



'A Study on the Impact of Goods and Services Tax (GST) on the Operations and Profitability of Cloud Kitchen Businesses in India'

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Abstract

The Goods and Services Tax (GST), introduced in India on July 1, 2017, represents one of the most significant indirect tax reforms since independence, replacing a fragmented multi-layered tax system with a unified destination-based consumption tax (Ministry of Finance, 2017). Among the sectors most distinctly affected is the cloud kitchen industry — a rapidly growing segment of the food-tech ecosystem characterized by delivery-only restaurant operations devoid of dine-in facilities (Desai & Nair, 2021).

This research paper investigates the multi-dimensional impact of GST on the operational framework and financial profitability of cloud kitchen businesses in India. The study examines how GST rates — 5% without Input Tax Credit (ITC) for restaurant-category businesses vs. 12–18% with ITC for food manufacturers — compliance burdens, and structural tax implications have reshaped cost structures, pricing strategies, and overall business viability (Patel & Singh, 2021).

The paper relies entirely on secondary data drawn from NRAI industry reports, GSTN publications, FSSAI guidelines, government notifications, and peer-reviewed academic literature. Key findings indicate that the denial of ITC under the 5% GST slab, combined with 18% GST on platform commissions and packaging materials, significantly erodes cloud kitchen profitability — particularly for small and micro operators (Raghavan, 2022; Nair & Krishnan, 2022).

Keywords: *GST, Cloud Kitchen, Input Tax Credit, Food-Tech, Profitability, Operations, Compliance, India*

1. Introduction

1.1 Background

India's food service industry, valued at approximately ₹5.99 lakh crore in 2023, has undergone a dramatic transformation driven by digital penetration, changing consumer lifestyles, and the post-pandemic pivot to food delivery platforms (NRAI, 2023). Within this ecosystem, cloud kitchens have emerged as a disruptive and capital-efficient business model that eliminates the need for prime real estate, front-of-house staff, and dine-in infrastructure, pivoting entirely to delivery-based revenue streams facilitated by platforms such as Swiggy, Zomato, and Dunzo (Agarwal, 2021).

The introduction of GST in 2017 created a paradigm shift in the tax treatment of food businesses. Prior to GST, restaurants and food service entities navigated a complex web of VAT, Service Tax, and Octroi — a system characterized by cascading taxes and jurisdictional inconsistencies (Kumar, 2018). GST replaced these with a tiered structure: 5% GST without ITC for non-AC restaurant establishments, and 18% GST with ITC for air-conditioned or liquor-serving restaurants — subsequently revised in 2019 to deny ITC across all restaurant categories (Ministry of Finance, 2017).

1.2 Problem Statement

Despite the rapid growth of cloud kitchens in India, the impact of GST on their specific operational and financial characteristics remains inadequately researched. Cloud kitchens occupy a regulatory grey area — classified as restaurant businesses for GST purposes yet operating without any of the typical restaurant infrastructure — making them uniquely vulnerable to adverse tax treatment (Desai & Nair, 2021). There is a clear need to assess whether GST has acted as a facilitator or a constraint for this business format, particularly in terms of ITC eligibility, compliance complexity, cost burden, and pricing pressures (Verma & Tiwari, 2020).

1.3 Objectives of the Study

- To understand GST and cloud kitchen concepts.
- To analyze GST structure applicable to cloud kitchens.
- To examine positive and negative impacts of GST on cloud kitchens.

1.4 Significance of the Study

This study holds academic significance for scholars researching tax policy and food-tech industries, and practical significance for cloud kitchen entrepreneurs, tax consultants, and policymakers. As India's cloud kitchen market is projected to reach ₹2,000 crore by 2025 at a CAGR of 12% (Iyer, 2023), understanding how GST shapes the sector's financial viability and operational efficiency is critical for sustainable industry growth.

1.5 Scope and Limitations

This study is based entirely on secondary data sources including government publications, industry reports, academic journals, and legal notifications pertaining to GST and the cloud kitchen industry in India. The study covers the GST period from July 2017 to March 2025. Limitations include the rapidly evolving nature of GST regulations, variation in business models across cloud kitchen operators, and the limited availability of cloud kitchen-specific financial disclosures in the public domain.

2. Literature Review

2.1 GST and the Indian Tax Ecosystem

Kumar (2018) examined the macro-economic impact of GST in India and found that it significantly reduced the cascading effect of taxes across supply chains by unifying VAT, Service Tax, and Excise Duty. However, SMEs faced initial compliance difficulties due to complex return filing procedures. Jha and Gupta (2019) found that compliance costs consumed 2–4% of revenue for micro businesses, a burden that falls disproportionately on small-scale operators such as cloud kitchens.

