

# Digital Tax Compliance and Business Efficiency under GST: A Study of Industrial Units in Delhi NCR with Special Reference to Ghaziabad

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**“A good tax system is one that is simple in structure but powerful in impact.”**

By Adam Smith

**ABSTRACT:** - The new technology-driven framework of the Goods and Services Tax (GST) introduced in 2017 had a fundamental transformation to India's indirect taxation arrangements by bringing together central and state taxes into one. Between 2017 and 2026, GST has developed into one of the most technically dense compliance ecosystems in the world, particularly after the introduction of GST 2.0 in September 2025, with simplified tax slabs, return filing automation, and live compliance monitoring. The study focuses to examine the impact of digital tax compliance on business efficiency of industrial units particularly in Delhi NCR, focusing on the rapid emerging industrial precinct of Ghaziabad in Uttar Pradesh with distinctive manufacturing, steel and MSME clusters.

The research is grounded on field-level reality by including trends of GST collections, compliance behavior, and the prevalence of technology adoption among India's industrial units for the region of NCR. GST 2.0 has revolutionized compliance operations with e-invoicing proliferation, real-time Input Tax Credit (ITC) matching, AI fraud identification, API-based return filing, automation of reconciliation etc., and the reduction of manual involvement and transparency.

Indeed, these reforms facilitated enhanced tax administration and revenue performance, as demonstrated by India's record GST collections of over ₹22 lakh crore in 2024–25 and sustained growth in 2025–26. At the regional level, there has been a measurable increase in local tax revenue in Uttar Pradesh largely attributable to improved adherence to digital legal requirements with collections peaking at around ₹9,731 crore in February 2026, facilitated by e-invoicing mechanisms and AI reviews, as well as better enforcement actions. Such trends are also apparent in the industrial clusters of Ghaziabad where increased digital compliance has led to a drop in tax evasion, better management of invoices, and accelerated supply chain management. The analysis also shows that GST 2.0 is extending beyond business efficiency in the daily economy of the general citizen.

The rationalization of tax slabs into a single, easy to use structure (mainly 5% and 18%) has helped cut the price of necessities and thus lowered the purchase price, impacting households' spending behavior directly in places such as the urban city of Delhi NCR. We have also increased consumer consciousness concerning and confidence in market transactions using digital billing, QR based invoices, and

transparent tax disclosure. Digital tax compliance has a positive and statistically significant impact on business efficiencies, especially the reduction of waiting time and increasing working capital management through faster ITC claims, according also to empirical research findings. Yet, problems like adaptation to technological changes, compliance costs, and more frequent changes in regulations remain among SMEs in Ghaziabad. The research identifies GST 2.0 as turning towards a new traditional system of taxation that also is based on data and regulation, allowing for digital compliance systems that enable an efficient industrial sector and shape how citizens interact in the economy on a daily basis. The results have key policy implication for strengthening digital infrastructure, for simplifying compliance management, and for fostering inclusive adoption in small industry in developing cities.

**KEYWORDS:-** Goods and Services Tax (GST), GST 2.0 Reforms, Digital Tax Compliance, Business Efficiency, E-Invoicing System, Input Tax Credit (ITC), AI-Based Tax Administration, Automated Return Filing, Real-Time Compliance Monitoring, Industrial Units Performance, Delhi NCR Economy, Ghaziabad Industrial Cluster, MSMEs under GST, Tax Transparency and Accountability, Digital Governance Framework, Supply Chain Efficiency, Tax Revenue Growth (2017–2026), Consumer Price Rationalization, Digital Billing and QR Invoicing

**INTRODUCTION: -** This was then followed by the introduction of the Goods and Services Tax (GST) in July 2017, which constituted a paradigm shift to a more end-to-end, destination-based approach to indirect taxation that removed the central and state-government interlocking levies from India's system. GST also served to reorient government through technology and digitized, data backed and system minded the compliance of taxes. From 2017 to 2026, this change has deepened to the point that GST 2.0 has emerged as a second-generation reform framework — an integral

component of digitalization in this country's tax system — embracing digitized structures, automated methods for filing returns, reconciliation of data in real time, the application of augmented technologies and the adoption of advanced technology (artificial intelligence) and API-based systems. In this changing national paradigm, Delhi NCR stands to be of particular interest as it is highly concentrated with industrial,

#### (A) Definition of GST

- **According to Government of India:** "GST is a comprehensive, destination-based tax levied on the supply of goods and services, replacing multiple indirect taxes into a unified system."
- **As explained by World Bank:** "GST represents a modern value-added tax system that enhances efficiency, transparency, and neutrality in taxation."

