Long-Term had a small but statistically significant impact, this suggests that there's room for improvement in long-term financial planning. Encouraging individuals to think beyond immediate needs could lead to more consistent and sustainable budgeting practices.
- The findings suggest that demographic factors (age, gender, income, etc.) have little impact on budgeting behaviour, meaning that a one-size-fits-all approach may not be as effective. Tailoring financial strategies to the unique psychological needs and situations of individuals, such as those with irregular income, may be a more effective way forward.

Conclusion

This study aimed to explore the factors influencing budgeting behaviour among self-employed individuals, focusing on the ADEPT framework (Agency, Discomfort, Education, Purpose, and Thinking Long-Term). The results indicated that Agency and Discomfort significantly influence Budgeting Behaviour, with Discomfort showing a stronger effect. Education and Purpose did not have a significant impact on budgeting practices, suggesting that other factors such as psychological stress and a sense of financial control are more influential. Furthermore, demographic factors such as age, gender, and income were found to have no significant impact on Budgeting Behaviour, emphasizing the psychological and behavioural aspects as more important in determining financial management practices. The ADEPT framework collectively accounted for a moderate portion of the variance in budgeting behaviour, with Agency and Discomfort emerging as the primary drivers. Based on these findings, future efforts should focus on addressing financial stress, enhancing financial empowerment, and promoting long-term financial thinking. Tailored financial education programs that acknowledge these behavioural factors may be key in improving budgeting behaviours among self-employed individuals.



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GST Updates

Vidya V Devan

Quarter of Transformation: Key GST Reforms and Policy Updates - July to September 2025

The months of July, August, and September 2025 witnessed a series of far-reaching reforms aimed at simplification, inclusivity, and economic revitalisation. Building upon the Government's vision of a "Simple Tax, Simple System", these updates reflected a decisive shift toward making GST more citizen-centric and business-friendly, while ensuring fiscal stability and cooperative federalism.

During this period, significant policy measures were rolled out, beginning with rate rationalisation discussions in July, followed by the Prime Minister's announcement of next-generation GST reforms in August 2025 from the Red Fort, and culminating in the 56th GST Council Meeting in September 2025, which finalised the structural and rate-related changes. The reforms introduced new two-tier rate slabs, broad-based exemptions for essential goods and services, and corrections in inverted duty structures, alongside the operationalisation of the Goods and Services Tax Appellate Tribunal (GSTAT).

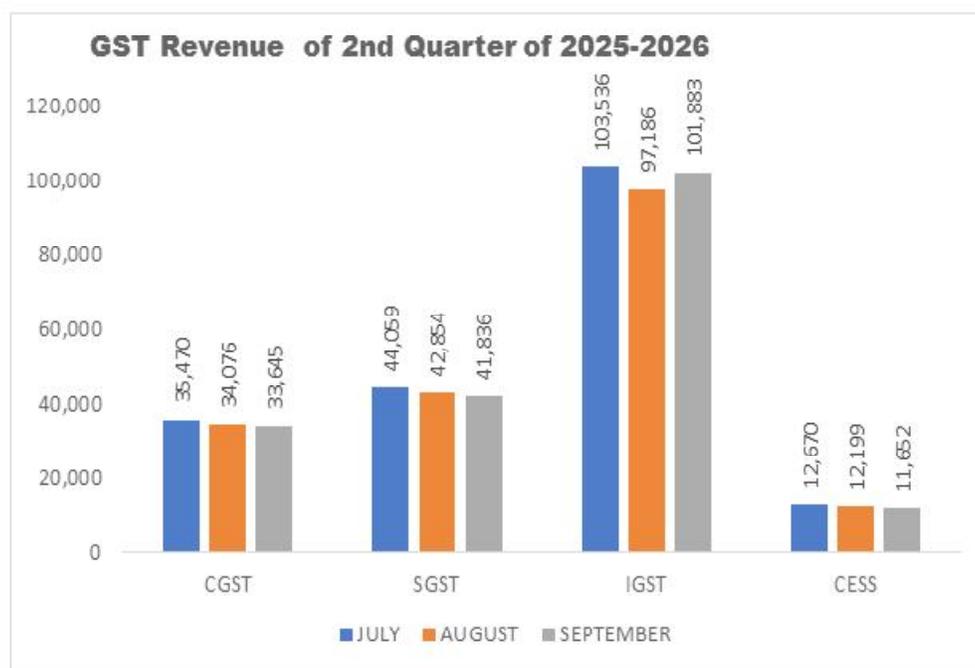
I. GST collections during July, August, and September 2025

The monthly Goods and Services Tax (GST) revenue collections for July, August, and September, categorised under CGST, SGST, IGST, and Cess, are, in July, the gross collections amounted to Rs. 35,470 crore as CGST, Rs.44,059 crore as SGST, Rs.1,03,536 crore as IGST, and Rs.12,670 crore as Cess. During August, the figures slightly declined to `Rs.34,076 crore for CGST, Rs.42,854 crore for SGST, Rs.97,186 crore for IGST, and Rs.12,199 crore for Cess. In September, the collections were Rs.33,645 crore under CGST, Rs.41,836 crore under SGST, Rs.1,01,883 crore under IGST, and Rs.11,652 crore under Cess. Overall, the data indicates a marginal variation across the three months, with IGST consistently accounting for the highest share of total GST revenue. Table - 1 presented the GST data of India for the second quarter of 2025. Chart -1 gives the comparative picture of GST revenue in second quarter of 2025 over the same quarter of 2024.

Table 1: GST collection of India from July 2025- September 2025 (RS in crores)

Months	CGST	SGST	IGST	CESS
JULY	35,470	44,059	1,03,536	12,670
AUGUST	34,076	42,854	97,186	12,199
SEPTEMBER	33,645	41,836	1,01,883	11,652

Source: <https://www.gst.gov.in/>

Chart 1: Comparison of GST Revenue of July- September 2025 over July- September 2024

II. GST Revenue in Kerala

Kerala's Goods and Services Tax (GST) revenue showed a positive growth trajectory during the period from July to September 2025 compared to the same months in 2024. In July 2025, the State recorded a collection of Rs.2,721 crore, reflecting a 9% growth over Rs.2,493 crore in July 2024. The upward trend continued in August 2025, with collections rising to Rs.2,723 crore from Rs.2,511 crore in the previous year,

marking an 8% increase. The most notable improvement was observed in September 2025, when revenue surged by 13%, from Rs.2,675 crore in 2024 to Rs.3,013 crore in 2025. The consistent increase across these three months indicates a steady expansion in Kerala's GST base, reflecting improved compliance and effective tax administration efforts in the State.

Table 2 : GST Revenue of Kerala from July to September of 2024 and 2025, and the growth rate

Months	2024	2025	Growth Rate
JULY	2,493	2721	9%
AUGUST	2,511	2723	8%
SEPTEMBER	2,675	3,013	13%

Chart 2: GST Revenue of Kerala from July to September 2025 in comparison with the same period in the previous year.



III. Recommendations of the 56th Meeting of the GST Council held at New Delhi, on 03 SEP 2025

The next-generation GST reforms, announced by Prime Minister Shri Narendra Modi from the Red Fort on August 15, 2025, mark a significant, citizen-centric transformation of India's landmark tax framework. These reforms aim to improve the quality of life for every citizen and strengthen the ease of doing business, especially for small traders and entrepreneurs. The GST Council, chaired by the Union Finance and Corporate Affairs Minister Smt. Nirmala Sitharaman, at its 56th meeting in New Delhi, approved a comprehensive set of multi-sectoral and multi-thematic reforms designed to benefit all sections of society. Key highlights include rate rationalisation, tax relief for essential sectors, and simplification of the rate structure.

Key Announcements :

1. **Simplified Rate Structure:** The existing four-tier GST rate system will be streamlined into a two-rate "Simple Tax" structure a standard rate of 18%, a merit rate of 5%, and a special demerit rate of 40% for select items.
2. **Insurance Relief:** All individual life and health insurance policies (including term life, ULIPs, endowment, and family floater policies) along with their reinsurance will now be exempt from GST, making insurance more affordable and increasing coverage.
3. **Common Man Items:** GST rates on everyday essentials like toothpaste, soaps, shampoos, bicycles, and kitchenware reduced to 5%.
4. **Food Products:** Major reductions include:

Nil GST on UHT milk (Ultra-High Temperature milk), prepackaged paneer/chena, and all Indian breads (roti, paratha, parotta, etc.).

5% GST on packaged food items such as namkeens, noodles, sauces, chocolates, pasta, coffee, butter, ghee, and more.

5. **Healthcare Sector:**

Nil GST on 33 lifesaving drugs, and from 5% to Nil on three critical drugs used in cancer and rare disease treatment.

GST on all other medicines reduced to 5%.

5% GST on medical devices, diagnostic kits, and hospital supplies.

Agriculture and Labour-Intensive Sectors: GST on tractors, agricultural machinery, handicrafts, leather goods, marble, and granite blocks reduced to 5%.