Verma and Tiwari (2020) argued that the food sector's multi-rate GST structure — spanning 0%, 5%, 12%, and 18% — created confusion and compliance inefficiency, and recommended a simplified two-rate framework for food businesses. Saxena and Gupta (2019) further documented a structural disconnect in GST's food sector application, where manufacturers benefited from ITC on packaging inputs, but restaurant-classified downstream businesses at the consumer end could not claim similar credits.

2.2 Cloud Kitchen Industry in India

Desai and Nair (2021) provided the foundational definition and taxonomy of cloud kitchen models — standalone, aggregator-owned, and hybrid — and highlighted that regulatory ambiguity, particularly around GST classification, posed the most significant operational risk. Agarwal (2021) documented that 55% of cloud kitchen operators across Delhi, Mumbai, and Bengaluru considered GST-related costs and compliance activities as 'significantly burdensome,' placing GST compliance among the top-5 operational challenges.

Iyer (2023) projected India's cloud kitchen market to grow to ₹2,000 crore by 2025, identifying GST rationalization, FSSAI licensing reform, and real estate costs as the three key policy areas requiring intervention for sustainable growth. Mehrotra (2022) found that 42% of micro cloud kitchen operators were either unregistered or operating under the

composition scheme, creating a dual-track industry in which compliant operators faced structurally higher costs than informal competitors.

2.3 GST Impact on Operations and Profitability

Patel and Singh (2021) quantified the financial impact of ITC denial under the 5% GST slab, estimating that foregone ITC for mid-sized restaurant businesses ranged between 4–7% of annual revenue. Raghavan (2022) calculated that for a cloud kitchen earning ₹1 lakh in monthly revenue, the combined impact of platform commissions and 18% GST on those commissions reduced effective revenue by 33–35%. Reddy and Rao (2021) further established that cloud kitchens effectively bore a 7.5–9% net tax burden on revenue — significantly above the 5% headline rate — due to non-creditable taxes embedded in input purchases.

Nair and Krishnan (2022) surveyed 50 food-tech startups and found that 68% reported reduced EBITDA margins post-GST, with ITC ineligibility and rising packaging costs as the primary drivers. Bhatt and Shah (2020), using financial data from listed QSR companies, documented a 3–5 percentage point decline in net profit margins in the first two post-GST years. Sharma and Mehta (2020) similarly found that the hospitality sector struggled to pass on tax-driven cost increases to price-sensitive consumers, forcing operators to absorb the burden internally.

2.4 Compliance, Consumer Behavior, and Policy

Chandra (2022) analyzed the TCS mechanism applicable to food aggregators under Section 52 of the CGST Act and found that TCS compliance created significant cash flow pressures for small cloud kitchen vendors. Mishra (2019) documented that GST's aggregator-as-tax-collector framework added reconciliation complexity that many small operators were ill-equipped to manage. Pillai and Thomas (2021) evaluated the GST composition scheme and found it was not a viable long-term option for growing cloud kitchens due to ITC ineligibility and inter-state supply restrictions.

Bose and Chatterjee (2020) found that consumer prices in organized food businesses rose by 6–9% in the first year post-GST, and Roy and Banerjee (2021) documented a 12–18% decline in repeat order frequency among value-conscious consumers in Tier-2 cities following these price increases. Sinha and Pandey (2023) highlighted the dual burden of 18% GST on packaging materials — simultaneously raising costs and discouraging eco-friendly alternatives — and recommended a reduced rate or exemption for sustainable packaging inputs used by food businesses.

2.5 Research Gap

A comprehensive review of existing literature reveals that while GST's sectoral impact has been well-studied for manufacturing, retail, and traditional restaurants, no study has specifically and exclusively examined its combined operational and financial impact on cloud kitchens as a distinct business format. This dissertation addresses that gap by synthesizing secondary evidence across all relevant dimensions — GST structure, ITC impact, compliance burden, profitability, and consumer behavior — through the specific lens of the cloud kitchen business model.

3. Research Methodology

3.1 Research Design

This study adopts a descriptive and analytical research design based entirely on secondary data. A descriptive approach is used to map the GST framework as it applies to cloud kitchens, while an analytical approach is employed to examine its quantitative impact on cost structures and profitability metrics drawn from published sources (Kumar, 2018; NRAI, 2023).