6. **Industrial and Infrastructure Goods:**

Cement now taxed at 18% (down from 28%).

Fertilizer inputs such as sulphuric acid, nitric acid, and ammonia reduced from 18% to 5%.

Renewable energy devices and hotel accommodation (\geq Rs.7,500/day) also taxed at 5%.

7. Automobile Sector:

GST on small cars, motorcycles (\leq 350cc), buses, trucks, and ambulances reduced to 18%.

Uniform 18% rate for all auto parts, resolving classification disputes.

8. Textile Sector: Correction of inverted duty structure manmade fibre and yarn now uniformly taxed at 5%.

9. Services:

Beauty, salon, gym, yoga, and wellness services to attract a reduced 5% GST.

10. Institutional Reforms:

The Goods and Services Tax Appellate Tribunal (GSTAT) will begin accepting appeals by September 2025 and start hearings by December 2025.

New service tax rates will take effect from September 22, 2025.

Overall, these reforms reflect a strategic, inclusive, and growth-oriented evolution of the GST system designed to empower citizens, promote industrial competitiveness, and strengthen India's economy through simplicity, fairness, and transparency.

On 17 September 2025, the Government of India issued a comprehensive series of GST rate revision notifications to implement the next-generation GST reforms approved by the 56th GST Council Meeting. The key among them was Notification No. 09/2025 Central Tax (Rate), which introduced a new HSN-wise GST rate schedule for goods, superseding the earlier 2017 framework, while Notification No. 10/2025 Central Tax (Rate) specified the revised exemptions on goods, and Notification No. 15/2025 Central Tax (Rate) detailed the changes in the service tax rate structure. Complementary notifications such as Nos. 13/2025 and 14/2025 Central Tax (Rate) dealt with sector-specific revisions relating to used motor vehicles, handicrafts, bricks, and tiles.

In parallel, a corresponding set of Integrated Tax (Rate) notifications namely Notification Nos. 09/2025, 10/2025, 13/2025, 14/2025, and 15/2025-Integrated Tax (Rate) were also issued on the same date to ensure alignment of IGST rates and exemptions with the revised GST framework.

IV. Other Important updates in GST

Launch of Goods and Services Tax Appellate Tribunal (GSTAT)

On September 24, 2025, the Union Minister for Finance and Corporate Affairs, Smt. Nirmala Sitharaman, officially inaugurated the Goods and Services Tax Appellate

Tribunal (GSTAT) in New Delhi. The Tribunal has been constituted as a statutory appellate body under the GST framework to offer taxpayers an independent platform to challenge the decisions of the GST Appellate Authorities.

The Goods and Services Tax Appellate Tribunal (GSTAT) is a statutory appellate authority set up under the GST framework to hear appeals against the decisions of GST Appellate Authorities. It serves as an independent forum to ensure fair adjudication and justice for taxpayers. The Tribunal will operate through a Principal Bench in New Delhi and 31 State Benches spread across 45 locations, ensuring broad accessibility across the country. Each Bench will consist of two Judicial Members, one Technical Member representing the Centre, and one Technical Member representing the State, thereby combining judicial expertise with technical knowledge from both levels of administration. This well-balanced structure upholds the principle of cooperative federalism and aims to deliver uniform, fair, and transparent decisions.

GST Portal Update - Filing Appeal Against Waiver Rejection Order (SPL-07)

(Dated: July 16, 2025)

The GST Portal has introduced a new feature enabling taxpayers to file appeal applications (Form APL-01) against Waiver Application Rejection Orders issued in Form SPL-07. Taxpayers who earlier submitted waiver applications in Forms SPL-01 or SPL-02 are now receiving orders either in SPL-05 (Acceptance) or SPL-07 (Rejection). Those receiving SPL-07 can now appeal online through:

Services → User Services → My Application → Appeal to Appellate Authority → New Application, selecting "Waiver Application Rejection Order" as the Order Type.

It is important to note that once an appeal is filed, it cannot be withdrawn on the portal. Taxpayers should therefore proceed carefully. If a taxpayer chooses not to appeal but wishes to restore a previously withdrawn appeal (against the original demand order), this can be done by filing an undertaking under the "Orders" section of the "Waiver Application" case folder. For any technical difficulties, taxpayers may contact the GST Helpdesk at <https://selfservice.gstsystem.in>

New Changes in Invoice Management System (IMS) dated Sep 23rd, 2025

Several new changes have been introduced in the Invoice Management System (IMS) to simplify the taxation system and reduce the compliance burden on the taxpayers. The following are the key updates

Pending action for specified records: Taxpayers can keep specified records pending for a limited time period. For monthly taxpayers, this period is one tax period (months), for quarterly taxpayers also it is one tax period (quarter) only. The specified records which can be kept pending in the system are mentioned below

- a. Credit notes, or upward amendment of Credit note
- b. Downward amendment of CN where original CN rejected
- c. Downward amendment of Invoice / DN only where original Invoice already accepted and 3B has been filed
- d. ECO-Document downward amendment only where original accepted, and 3B has been filed

Declaring ITC reduction amount:

It is clarified that, in cases where the recipient has not availed Input Tax Credit (ITC) in respect of the relevant invoice or document, no reversal of ITC shall be warranted. Further, in cases where ITC has been availed only partially, the obligation to reverse ITC shall be limited to the extent of such availment.

Therefore, In IMS a facility has been made available to taxpayers to declare the amount of ITC actually availed and, to the extent applicable, required to be reversed in respect of the selected record. The said facility permits reversal of ITC, either in full or in part, by entering the amount availed to be reversed. This facility may also be utilized in cases where the taxpayer has already effected such reversal, either wholly or partially, at an earlier point of time, or where the ITC pertaining to the relevant invoice or document was never availed. Such facility is provided for the afore-mentioned specified records.

Option to save remarks: Taxpayers can now save remarks while taking reject or pending action on records. This optional facility allows taxpayers to add remarks (will be rolled out shortly). Such remarks will be visible in GSTR-2B for future reference and to suppliers in the Outward Supplies view dashboard, to take corrective measures.

Important Dates:

The changes of keeping credit notes pending and declaring the ITC amount, as mentioned above shall be made effective on the portal from October tax period.

Due date for keeping records pending: The due date for keeping records pending is calculated based on the date/ tax period in which such documents has been communicated by the supplier.

Invoice-wise Reporting Functionality in Form GSTR-7 on portal-reg dated Sep 26th, 2025

Vide Notification No. 09/2025 - Central Tax dated 11.02.2025, Form GSTR-7 was amended to enable capture of invoice-wise reporting of tax deducted at source (TDS). In this regard, it is informed that the functionality for invoice-wise reporting in GSTR-7 has now been made operational on the GSTN portal. Hence from September 2025 tax period in Form GSTR-7 invoice level reporting is required. Accordingly, all

TDS Deductors are requested to prepare the data accordingly so that they could furnish invoice-level details on which TDS has been deducted while filing FORM GSTR-7 for the September return period onwards. Due date for September tax period return filing is 10th October 2025.

Enhanced Data Security and Transparency for Taxpayers: New GST Portal Controls and Alerts for ASP/GSP Access

The GST System is introducing new security measures to enhance data protection and transparency for taxpayers using Application Suvidha Providers (ASPs) and GST Suvidha Providers (GSPs). Two major features are being rolled out:

First, taxpayers will receive email and SMS alerts whenever an ASP obtains OTP-based consent to access their data via APIs. These alerts will include details such as the ASP/GSP name, the date and time of consent, and its validity period.

Second, the GST Common Portal will be upgraded to enable taxpayers to monitor both current and past data access granted to ASPs/GSPs and to revoke any active consents directly from their dashboard. These initiatives are designed to give taxpayers improved control and visibility over third-party access to their GST data. The specific implementation schedule will be communicated through separate official advisories.

Kerala GST dept raids jewellery shops, unearth Rs 100 cr sales suppression

In a major enforcement drive codenamed "Arkenstone," the State GST Department carried out simultaneous raids at 42 jewellery establishments, uncovering alleged sales suppression exceeding Rs.100 crore. Around 200 officers participated in the operation, targeting business premises and residences linked to 16 traders. The raids resulted in the seizure of 36 kg of unaccounted gold and the recovery of over Rs. 2 crore in tax and penalties so far. Authorities stated that investigations are still underway and assured that strict measures against suspected tax evasion will continue. This operation follows an earlier enforcement action in the same district, which had also led to the discovery of substantial quantities of unaccounted gold from several firms.

The Cabinet has approved a bill aimed at regulating online gaming platforms, which could potentially prohibit real-money gaming activities.

The Cabinet has approved a bill to regulate online gaming platforms, expected to include a ban on real-money gaming due to concerns over mental health, money laundering, fraud, and cybercrime. The bill will be introduced in Parliament soon. While states and Union Territories currently hold the primary authority to curb and prosecute illegal betting and gambling, a recent High Court ruling reaffirmed their power to prohibit real-money games and dismissed claims by gaming companies that such activities qualify as "games of skill." The Central Government has also issued multiple blocking orders and, under the IT and IGST laws, authorizes

tax and cyber agencies to regulate and restrict access to unregistered or offshore gaming operators.

GST Day 2025: Marking Eight Years of "One Nation, One Tax"

On the occasion of GST Day 2025, commemorating eight years since the implementation of one of independent India's most transformative tax reforms, the Central Board of Indirect Taxes and Customs (CBIC) reaffirmed its commitment to fostering meaningful engagement with stakeholders, enhancing taxpayer services, and promoting awareness within the GST ecosystem. The theme for this year's celebration, "GST - Simplifying Taxes: Empowering Citizens," emphasizes the government's focus on ease of compliance and citizen empowerment through simplification and transparency.

Adding a significant achievement to its record, the Thiruvananthapuram CGST and Central Excise Zone was honoured with a Commendation Certificate from CBIC for exemplary performance in two critical areas of GST administration. The Zone processed 55% of GST registrations within seven days, far exceeding the national average of 17%, and successfully disposed of 83% of appeals filed during the year. This national recognition reflects the dedication and efficiency of officers and staff in the Thiruvananthapuram Zone in delivering taxpayer-centric services, strengthening dispute resolution, and contributing to the overall ease of doing business.

As part of the fortnight-long 'GST Pakhwada 2025' held from 16th June to 1st July 2025, the Thiruvananthapuram Zone, covering the Commissionerates of Kozhikode, Cochin, and Thiruvananthapuram, organized a variety of programmes to engage stakeholders and celebrate the evolution of GST. The GST Conclave 2025, held at Taj Vivanta, Kochi, served as the flagship event. The conclave was graced by Shri R. Venkataramani, Hon'ble Attorney General of India, as Chief Guest, and Shri Rajendra Kumar P., Chairman, Indirect Taxes Committee, ICAI, as Guest of Honour. A keynote session by Shri Shailendra Kumar, CEO & Founder Editor, TIOL, on "GST - Simplifying Taxes: Empowering Citizens" added depth to the discussions. Attended by over 200 stakeholders from various sectors, the event received wide appreciation and media coverage.

During the Pakhwada, the Chief Commissioner actively interacted with major taxpayers as part of the "Meet the Trade" initiative, visiting BPCL and Cochin Shipyard to understand industry issues and strengthen trust between taxpayers and the administration. The Chief Commissioner also inaugurated a National Conference on GST organized by ICAI in Kochi and delivered a technical session on "Dispute Resolution Mechanism in GST with Focus on Reducing Tax Disputes."

Several initiatives were undertaken across the Zone to promote awareness and community engagement. GST Helpdesks were established in all Commissionerates

to address taxpayer queries, with Thiruvananthapuram officers successfully resolving 27 grievances during the period. As part of the 'Fit India' campaign, Cycle Marathons were organized across Thiruvananthapuram, Cochin, and Kozhikode, flagged off by Olympians and senior officers, promoting health and camaraderie among participants.

The Zone also prioritized student and youth engagement, organizing competitions such as quizzes, essay writing, poster design, and extempore speaking across 20 schools, involving over 500 students. Creative contests like painting, slogan writing, and poetry recitation helped promote GST awareness in an engaging and accessible manner. In addition, street plays (Nukkad Nataks), art exhibitions, and departmental competitions were held to foster both public and officer-level understanding of GST.

The GST Day 2025 celebrations was inaugurated on 1st July 2025 in Thiruvananthapuram by Shri K. N. Balagopal, Hon'ble Minister for Finance, Government of Kerala, who graced the occasion as Chief Guest, and Shri Mohanlal, renowned cine actor, attended as Guest of Honour. Commendation Certificates was presented to officers and staff for their exemplary service in GST administration, while trade and industry representatives was also felicitated for their proactive role in supporting GST objectives.

GoM Discusses Measures to Curb ITC Fraud

A panel of state finance ministers, chaired by Goa Chief Minister Pramod Sawant, met in New Delhi to deliberate on strategies to combat large-scale Input Tax Credit (ITC) fraud under the Goods and Services Tax (GST) regime, estimated at ₹2 lakh crore. The Group of Ministers (GoM) on GST Revenue Analysis also reviewed sector-specific tax evasion, pre- and post-GST revenue trends, and measures to enhance e-invoicing and IT systems for better traceability. The meeting emphasized closer coordination between central and state tax administrations and the integration of anti-evasion and compliance tools. During 2024-25 alone, GST authorities detected 25,009 fake firms involved in passing fraudulent ITC worth ₹61,545 crore. Over the last two years (2023-25), a total of 42,140 fake firms were unearthed, linked to ₹1.01 lakh crore in fraudulent ITC, with ₹3,107 crore recovered and 316 arrests made.

Clarification on various doubts related to treatment of secondary or post-sale discounts under GST - reg. Circular No. 251/08/2025-GST dated 12th September, 2025.

In exercise of its powers conferred under sub-section (1) of section 168 of the Central Goods and Services Tax Act, 2017 (hereinafter referred to as "the CGST Act") clarifies the issues as under.

S. No.	Issue	Clarification
1	Whether the full input tax credit is available to the recipient of supply when the recipients make discounted payments to the supplier of goods on account of financial/ commercial credit notes issued by the said supplier?	<p>1. Section 16 (1) of the CGST Act, 2017 provides that every registered person shall be entitled to take credit of input tax charged on any supply of goods or services or both, which are used or intended to be used in the course or furtherance of his business.</p> <p>2. It has been clarified vide circular No. 92/11/2019-GST dated 7th March 2019 that the supplier of goods can issue financial/ commercial credit notes and in such cases, he will not be eligible to reduce his original tax liability. As the transaction value is not allowed to be reduced on account of issuance of financial/ commercial credit note, accordingly the tax charged from the recipient would also not get reduced.</p> <p>3. Thus, it is clarified that the recipient will not be required to reverse the Input Tax Credit attributed to the discount provided on the basis of financial/ commercial Credit notes issued by the supplier, as there is no reduction in the original transaction value of the supply and accordingly the corresponding tax liability would also not get reduced.</p>
2.	Whether a post-sale discount offered by a manufacturer to its dealer/ distributor, would be treated as a consideration paid by the manufacturer for the dealer's supply of the same goods to the end customer as a monetary value of the	1. Section 2 (31) of the CGST Act, 2017 defines consideration as to include the monetary value of any act for the inducement of the supply of goods or services, whether by the recipient or by any other person.

S. No.	Issue	Clarification
	inducement to supply of goods manufactured by him to the end customer?	<p>2. In cases where there is no agreement between the manufacturer and the end customer, there are two independent sale transactions, one from the manufacturer to the dealer and the other from the dealer to the end customer. The essence of the matter is that in a contract of sale, the sale is completed on the transfer of title to the goods to the buyer. Once this happens, the buyer becomes the owner of the goods, and the seller has no vestige of the title or claims therein. The dealer takes ownership of the goods purchased from the manufacturer and subsequently sells them to the end customer and transaction between the manufacturers to dealer operates on a principal-to-principal basis. These discounts are simply given for competitive pricing to push sales and merely reduce the sale price of the goods and are not linked to any independent activity rendered to the manufacturer. Therefore, it is clarified that such a discount cannot be included in consideration as the monetary value of the inducement of further supply of these goods.</p> <p>3. However, in cases where the manufacturer has some agreement with an end customer to supply goods at a discounted price, the manufacturer may issue commercial or financial credit notes to the dealer, enabling such dealer to provide the</p>

S. No.	Issue	Clarification
		<p>goods at the agreed discounted rate to the end consumer. Therefore, it is clarified that such a post-sale discount, given by the manufacturer to the dealer for supplying goods to the end customer at a discounted rate, should be included in the overall consideration as it is an inducement towards the supply of goods by the dealer to the end customer.</p>
3	<p>Whether a post-sale discount extended by the manufacturer to the dealer can be treated as a consideration in lieu of the activities performed to promote the sale of the goods?</p>	<p>1. The matter has been examined. When dealers receive such post-sale discounts, they may engage in promotional activities to boost sales. However, these activities ultimately enhance the sale of goods that the dealers themselves own, thereby increasing their own revenue. In this context, the discount merely reduces the sale price of the goods and is not linked to any independent service rendered to the manufacturer. Therefore, it is clarified that post-sale discounts offered by manufacturers to dealers in such cases shall not be treated as consideration for a separate transaction of supply of services.</p> <p>2. However, GST would be leviable in cases where a dealer undertakes specific sales promotional activities, such as advertising campaigns, co-branding, customization services, special sales drives, exhibition arrangements, or customer support services, etc., only when such services are explicitly stated in the agreement with a clearly defined</p>

S. No.	Issue	Clarification
		consideration payable for such a supply. In such cases, the dealer provides a distinct service to the supplier, and accordingly, GST would be chargeable.