3.2 Data Sources

This study relies exclusively on secondary data from the following sources:

- Government publications: Ministry of Finance GST notifications, CBIC circulars, GSTN quarterly compliance reports (GSTN, 2024).
- Industry reports: NRAI India Food Services Report 2023, FSSAI cloud kitchen licensing guidelines (FSSAI, 2023).
- Academic journals: Peer-reviewed articles on GST impact, food-tech economics, and tax policy published between 2017 and 2023.
- Legal sources: CGST Act 2017, relevant GST Council meeting minutes and rate revision notifications.

3.3 Analytical Framework

The study employs a cost-benefit analytical framework to assess GST's impact across four dimensions drawn from secondary literature: (1) compliance cost burden (Jha & Gupta, 2019), (2) Input Tax Credit availability and utilization (Patel & Singh, 2021), (3) pricing strategy adaptation (Bose & Chatterjee, 2020), and (4) net profitability change pre- and post-GST (Bhatt & Shah, 2020).

Dimension	Metric (from Secondary Sources)	Key Reference
Compliance Burden	Compliance cost as % of revenue	Jha & Gupta (2019)
ITC Utilization	Foregone ITC as % of revenue	Patel & Singh (2021)
Pricing Impact	Consumer price change post-GST	Bose & Chatterjee (2020)

Dimension	Metric (from Secondary Sources)	Key Reference
Profitability	EBITDA & net margin change	Bhatt & Shah (2020)

3.4 Hypotheses

- H1: GST has significantly increased the compliance burden on cloud kitchen businesses in India.
- H2: The denial of ITC under the 5% GST slab has adversely affected the profitability of cloud kitchen operators.
- H3: GST has led to upward price adjustments in cloud kitchen menus, negatively affecting consumer demand.
- H4: Larger cloud kitchen businesses benefit disproportionately from GST compared to smaller operators.

4. Data Analysis & Findings

4.1 GST Rate Structure Applicable to Cloud Kitchens

Based on the Ministry of Finance (2017) and CBIC circulars, cloud kitchens in India are classified under two primary GST categories depending on their registration and operational structure:

Category	GST Rate	ITC	Basis
Standalone Cloud Kitchen	5%	No	Restaurant classification (Ministry of Finance, 2017)
Aggregator-Listed Kitchen	5%	No	Treated as restaurant service
Food Manufacturer/Processor	5% or 12%	Yes	Manufacturing classification
Composition Dealer (< ₹1.5 Cr)	1–5% (composite)	No	Section 10, CGST Act 2017

As documented by Patel and Singh (2021), 78% of cloud kitchen operators fall under the 5% without-ITC category. Key inputs — packaging materials (18% GST), kitchen equipment (12–18%), and professional services (18%) — cannot be offset against output tax liability, creating a structural cost disadvantage relative to manufacturing-classified food businesses (Saxena & Gupta, 2019).

4.2 Positive Impacts of GST on Cloud Kitchens

GST has brought several structural improvements for cloud kitchen businesses. Kumar (2018) established that the elimination of the cascading tax effect reduced effective tax on raw material supply chains. Fresh fruits, vegetables, and unprocessed food items are exempt at 0% under GST, reducing input costs on core ingredients compared to the pre-GST VAT regime (Ministry of Finance, 2017). Additionally, Jha and Gupta (2019) noted that the digitization of compliance through the GSTN portal — e-invoicing, digital return filing, and input credit matching — has improved record-keeping practices among formal cloud kitchen operators.

Mishra (2019) further observed that GST brought greater uniformity in taxation across states, eliminating entry taxes, Octroi, and state-level VAT disparities that previously complicated multi-city cloud kitchen expansion. For operators seeking to scale across India, this standardization represented a significant operational improvement (Iyer, 2023).

4.3 Negative Impacts of GST on Cloud Kitchens

The denial of ITC under the 5% restaurant GST rate is the most consequential negative impact on cloud kitchen profitability. Patel and Singh (2021) estimated foregone ITC at 4–7% of annual revenue for mid-sized operators. Reddy and Rao (2021) calculated that cloud kitchens effectively bore a 7.5–9% net tax burden on revenue — significantly above the 5% headline rate — due to non-creditable taxes embedded in input purchases.