Sources

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(Dr. Vidya V Devan, Assistant professor, Gulati Institute of Finance and Taxation Thiruvananthapuram)

New Studies on Kerala

Young Scholars' Forum, GIFT
Led by Shahid P K and Sona Muraleedharan

Investment, Finance, and Financial Institutions

Scopus indexed

1. Muhammed Shamil, M. N., & Anil Kumar, K. (2025). *Financial anxiety and satisfaction among senior citizens in India's unorganised sector: An evidence from Kerala, India. South Asian Journal of Social Studies and Economics, 22(9), 321-329.*

The financial environment is becoming more complex and competitive in this present digital environment. The introduction of the contribution-based pension system lifted the role of the individual in determining his retirement opportunities. Appropriate financial planning, saving, investment and financial knowledge are essential to overcome financial anxiety and maintain financial harmony. Financial anxiety and stress hinder the ability to make adequate financial decisions. In this paper, the authors took a different approach by conducting an in-depth study of senior citizens in Kerala who worked in the unorganized sectors during their working ages and attempted to identify their financial anxiety and stress in old age, as well as their financial attitudes during their younger years. A judgmental sampling technique was adopted to select the most appropriate respondents. The study concludes by emphasizing on the importance of maintaining a customised approach to mitigate the negative effects of financial anxiety and dissatisfaction across generations.

Other Articles

1. Dr. Francis M C, Harikrishna S, Dr. Somasekharan T M, & Mariya M A. (2025). *Financial Literacy and Money Management of Lower Income Households: A Study in Ernakulam, Kerala. Journal of Scientific Research and Technology, 3(9), 119-126.*

Financial literacy is crucial for economic empowerment, particularly among lower-income households that face challenges in making informed financial decisions. This study examines the financial literacy and money management practices of households in Vaduthala ward, Ernakulam district, Kerala. Findings reveal cautious spending, with prioritization of essential goods, but limited awareness of formal financial services and investment options. Structural constraints such as irregular income, job insecurity, and restricted access to financial institutions impede long-term financial stability. Despite

these challenges, respondents expressed strong interest in financial literacy programs. The study underscores the need for targeted financial education, community-based savings initiatives, and accessible banking services to enhance decision-making, strengthen financial resilience, and promote sustainable economic well-being among low-income households.

Society and Culture

Scopus Indexed

1. Sunilraj, B., & Salman, A. (2025). *Regional dynamics and political praxis: A case study of the CPI (M) in Kerala*. *Asian Journal of Social Science*, 53(3), 1-8..

This article scrutinises the distinct political methods employed by the CPI(M) within the Malabar and Cochin-Travancore regions of Kerala, underlining the influence of regional dynamics in CPI(M)'s political praxis. Through a comprehensive comparative analysis, the research elucidates 2 principal findings: Firstly, the character of party-society affiliations exhibits considerable variation across the regions, incorporating both transactional (distributive) and nontransactional aspects that resist reductive vertical categorisation. Secondly, the CPI(M)'s political interaction with caste operates under fundamentally disparate logics within each region. In Cochin-Travancore, it is deemed an operational imperative, leading to negotiations with caste organisations, whereas the socio-political history of Malabar renders such negotiations superfluous.

2. Harikrishna, D. N. (2025). *Kerala: Cultural entrenchment of Hindutva*. *Forum for Development Studies*, 1-11.

The article examines how the Hindutva movement is expanding into Kerala, a region traditionally resistant to its influence. In the aftermath of the 2024 general elections-where the BJP's national performance fell short of expectations-the study argues that Kerala remains central to the movement's long-term political and cultural strategy. Rather than focusing solely on electoral gains, Hindutva seeks to build deeper socio-cultural influence through sustained civil-society engagement, religious outreach, and cultural interventions. The BJP's first-ever Lok Sabha seat victory and its rise to nearly 20% vote share in 2024 signal the growing effectiveness of these strategies. The article maps these entrenchment processes to show how Hindutva aims to reshape Kerala's socio-political landscape over the long run.

Agriculture and Rural Economy

Scopus Indexed

1. Chithra, G. (2025). *Evaluating rain-hose micro-irrigation for improving water use*

efficiency and profitability in paddy cultivation in a district in Kerala. Journal of Experimental Agriculture International, 47(9), 425-433.

Paddy cultivation in Kerala faces challenges from water scarcity, labour shortages, and declining profitability, particularly in upland areas where conventional flood irrigation is inefficient. This study evaluated the performance of rain-hose spray irrigation—a low-pressure perforated hose system—on water use efficiency (WUE), yield, and economic returns in upland paddy fields of Thiruvananthapuram district. Field demonstrations covering 3.5 ha across 28 farmers compared conventional flood irrigation with rain-hose irrigation. Irrigation was scheduled daily for 15-30 minutes according to crop growth stage, and total seasonal water use was carefully monitored. Yield, WUE, labour requirements, and economic indicators including benefit-cost ratio (BCR) were analyzed using independent t-tests. Results showed that rain-hose irrigation increased yield by 23.0% (39.06 q/ha vs. 30.06 q/ha under flood irrigation) and improved WUE from 0.43 to 0.87 q/ha-cm. Water consumption decreased by approximately 60%, and labour requirements fell by 83% per hectare. Economic analysis indicated a BCR of 1.61 under rain-hose irrigation compared to 1.04 under conventional irrigation. These results demonstrate that rain-hose spray irrigation is a cost-effective, labour-saving, and water-efficient alternative for smallholder paddy farmers. The findings align with prior studies in India and other South Asian contexts, highlighting rain-hose irrigation's potential to enhance climate resilience, resource use efficiency, and profitability in paddy cultivation.

2.Suresh, V., Sreejith, S. S., Vivek, S., & Bonin, S. (2025). Can farmers' producers organisations be a sustainable livelihood program for farmers' wellbeing in Kerala, India? Development in Practice, 1-15.

Academic literature highlights Farmer's Producers Organisations (FPOs) success case stories. However, there is not enough discussion on the strategies adopted by moderately functioning FPOs to survive the sustainability issues. There is a lack of investigation into the potential of collectives as a sustainable livelihood programme to achieve the expected goals. Additionally, the vulnerability context and the capabilities of FPOs have not been examined using the sustainable livelihood approach. Therefore, the researchers aim to evaluate the FPO as a livelihood programme using the Sustainable Livelihoods Framework (SLF). A qualitative case study was conducted among the farmers to understand their perceptions. Key findings provide a comprehensive understanding of the interplay of vulnerability context, the capability of FPOs, and existing transforming structures and processes in FPO that enable the farmers to achieve sustainable outcomes. The study's novelty and uniqueness reside in elucidating the contextual factors that influence the sustainability of FPOs and community-driven livelihood strategies adopted by farmers' groups to mitigate their sustainability issues. Moreover, these qualitative case study findings generated propositions about why FPOs face sustainability issues

and how they are surviving. FPO stakeholders can replicate these livelihood strategies in similar FPOs to achieve the expected outcomes of farmers' collectives.

3. R, A. K., & Nair, M. S. (2025). *Striving towards food sovereignty: The Kerala experience during the pandemic. Agroecology and Sustainable Food Systems*, 1-27.

This article examines how the COVID-19 pandemic exposed the fragility of global food systems and renewed attention to food sovereignty. In Kerala, long known for its interventionist development model, several state-led and community-driven initiatives—such as Subhiksha Keralam, Subhiksha Surakshitham, and Kudumbashree's cluster farming—significantly strengthened local food production during the crisis. Implemented through strong decentralized institutions and active civil society participation, these programs functioned as a social movement that challenged the limitations of the dominant food regime. Kerala's experience reveals a shift toward locally rooted, sustainable agriculture that enhances women's empowerment, restores community autonomy, and aligns with global food sovereignty principles and Sustainable Development Goals.

Other Articles

1. Sreejith, K. J., & Baby, S. (2025). *Socio-economic impact of mechanisation through paddy group farming in Kerala: An analysis on farmers' perception. Asian Journal of Agricultural Extension, Economics & Sociology*, 43(9), 547-550.

Paddy cultivation in Kerala is highly labour-intensive, prompting a strong push toward mechanization over the past decade. To address labour scarcity and limited capital among smallholders, collective farming models supported by the State and local governments have been widely adopted. This study assessed farmers' perceptions of the socio-economic impact of mechanization under group farming in Palakkad district, Kerala's leading paddy-growing region. Data were collected from 120 randomly selected farmers using a semi-structured interview schedule. Nine socio-economic impact factors were identified through pilot testing and expert validation, and an overall impact index was computed using Principal Component Analysis. The major perceived benefits included time savings in farm operations, improved livelihood opportunities, and enhanced access to assets. Key determinants of socio-economic impact were extent of mechanization, annual income, area under paddy, extension contact, social participation, innovativeness, and attitude towards collectivism.

2. Chithra, G. (2025). *Comparison of use of mechanical transplanters and manual transplanting for paddy cultivation in Thiruvananthapuram District. Archives of Current Research International*, 25(9), 681-688.

Rice remains Kerala's staple food, yet its cultivation area has sharply declined due to

labour shortages and high wages. Manual transplanting, mainly done by women, is labour-intensive and costly. To evaluate mechanized alternatives, ICAR-KVK, Mitraniketan conducted Front Line Demonstrations during the 2014 and 2017 kharif seasons using 8-row and 6-row self-propelled rice transplanters. Results showed that mechanized transplanting required only three labourers compared to forty in manual methods, reducing cultivation costs by 29.65% and increasing yield from 53.33 q/ha to 65 q/ha. Economic returns and benefit-cost ratio also improved markedly (₹71,684/ha and 2.24 vs. ₹34,083/ha and 1.46). Farmers reported reduced drudgery, timely operations, and better crop establishment. The study highlights mechanized transplanting as a cost-effective and labour-saving technology for sustaining paddy cultivation in Kerala.

Bookchapter

1. Mishra, B. P., Tripathi, O. P., Hazarika, N., & Ghosh, S. (Eds.). (2025). *Recent advances in earth & environmental sciences* (pp. 131-142)

Kerala's coastal agricultural communities are highly vulnerable to climate change, including rising temperatures, altered rainfall patterns, and extreme weather events. This study assessed the economic resilience of farm households across six agroecological units (AEUs) in Kerala's coastal plains using an Economic Resilience Index (ERI) based on absorptive, adaptive, and transformative capacities measured through thirteen indicators. Data were collected via focus group discussions, personal and key informant interviews, and expert consultations. Results revealed variations in resilience: Kuttanad had a lower ERI (0.521) than the overall mean (0.573), while Kaipad (AEU 7) showed the highest resilience (0.677). Key determinants included credit and government support (absorptive), subsidies and diversification (adaptive), and minimum support price and value addition (transformative). The study highlights the need for climate-smart practices, crop diversification, water management, and access to financial and technological resources. Policy support, community initiatives, and investments in resilient infrastructure are critical to strengthening agricultural resilience in Kerala's coastal plains.

Public Policy

Scopus Indexed

1. Sabu, A., & Mohandas, V. (2025). *The impact of international remittances on public debt sustainability in Kerala: Evidence from the FMOLS approach. Statistics, Politics and Policy.*

Remittances from Kerala's migrant workers and professionals constitute a vital financial inflow, surpassing their relative significance in most other Indian states. With public debt nearing 60% of NSDP, these transfers offer a potential buffer for debt sustainability.

Applying Oates' theory within Bohn's debt-sustainability framework using an FMOLS model, and validated through Johansen testing, this study examines the remittance-debt nexus from 1980 to 2023. FMOLS results indicate a deterioration of debt sustainability despite substantial remittance inflows. The findings emphasize the need to reduce market borrowings, enhance the fiscal role of remittances, and promote policies supporting formal transfer channels, source diversification, remittance-linked investment, and financial literacy among migrant households to strengthen Kerala's long-term fiscal resilience and enable more productive use of remittances.

Scopus Indexed

Bookchapter

1. Rajan, S. I., & Krishnakumar, C. S. (2025). *Kerala model of social security program: An overview*. In S. I. Rajan (Ed.), *Handbook of aging, health and public policy* (pp. 1381-1401). Springer..

Kerala state in India has some unique social protection programs for senior citizens like *Aaswasakiranam* and *Vayomithram* combined with implementation of age-friendly governance through Local Self-Government Institutions. The various social security programs which have been decentralized - planned and executed at the local level through Local Self-Government Institutions and Kerala Social Security Mission are described in this chapter, while trying to understand to what extent these programs are useful for the public and which programs can be replicated to other states in the country. There are many centrally sponsored programs, which have been successfully implemented in Kerala. Some of these programs were slightly modified with new names, keeping in mind local realities. Since, the programs are mostly implemented through Local Self-Government Institutions, it ensures that the benefits reach the needy. Unfortunately, sustainability of such innovative programs is under strain because of the increasing financial constraints, which is aggravated after COVID-19. Further, the lack of periodic assessment of the process, efficiency, and outcome of these programs and schemes by an independent external agency is a major drawback.

Other Articles

Labour

1. Alexander, E. (2025). *Changes in the labour market behaviour of women in the context of increasing economic growth and income inequality: the case of the Indian State of Kerala*. *Contemporary South Asia*, 1-17.

Despite progress in reducing gender gaps in health and education, when it comes to employment, women in the South Indian state of Kerala fare much worse than their

male counterparts in Kerala, and their female counterparts in neighbouring states. This has been the story until recently. However, PLFS 2017-18 recorded an increase in the female workforce participation rate in the state. The extensive research on Malayalee women's labour market behaviour, so far, has been in the context of Kerala model categorised by low economic growth and income inequality yet better social development indicators. But the change in the pattern of international migration from Kerala has also triggered transformations in the domestic economy. This, the paper argues, is one of the reasons responsible for the recent change in the pattern of labour market behaviour of women in the state. The paper is based on existing literature, published data and newspaper advertisements.

2. Azad, P., & Fahmida, M. V. (2025). *Skill premium in the Gulf: The impact of IT proficiency on wages of Indian migrant workers. Migration and Development.*

This article investigates the role of information technology (IT) proficiency in shaping the wage outcomes of Indian migrant workers in the Gulf countries, with a focus on Saudi Arabia, the United Arab Emirates and other major destinations. Using primary survey data collected through Pravasi organisations, the study employs an augmented Mincerian framework to assess the impact of both basic and advanced IT skills on earnings. The results indicate that IT proficiency is associated with significant wage premiums, with advanced IT skills yielding higher returns than those attributable to secondary-level education. These findings highlight the growing importance of digital competencies in the Gulf labour market and underscore their relevance for policy discussions on skill development and migrant labour integration.

Gender and Social Inclusion

Scopus Indexed

1. Linshi, P., & Manimekalai, N. (2025). *Gendered and caste tragedies in the coir industries: Evidence from Kerala. Edelweiss Applied Science and Technology, 9(9), 1137-1146*

This study examines the historical evolution of women's participation in Kerala's coir industry, focusing on their role in the spinning sector and the socio-economic contexts shaping their engagement. The research relies on secondary data collected from government reports and previous scholarly studies. A historical and comparative approach was used to analyze women's labor participation across the 1980s, 1990s, 2000s, 2010s, and 2020s. The analysis shows that women remain a significant part of the coir workforce despite persistent challenges such as low wages, gender-based discrimination, and limited opportunities for advancement. Globalization, technological changes, and government policies have significantly influenced their employment patterns, leading to both opportunities and constraints. Women's continued

participation in coir production reflects resilience and underscores their struggle for economic empowerment, social recognition, and gender equality. The findings highlight the need for policy interventions to ensure fair wages, strengthen social protection, and promote inclusive development for women in traditional industries.

2. Srikanth, C., & Dey, S. (2025). *Gender roles in women's labour force participation. IIM Kozhikode Society & Management Review. Advance online publication.*

This study introduces a theoretical framework of women's labour force participation (LFP) decision as a manifestation of two opposing forces-the labour market's 'push' in favour of, and social institutions' 'pull' away from participation. The socioculturally diverse southwestern Indian state of Kerala is chosen as the ideal setting to test this framework. Using data from two rounds of the Kerala Migration Survey (KMS)-2013 and 2018-the study finds that higher levels of education reduce the likelihood that women participate in the labour force. This article also addresses the impact of a shock to migration-the *Nitaqat* system-on women's LFP and finds evidence that long-standing social norms that prevent women's LFP can change under economic crises such as the *Nitaqat* system that caused a large-scale return migration of Muslim emigrants from the Gulf countries. We find that prior to the migration shock, in the Muslim-dominated Malabar region, the strong social norms of the Sunni Muslims permeates across religions, which discouraged women's LFP. Due to the return migration of predominantly Muslim men prompted by the *Nitaqat* system, we find evidence of a more favorable attitude towards women's labor force participation (LFP) in the Malabar region. By studying women's LFP in Kerala, which has a significant proportion of Hindus, Christians and Muslims, the article finds support for LFP decisions as influenced by categorical identity affiliations.

Other Articles

1. Ghose, M. (2025). *Breaking barriers: The impact of education on women's socio-economic empowerment in India. IJAIDR, 16(2)*

Women's education is a key driver of socio-economic empowerment in India, yet gender disparities in access and outcomes persist. This study examines the relationship between women's education and empowerment using data from the Periodic Labour Force Survey (2017-2023), National Family Health Survey-5, and the Women's Empowerment Index. Findings indicate improvements in female literacy (65.46% in 2011 to 70.3% in 2024) and rural labour force participation (24.6% in 2017 to 41.5% in 2022), though significant interstate variations exist. Education positively influences economic participation, decision-making autonomy, health, and social mobility. Government initiatives like *Beti Bachao Beti Padhao* have had mixed effects, improving sex ratio at birth but facing challenges in fund utilisation. The study concludes that while education reduces specific

barriers, addressing socio-cultural, economic, and structural challenges through targeted policies is essential for comprehensive women's empowerment in India.