Raghavan (2022) documented that 18% GST on platform commissions charged by Swiggy and Zomato (typically 25–30% of order value) further compresses margins, raising the effective deduction to 33–35% of revenue for aggregator-dependent kitchens. Chandra (2022) identified TCS compliance under Section 52 of the CGST Act as an additional cash flow burden. Sinha and Pandey (2023) highlighted that 18% GST on packaging materials raised packaging costs by an estimated 6–10% compared to pre-GST levels

Impact Area	Pre-GST	Post-GST	Net Effect	Source
Raw Materials (F&V)	VAT 5%	0% (exempt)	Positive	Ministry of Finance (2017)
Packaging Materials	VAT 5–12.5%	GST 18%	Negative	Sinha & Pandey (2023)
Kitchen Equipment	VAT+Excise ~20%	GST 12–18%	Slightly Positive	Kumar (2018)
Platform Commission	Service Tax 15%	GST 18%	Negative	Raghavan (2022)

Impact Area	Pre-GST	Post-GST	Net Effect	Source
ITC on Inputs	Available (partial)	Denied (5% slab)	Negative	Patel & Singh (2021)
Interstate Compliance	Multiple state taxes	Unified GST	Positive	Mishra (2019)

4.4 Impact on Pricing and Consumer Demand

Bose and Chatterjee (2020) documented a 6–9% average increase in consumer prices in the organized food sector following GST implementation. Roy and Banerjee (2021) found that these price increases triggered a 12–18% decline in repeat order frequency among value-sensitive consumers in Tier-2 cities. Given the highly price-elastic nature of online food delivery consumers — who can instantly compare alternatives across aggregator platforms — cloud kitchens face a constrained ability to pass on tax-driven cost increases (Raghavan, 2022). Bhatt and Shah (2020) confirmed that most operators instead absorbed cost increases internally, accepting margin compression of 3–5 percentage points.

4.5 Impact on Profitability

Nair and Krishnan (2022) surveyed 50 food-tech startups and found that 68% reported reduced EBITDA margins post-GST, with ITC ineligibility and rising packaging costs as the primary drivers. Bhatt and Shah (2020), using financial data from listed QSR companies, documented a 3–5 percentage point decline in net profit margins in the first two post-GST years. Mehrotra (2022) found that 42% of micro cloud kitchen operators opted for the composition scheme or remained unregistered to avoid compliance costs.

Profitability Metric	Pre-GST (Est.)	Post-GST (Est.)	Change	Source
Gross Margin	62–68%	58–64%	–4%	Bhatt & Shah (2020)
EBITDA Margin	12–18%	8–13%	–4 to –5%	Nair & Krishnan (2022)
Net Profit Margin	4–8%	2–5%	–2 to –3%	Bhatt & Shah (2020)
Compliance Cost (% Rev)	0.8–1.2%	1.8–2.5%	+1%	Jha & Gupta (2019)
Foregone ITC (% Rev)	N/A	4–7%	–4 to –7%	Patel & Singh (2021)

4.6 GST Compliance Burden

Under the CGST Act 2017, cloud kitchen operators are required to file GSTR-1 (outward supply details), GSTR-3B (monthly summary return), and GSTR-9 (annual return). Jha and Gupta (2019) found that this compliance architecture consumed 12–18 staff-hours per month for small businesses, with professional CA fees adding ₹3,000–₹8,000 to monthly fixed costs — representing 1.8–2.5% of revenue for micro operators. Pillai and Thomas (2021) found that while the composition scheme reduced filing frequency, it prevented ITC claims and blocked inter-state operations, making it unsuitable for cloud kitchens with growth ambitions.

5. Conclusion & Recommendations

5.1 Summary of Findings

This dissertation has examined the impact of GST on cloud kitchen businesses in India through a comprehensive review of secondary literature, government data, and industry reports. The evidence consistently supports the following findings:

- GST has provided structural benefits through tax simplification and elimination of cascading taxes on raw materials (Kumar, 2018; Ministry of Finance, 2017).
- The denial of ITC under the 5% restaurant GST slab represents the most significant financial burden, costing operators 4–7% of annual revenue (Patel & Singh, 2021).
- 18% GST on platform commissions and packaging materials imposes compounding cost pressures unique to the delivery-only model (Raghavan, 2022; Sinha & Pandey, 2023).
- Compliance costs, while standardized, remain disproportionately high for micro and small cloud kitchen operators (Jha & Gupta, 2019).
- Larger operators benefit disproportionately from GST through economies of compliance scale and the ability to pursue food manufacturer classification for ITC eligibility (Bhatt & Shah, 2020).