Growth and Development

Scopus Indexed

1. Anthony, J., & Seiple, E. (2025). *Economic growth and community development through decentralized planning: The case of Thalikulam Vikas Trust in Kerala, India*. *Local Development & Society*, 6(2), 303-320.

Economic development planning in the global South has proven to be a formidable undertaking, riddled with corruption, colossal waste of resources, and underwhelming successes. In 1993, aiming to reform development practices in India, the government of India amended the national constitution to encourage bottom-up development planning, a paradigmatic shift from the top-down approach generally used in the global South. In one Indian state - Kerala - these amendments sparked a "people's planning movement" that over the last two decades has galvanized communities across the state, resulting in development projects that would not have happened otherwise, tangibly improving the quality of many people's lives. In this paper, we review the economic growth and community development outcomes from these amendments in Kerala, examining one local nonprofit, Thalikulam Vikas Trust, and its accomplishments. Our goal is to share our understanding of the causes and consequences of a remarkable grassroots planning experiment in Kerala.

Other Articles

1. Rajeev S., Haokip T.L., Prasad T.K., Jayapal G., & Muhammed Iqbal K. (2025). *Spatial and Socio-Economic Analysis of Scheduled Caste Communities in Palakkad District, Kerala, India*. *Asian Research Journal of Arts & Social Sciences*, 23(8), 75-91.

In Kerala's Palakkad District, this study looks at the land ownership patterns, land use practices, demographics and spatial distribution of Scheduled Caste (SC) communities in 27 panchayats. The results show notable differences in the patterns of settlement, with sparse distributions in Sholayur and Puthur and concentrated SC populations in panchayats like Chalavara, Vaniyamkulam and Lakidi Perur, indicating differing levels of community integration and infrastructure development. Though some regions have larger female populations, demographic analysis reveals a generally balanced gender ratio, which may be a sign of male outmigration or different socioeconomic mobility patterns. Chalavara owns significantly more land than Sholayur, indicating historical differences in resource distribution, according to land ownership data, which shows glaring

2. Mallick, H., Beena, P. L., Jain, R., Pohit, S., & Chaudhuri, C. (2025). *Dynamics of energy consumption, economic growth, and carbon emission in a sub-national economy context of India: Evidence from Kerala. Green and Low-Carbon Economy*

On examining the relationship of energy consumption with economic growth and carbon emission, we provide the evidence that the petroleum consumption growth significantly contributes to GSDP growth of Kerala (as indicated from regression coefficient of 0.70%), whereas electricity consumption growth affects GSDP growth with a time lag (as evidenced from Granger causality and regression coefficient of .13%). In contrast, GSDP growth of the state drives up both electricity and petroleum consumption demand, along with an observed strong elasticity of substitution relationship between consumption of two energy components (coefficients varying from 30% to 66%). We further find that the growth of transportation sector activities measured from transportation output which significantly contributes to gross emissions (as reflected from regression coefficient of .32%) rather than the overall GSDP growth of the state, suggesting that the demand for petroleum product increases with increased income growth without regard for its environmental concerns over the long-run. This is occurring more especially when amounts of CO₂ emission are very much lesser in the state as compared to the national average of all the states in India.

2. Joseph, D., & Jacob, M. (2020). *Role of responsible tourism in economic development: A systematic review of literature. 19(31), 672-681. ISSN 2320-0693.*

Tourism is a major engine of economic development and an important source of employment and foreign exchange earnings in many countries, including India. But the negative effects of tourism activities resulted in the introduction of sustainable tourism practices. Responsible tourism, aimed at sustainable tourism development, has been practiced in the state of Kerala since 2008. This paper examines the implementation of responsible tourism in Kerala state and also reviews the role of responsible tourism in economic development.

3. V. P, V., P. S., S., Gills, R. et al. *Innovative economic livelihood models: techno-economic feasibility analysis of cage fish culture for entrepreneurial development of marginalised communities, Kerala, India. J Glob Entrepr Res 15, 25 (2025)*

Innovative economic livelihood models like cage culture systems leverage creativity, technology and local resources to empower marginalised communities by promoting entrepreneurship and economic self-reliance, leading to sustainable development and inclusive growth. The Science Technology and Innovation (STI) Hub initiatives sponsored by the Department of Science and Technology, Government of India further this empowerment by providing access to knowledge, training and resources, significantly

aiding the socio-economic development and inclusion of the Scheduled Caste (SC) communities. The study highlights the benefits of SHGs in economic livelihood models like cage culture, particularly for SC communities, by enhancing economic opportunities, strengthening social bonds and fostering a collaborative approach to aquaculture for sustainable development and inclusive growth. The study revealed that cage fish farming led by Self-Help Groups (SHGs) is financially viable, as evidenced by a benefit-cost ratio exceeding one, and increases participants' Composite Empowerment Index (CEI) from 1.04 to 3.61, showing marked improvements in economic empowerment, self-esteem, decision-making and confidence. While participants face challenges such as high capital investment and costs of seeds as well as feed, strong social networks and interventions of STI-Hub help to mitigate issues like poaching and lack of awareness about fisheries schemes. Planned interventions in the form of appropriate policy guidelines to establish local finfish hatcheries, supported by government incentives to stimulate private investment and develop affordable alternative feed to reduce operational costs, enhancing the sustainability of cage culture operations are outlined to harness the potential of the livelihood model.

Book chapter

Scopus Indexed

1. Kansra, P., Kajla, T., & Singh, N. (Eds.). (2025). *Unveiling bleisure travellers: Exploring novel dimensions for enriching social consumer engagement using big data analytics*. Emerald Publishing Limited.

The Indian hospitality sector has propelled the growth of the service industry in recent years. The dawn of globalization and technological progress has transformed the healthcare sector multifacetedly. An array of tourist attractions and healthcare services enhances Kerala's medical tourism appeal. The present study aims to investigate the influence of wellness, medical value travel (MVT), and tourism on the 'bleisure' in Kerala. This study examines databases such as Emerald, Scopus, ResearchGate, and Google Scholar. Kerala holds a strong position for tourists looking for an agglomeration of traditional Ayurvedic practices with contemporary remedies that draw tourists from foreign countries supported by safety and security, cost-effectiveness, state-of-the-art medical technology, and developed infrastructure. In Kerala's tourism sector, wellness facilities, and spa resorts augment therapeutic benefits and visitor revenue. Availability and accessibility to such tourist attractions provide medical and leisure experiences by integrating therapy and recreation.

What is new(s) from GIFT

A. Seminars/Webinars

GIFT organised a two-day seminar on Post-COVID Development Challenges and Response: Kerala through the Lens of State Budgets; August 5-6, 2025

The seminar aimed to deliberate on the broad issue of how the state's perspective on development has evolved in the context of the challenges, as reflected in its responses and outcomes. More specifically, the objective is to reflect on how Kerala has attempted to leverage its institutional strengths, participatory planning legacy, and innovative policy frameworks to chart a post- COVID development paradigm that is inclusive, growth-oriented, and climate-conscious. The seminar, therefore, aimed to provide a forum for critically examining Kerala's development perspective and performance in the aftermath of post-pandemic development challenges, as well as the role of the state in this context. Since the annual budget is the crucial policy document that articulates its perspectives and priorities, it is only appropriate to address the issues through the lens of its budgets. The seminar, therefore, aimed to foster an informed academic and policy discourse on how Kerala's budgets have functioned, both as an instrument for responding to challenges and as a blueprint for structural transformation. Particular attention will be paid to sectoral perspectives and performance, with due consideration for the knowledge economy orientation, entrepreneurship, and innovation infrastructure, as well as the transition in productive sectors in sync with the state's resource endowment, sustainability-oriented development, and the evolving fiscal federal context.

The seminar included five major areas with eight sessions in two days. Hon'ble Finance Minister Shri K N Balagopal inaugurated the two-day seminar and Shri K R Jyothish IAS, ACS (Finance) Government of Kerala delivered the keynote address. Eminent scholars from NIPFP, Kerala State Planning Board, experts from different sectors graced the seminar with the constructive deliberations. The seminar concluded with a round table - Kerala towards a Strategic Development Agenda where Shri K M Chandashekar IAS (Retd.), Former Cabinet Secretary & Distinguished Professor of GIFT chaired the panel discussion. More than 230 participants participated in the seminar.

GIFT organized a webinar was conducted on RBI Financial Stability Report June 2025 on August 21, 2025.

The webinar was on the financial stability report, Shri Ayyappan R Nair, General Manager, Stability Department, RBI presented the report. Dr Anoop S Kumar moderated the

session. Prof K J Joseph welcomed the gathering, Dr Saraf A, Registrar GIFT delivered the special address and Dr. Kiran Kumar Kakarlapudi proposed the vote of thanks.

A round table was organised collaboratively by GIFT and Kerala State Planning Board on the Impact of U S Penal Tariff with a Special Focus on Kerala on August 22, 2025.

The discussion was to deliberate on the potential impact of the US penal tariffs on Indian Economy in general and Kerala in particular. The round table aimed to galvanize and politicize trade by bringing together different stakeholders from academia, industry and policy circles. The round table discussion was conducted as a whole day program with three sessions. Hon'ble Finance Minister Shri K N Balagopal inaugurated the round table discussion and Shri K R Jyothilal IAS, ACS (Finance) Government of Kerala explained about the round table. Prof V K Ramachandran chaired the session. Shri K M Chandashekhar IAS (Retd.), Former Cabinet Secretary & Distinguished Professor of GIFT delivered the Special Keynote and Shri Rajesh Agrawal IAS, Commerce Secretary Designate, Government of India delivered the Keynote Address.

GIFT organised a Book Talk on Schisms and Isms Kerala: from the Twilight of Monarchy to the Present on August 29, 2025.

The speaker of the book talk was Shri R Mohan, IRS, Former Income Tax Commissioner and Honorary Fellow of GIFT, Shri K M Chandrasekar, IAS, Former Cabinet Secretary, GOI chaired the session and Shri C P John, former Member, Kerala State Planning Board acted as the discussant. Prof K J Joseph welcomed the gathering and Dr Saraf A, Registrar GIFT delivered a vote of thanks.

GIFT organised a seminar on GST and Its Impact on Local Self-Government Revenue: "A Study with Special Reference to Kerala on September 12, 2025

The presenter of the paper was Dr Vidya V Devan, Assistant Professor of Law, GIFT, Prof K N Harilal, Chairman 7th State Finance Commission, Govt of Kerala chaired the session. Prof K J Joseph, Director, GIFT welcomed the gathering.

Abstract: In India, Local self-governments play a key role in fostering participatory democracy as they deliver essential civic services, implement welfare programmes, and address community needs at the grassroots level. Their efficiency depends heavily on adequate and autonomous financial resources, traditionally secured through taxes such as property, profession, entertainment, and advertisement tax, along with fees and State-assigned revenues. The introduction of the Goods and Services Tax (GST) in 2017 subsumed several key local taxes, thereby reducing the independent revenue-generating capacity of urban and rural local bodies. The introduction of GST directly affected the revenue base of local bodies by eliminating entry tax, advertisement tax, and by substituting the entry in the State List, which empowered the States to collect entertainment tax. While GST streamlined taxation at the state and national levels, it

constrained the fiscal autonomy of local bodies, increasing their dependence on transfers and grants. This study examines the legal and fiscal implications of GST on the revenue base of local self-governments in Kerala. The study also undertakes a comparative analysis across States, focusing on the strategies they adopted to address the implications of GST.

Seminar Co ordinators

Dr Kiran Kumar Kakarlapudi and Dr Geetha Rani V

B. Teaching and Training programmes

1. Post Graduate Diploma in GST (PGDGST)

The inauguration of PGD GST Batch 2025-26 was held on 26th July 2025 which was inaugurated by Shri Krishnan, Former member CBEC and Special Secretary Government of India. Followed by the Inaugural ceremony, an orientation class was conducted for familiarizing the students about the course and practical IT platform. Classes for the new batch of PGD-GST commenced on 2nd August 2025. The Convocation of PGD GST Batch 2024-25 was held on 08th August 2025 at 3.30 pm. Memento and certificates were presented to Smt Susan Sabeena K S ,Smt. B Krishnasree and Smt. Varsha C V who have secured the first, second and third rank respectively. The total strength of the current batch of PGD-GST 2025-26 is 200. Soft copies of all the updated study materials were uploaded through the google classroom for the present batch and more than 15 classes were taken by the faculty members. Negotiations are going on for renewing the MoU with CAST Chapter (the platinum channel partner, Nergy Vidya) for initiating the practical training for the students.

Coordinators Dr. Meenu Mohan & Dr Geetha Rani V

For more details: <https://www.gift.res.in/index.php/course/detail/14/PGD-GST>

2. PhD programme

The activities of the Ph.D programme during July 2025 to September 2025 are listed below. The course work for the sixth batch Ph.D is ongoing. The work progress seminar presentations of the first three batches were held from 28th July 2025 to 31st July 2025. A Research Committee (RC) meeting was held on 29th July 2025 to discuss Ph.D related matters. The special lectures on 'GDP estimation in India' by Prof. D Narayana were conducted on 7th and 8th August 2025. An online RC meeting was held on 22nd September 2025 to discuss the Ph.D related matters.

Paper Presentations

Aswathy M A, GIFT PhD Scholar presented a paper titled ' Public Healthcare

Expenditure and the Size and Quality of the Health System in India' at the 25th Biennial Conference by Association of Institutes for Economic and Financial Studies (AIEFS-2025) held at Institute of Rural Management Anand (IRMA), Gujarat from 28/07/2025 to 30/07/2025.

Divya Kannan K R, GIFT PhD Scholar presented a paper titled 'Can Public Infrastructure Drive Regional Manufacturing Performance: Evidence from Indian States' at the 81st Annual Congress of the IIPF at the United States International University - Africa in Nairobi, Kenya, August 20-22, 2025.

Niveditha P S, GIFT PhD Scholar presented a paper on ' Rethinking Reserve autonomy of global south' in Pre G20 conference held at Johannesburg, South Africa.

Arun Paul, GIFT PhD Scholar presented a paper titled 'BEPS and FDI Inflows: The Experience of Lower Middle Income Countries' at Global Tax Symposium, Organized by University of Valencia, Spain from September 15 -16 (Online Participation).

Gopika G, GIFT PhD Scholar presented a paper titled 'Efficiency analysis of public expenditure in India: A sub-National Study' at the 81st Annual Congress of the IIPF at the United States International University - Africa in Nairobi, Kenya, August 20-22, 2025.

Vandanan S, GIFT PhD Scholar presented a paper titled 'Recognizing the Value of Women's Time: A Pathway to Sustainable and Inclusive Development in Rural Areas' at the International Conference on Artificial Intelligence in Economics, Finance & Management (CEFM 2025), held at Bharata Mata Institute of Management, Kochi

Vandanan S, GIFT PhD Scholar presented a paper titled 'Technological Disruption in Diary Cooperatives : A Case of Frugal Innovation', at the Two-Day International Conference on AI-Driven Global Trends in Commerce, at the Mangalore University.

Workshops attended

Shagishna K, GIFT PhD Scholar participated in a one-day workshop on 'Spatial Econometrics for Evidence-Based Policy Design: From Maps to Models' organized by Madras Institute of Development Studies (MIDIS) as a part of its Development Analytics Series conducted on 9th August 2025.

Vipasha Ray Hajong, GIFT PhD Scholar attended the Data User's Conference on Time-Use Survey-2024 by MoSPI in association with CDS held on 22nd September 2025.

Gopika G, GIFT PhD Scholar attended online workshop on *Indiastat.com* organized in collaboration with ICSSR on September 17,2025.

Anuraj P K, GIFT PhD Scholar attended online workshop on *Indiastat.com* organized in collaboration with ICSSR on September 17,2025.

Vandan S, GIFT PhD Scholar attended the Third Summer Training Programme in Public Finance held at the Madras School of Economics, Chennai from June 30 to July 11, 2025.

Annie Antony Pinto, GIFT PhD Scholar attended the Third Summer Training Programme in Public Finance held at the Madras School of Economics, Chennai, from June 30 to July 11, 2025.

Jubairiya P M, GIFT PhD Scholar attended the Third Summer Training Programme in Public Finance held at the Madras School of Economics, Chennai, from June 30 to July 11, 2025.

Muhammed Ijlal Yasir M K, GIFT PhD Scholar attended the Third Summer Training Programme in Public Finance held at the Madras School of Economics, Chennai, from June 30 to July 11, 2025.

Manju Preman, GIFT PhD Scholar attended the Third Summer Training Programme in Public Finance held at the Madras School of Economics, Chennai, from June 30 to July 11, 2025.

Shahid P K, GIFT PhD Scholar attended the Third Summer Training Programme in Public Finance held at the Madras School of Economics, Chennai, from June 30 to July 11, 2025.

Sona Muraleedharan, GIFT PhD Scholar attended the Third Summer Training Programme in Public Finance held at the Madras School of Economics, Chennai, from June 30 to July 11, 2025.

News Paper Articles

Zubair, M. (2025). Static and Dynamic Connectedness between OPEC Oil Prices and Indian Equities: A Sectoral Analysis. *NMIMS Management Review*, 33(3), 159-170.

Journal Publications

Joseph, J. P., Kumar Dash, S. (2025). Monetary policy transmission in India-a coefficient-restricted VAR approach. *Applied Economics*, 1-21.

How does monetary policy transmission happen in India?, *Ideas For India*, October 27, 2025 (with Santosh Kumar Dash).

Thacha Paramban, S., & Anuraj, P. K. (2025). Bidirectional Fiscal Synchronization in Karnataka: An Empirical Analysis. *Aarthika Charche*, 10(1).

https://fpibengaluru.karnataka.gov.in/uploads/media_to_upload1761036564.pdf
Publication Date: 22/09/2025

Invited lectures/ Talks

Anuraj P K, GIFT PhD Scholar served as a resource person to handle a session on " Building the Future: Education and Networking for Career Growth", organised by the Department of Commerce in association with career Guidance Cell of St. Pius X College Rajapuram, Kasaragod, on August 1, 2025.