5.2 Policy Recommendations

Recommendation	Basis	Expected Outcome
Extend ITC to cloud kitchens under 5% slab	Patel & Singh (2021)	Reduce effective tax burden by 4–7%
Simplified quarterly filing for micro operators	Jha & Gupta (2019)	Reduce compliance costs by ~40%
Clarify restaurant vs. manufacturer GST classification	Desai & Nair (2021)	Reduce litigation and ambiguity
Reduce GST on eco-friendly packaging to 5%	Sinha & Pandey (2023)	Lower input costs; promote sustainability
Cap TCS deduction impact on small operators	Chandra (2022)	Improve cash flow for micro kitchens

5.3 Conclusion

The GST framework has brought undeniable structural simplicity to India's indirect tax system (Kumar, 2018). However, its application to the cloud kitchen sector reveals significant design gaps — most notably the ITC denial under the restaurant classification — that disproportionately burden small and medium operators (Patel & Singh, 2021; Reddy & Rao, 2021). As India's cloud kitchen market continues to grow (Iyer, 2023), targeted GST reforms addressing ITC eligibility, packaging tax rates, and compliance simplification are essential to support the sector's sustainable development and formalization.

References

- Agarwal, S. (2021). Ghost Kitchens: The New Normal in Urban Food Services. *Urban Economy & Society*, 4(2), 22–37.
- Bhatt, V., & Shah, D. (2020). Post-GST Profitability Trends in India's Organized Restaurant Sector. *Journal of Financial Analysis*, 8(2), 66–80.
- Bose, D., & Chatterjee, R. (2020). Impact of GST on Consumer Prices in the Organized Food Sector. *Consumer Affairs & Market Research*, 9(1), 14–28.
- Chandra, A. (2022). E-Commerce and GST: Taxation of Digital Food Platforms in India. *Digital Economy Law Review*, 3(1), 12–27.
- Desai, R., & Nair, K. (2021). Cloud Kitchen Business Models in India: Opportunities and Challenges. *Food Business Asia*, 5(1), 80–95.
- FSSAI. (2023). Guidelines for Cloud Kitchen Licensing and Operations. New Delhi: Food Safety and Standards Authority of India.
- GSTN. (2024). Quarterly Compliance Statistics Report Q3 FY 2023–24. New Delhi: Goods and Services Tax Network.
- Iyer, N. (2023). Cloud Kitchen Market in India: Size, Growth, and Future Outlook. NRAI Market Intelligence Report, New Delhi.
- Jha, S., & Gupta, A. (2019). SME Compliance Challenges under GST in India. *Indian Journal of Finance*, 13(6), 22–38.
- Kumar, R. (2018). GST Implementation in India: A Macro-Economic Analysis. *Journal of Taxation and Policy*, 12(3), 45–67.
- Mehrotra, A. (2022). Digital Entrepreneurship and Tax Compliance in India's Gig Economy. *Journal of Entrepreneurship & Innovation*, 11(2), 30–47.
- Ministry of Finance, Government of India. (2017). The Central Goods and Services Tax Act, 2017. New Delhi: Ministry of Finance.
- Mishra, P. (2019). The Evolution of India's Food Delivery Market and Regulatory Challenges. *Journal of Business & Retail Management Research*, 14(1), 88–101.
- Nair, B., & Krishnan, T. (2022). Food-Tech Startups in India: Financial Viability Post-GST. *Startup & Innovation Research Journal*, 6(3), 45–60.
- NRAI. (2023). India Food Services Report 2023. New Delhi: National Restaurant Association of India.
- Patel, D., & Singh, H. (2021). Input Tax Credit Denial and Restaurant Profitability under GST. *Tax Research Quarterly*, 7(2), 61–79.
- Pillai, S., & Thomas, A. (2021). Composition Scheme under GST: Benefits and Limitations for Small Food Businesses. *Taxation & Accounting Review*, 5(1), 40–55.
- Raghavan, M. (2022). Platform Economics and Profitability of Cloud Kitchens in India. *Technology & Society Journal*, 9(4), 33–52.
- Reddy, K., & Rao, P. (2021). Tax Burden Analysis of Delivery-Only Food Businesses in India. *Indian Tax Review*, 18(4), 55–72.
- Roy, S., & Banerjee, P. (2021). Consumer Behavior and Online Food Ordering Post-GST in Urban India. *Journal of Consumer Research India*, 9(3), 44–59.
- Saxena, R., & Gupta, M. (2019). GST and Supply Chain Efficiency in the Food Processing Industry. *Supply Chain Management Review India*, 7(3), 18–33.
- Sharma, P., & Mehta, V. (2020). GST and the Indian Hospitality Sector: A Performance Review. *Hospitality Management Review*, 8(2), 15–29.
- Sinha, M., & Pandey, R. (2023). Sustainability and GST: Environmental Packaging Tax Burden on Food Businesses. *Environment & Business Policy Journal*, 2(1), 8–22.
- Verma, A., & Tiwari, S. (2020). GST Rate Rationalization in the Food Sector: A Policy Perspective. *Economic & Political Weekly*, 55(12), 34–41.