Course Coordinators: Dr Sumalatha and Dr Renjith P S

3. Research Capacity Building Program (RCBP)

The **Research Capacity Building Program (RCBP)** is an initiative of the Gulati Institute of Finance and Taxation (GIFT) in collaboration with the Kerala State Higher Education Council (KSHEC), aimed at enhancing research competence and job market readiness among Students, scholars, faculty, and professionals. The forthcoming course on "**Data Analytics Using Python**" will **commence on 17th November 2025 and span three months, concluding in January 2026**. It is designed to equip participants with essential skills in data handling, visualisation, and analysis using Python, fostering the ability to apply analytical tools for academic and policy-oriented research. The program integrates lectures, demonstrations, and hands-on sessions, ensuring both conceptual clarity and practical exposure. By developing digital and analytical proficiency, RCBP seeks to empower participants to conduct high-quality, evidence-based research and contribute to the growing job market skill requirement among youth in Kerala.

Course Coordinators: Dr Aswathy Rachel Varughes and Dr Akhil M P

C. Publications

1. Kerala Tax Reporter (KTR)

April, May and June 2025 issues of KTR published Online and offline.

<https://www.gift.res.in/ktr>

2. Innovation and Development

A Routledge journal from GIFT, Volume 15, No. 2 (2025) published, Editor in Chief, K J Joseph.

For details, please visit <https://www.tandfonline.com/toc/riad20/current>

3. Weekly update on Finance, Taxation and the Indian Economy

This is an attempt by the Young Scholar' Forum in GIFT, led by Smt Soudhamini G S, Assistant Librarian to update on important developments on Finance, Taxation and the Indian economy. Twelve issues of Weekly updates published during July to September 2025 which are available in GIFT Website. Latest issue: 22-26 September 2025.

For details, please visit https://www.gift.res.in/index.php/publish/publish_list/14/Weekly-Updates-on-Finance

4.Monthly Content Alert from GIFT Library

The GIFT library provides a monthly content alert service, extensively designed to support the research endeavors of our PhD scholars. This attempt provides a selection of recently published journal article titles, abstracts, and links, delivering them directly to the GIFT community each month. The content alert service is more than just a monthly update and the initiative aims to be an indispensable tool for scholars, providing them with timely access to the latest research developments in their fields. It is drawn from a wide array of reputed journals.

Twelve issues of the content alert service have been published, covering the period from July to September 2025. The preparation of this content alert is led by Smt Soudhamini G S, Assistant Librarian, GIFT. Latest issue: October 8, Vol. 9. Part 4, 2025

D. Faculty Publications

1.GIFT Discussion Paper

Akhil M P and Geetha Rani V Infrastructure Cost Escalation in Kerala: Structural Determinants and Policy Insights (2025), **GIFT Discussion Paper Series No.6/2025**

Abstract: This study systematically analyses the factors contributing to elevated infrastructure costs in Kerala, examining the complex interplay of geographical, climatic, and socio-economic variables that result in higher construction and maintenance expenditures relative to the national average. The study employs a comparative analytical approach utilizing secondary data from authoritative sources, including the RBI Handbook of Statistics on Indian States, Economic Reviews, and state budget documents. Findings reveal that the state's unique topography, high population density, elevated labour costs, and stringent environmental constraints collectively escalate the overall cost of infrastructure development. The paper discusses the resultant fiscal implications and proposes concrete policy recommendations, such as enhanced intergovernmental transfers and targeted grant-in-aid mechanisms, to formally acknowledge and address the state's structural cost disadvantage and promote equitable development across the Indian federation.

Keywords: Fiscal Federalism, Infrastructure Costs, Structural Disadvantage, Intergovernmental Transfers, Cost Disparity

https://www.gift.res.in/wp-content/uploads/2025/10/Infrastructure-cost-escalation-in-Kerala-Structural-determinants-and-policy-insights-_Akhil-M-P_Geetha-Rani-V1.pdf

K J Joseph and Kiran Kumar Kakarlapudi : The Income Distance Paradox Devolution Conundrum for the Finance Commission (2025), GIFT Discussion Paper Series No.7/2025

Abstract: The study highlights two key issues of concern for the 16th Finance Commission. Declining progressivity in devolution is evident in the downward trend in the share of lower-income states in the divisible pool, as well as a paradox of declining fiscal capacity among states with rising per capita income. Neither low-income nor high-income states benefited from the income distance criterion, which had the highest weight in the devolution, assuming a positive relationship between fiscal capacity and per capita income. The study recommends adjustments to the weights of the income distance criterion and population to ensure that performers are not penalised while progressivity is maintained.

Keywords: Fiscal Devolution, Finance Commission, Fiscal Capacity and Fiscal Equalisation

https://www.gift.res.in/wp-content/uploads/2025/10/The-Income-Distance-Paradox-Devolution-Conundrum-for-the-Finance-Commission-_K.-J.-Joseph_Kiran-Kumar-Kakarlapudi.pdf

Aswathy Rachel Vaughese, B S Sumalatha and Anitha Kumary L: Intergovernmental Transfers and the Fiscal Federalism in India: Rethinking the Divisible Pool and Grants-in- Aids Framework (2025), GIFT Discussion Paper Series No.8/2025

Abstract: India's fiscal federal structure is undergoing a critical phase marked by widening asymmetries in intergovernmental resource sharing. Despite the rapid expansion of the Union government's revenue base, the divisible pool of taxes shared with states has contracted, primarily due to the growing prevalence of cesses and surcharges that are excluded from devolution. Simultaneously, the composition of fiscal transfers has shifted towards conditional, non-Finance Commission grants, reducing the share of unconditional transfers that are essential for state-level fiscal autonomy. This study examines the evolving dynamics of India's fiscal federal resource-sharing framework, with particular emphasis on the changing balance between tax devolution and grants-in-aid. Using longitudinal data from Union budgets and Finance Commission reports, the analysis reveals a persistent and deepening vertical fiscal imbalance coupled with increasing centralisation in the transfer system. The paper argues that the Sixteenth Finance Commission must recalibrate the grant architecture and redefine the divisible pool to enhance equity, efficiency, and fiscal sustainability in India's intergovernmental fiscal relations.

Keywords : fiscal federalism, divisible pool, grants-in-aid, devolution

<https://www.gift.res.in/wp-content/uploads/2025/10/Intergovernmental-Transfers.pdf>

2. Faculty Involvement and publications

a. Faculty Publications

- Vidya V Devan (2025). 'Kerala's fiscal rules must include an escape clause', in Policy Circle on 29 July 2025, <https://www.policycircle.org/opinion/kerala-fiscal-deficit-frbm/F>
- Lekha D Bhat, Sumalatha B S and Chitra K P (2025). Domestic Workers in South India and North East: A Situational Analysis from Dignity and Rights Perspective, Bloomsbury Publishing India, ISBN: 9789369527731 (15th August 2025).
- Meenu Mohan (2025). "The dark reality of health rights of interstate migrant workers in unorganised sectors: examination from a legal standpoint" in Contemporary Justice Review (Routledge) (SCOPUS Indexed) (2025) on 1st September 2025 www.tandfonline.com/journals/gcjr20
- Meenu Mohan , Aswathy Rachael Varghese and Ajitesh Menon (2025). "How Systemic and Economic Factors Affect Stamp Duty and Registration Fees in Kerala, India," has just been published in the Journal of Property Research (Routledge) (SCOPUS Indexed) on 9th August 2025. <https://www.tandfonline.com/eprint/N2QME6MNUDFQZURVATFE/full?target=10.108>
- Sumalatha B S and Anitha Kumary L, GST parishkaranam Keesha kaliyavum' published in Mathrubhumi malayalam daily on 19/09/2025.
- Anitha Kumary L , GST rate reduction and revenue loss to Kerala, published in Malayalam in Chintha Weekly, Vol 63, Issue 6, September 2025

b. Faculty Presentations

- Dr. Vidya V Devan delivered a lecture titled "GST @ Eight: Evaluating India's Landmark Tax Reform (2017-2025)" as part of GST DAY observation on 1st July 2025 at Markaz Law College, Knowledge City, Calicut.
- Dr. Vidya V Devan delivered a lecture on the topic "GST 2.0: Rate Revisions and Its Implications" on September 27, 2025, via online at Al Azhar Law College, Thodupuzha, Ernakulam.
- Dr Meenu Mohan Presented a paper titled "An Examination of Healthcare Rights of Interstate Migrant Workers in Kerala: Through the Lens of Law and Policy" at the Global Convergence Conference (GCC) 2025, held at the Faculty of Law, University of Colombo, Sri Lanka, on 13-14 September 2025 and co-chaired the session on "Global Health Law and Pandemic," in the Conference.

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