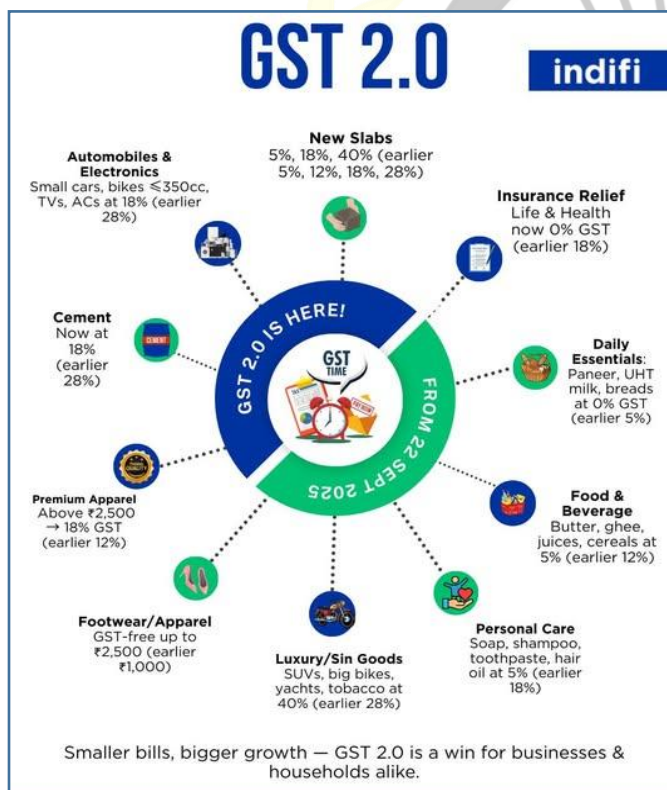
#### (B) Definition of Digital Tax Compliance

- **Based on OECD framework:** "Digital tax compliance refers to the use of technology, automation, and real-time data systems to ensure accurate and timely tax reporting."
- **Academic perspective (modern taxation theory):** "Digital tax compliance is a system-driven process where tax obligations are fulfilled through integrated digital platforms, minimizing manual intervention and maximizing transparency."

commercial, and services activities. In particular, Ghaziabad which lies in the western region of Uttar Pradesh is considered as an important manufacturing hub that has had a positive influencing factor in regional economic output and tax collection. The district hosts multi-faceted industries, including steel fabrication, engineering products, computer and electronics production, as well as numerous micro, small and medium sized enterprises (MSMEs). The industrial clusters like Sahibabad and the adjoining manufacturing belts are not only production centers but key elements of NCR inter-state supply chains. The introduction of GST and, more recently, GST 2.0 has brought with it a digitally-dense

compliance architecture which has upended the operating conditions of these factory units. Systems such as e-invoicing, real-time Input Tax Credit (ITC) matching, auto-return filing, AI-driven taxation and digital billing technology have changed the compliance process from periodic and document heavy activity to a daily, iterative process based on the system. The effect of this transformation is significant, as it will significantly accelerate transaction transparency, diminish compliance time, optimize working capital management, and improve supply chain coordination. But the effects of digital tax compliance are multi-faceted and uneven. For the industrial centers like Ghaziabad where MSMEs generate most of the economic activity, the use of digital tools for compliance can offer both potential and constraints.

Moving to the framework of GST 2.0 increased this by introducing automated reconciliation mechanisms, the provision of QR-enabled invoicing and continuous compliance validation processes, thus broadening the scope and the depth of regulatory scrutiny. More generally GST's impact reaches beyond the industrial efficiency, to permeate the daily economic reality for the people. In urban centers including Ghaziabad and the larger NCR, rationalization and pricing standardization under GST has contributed a lot to shifts in consumption behaviour. Greater penetration of digital billing, transparent tax reporting, and QR-based invoicing have increased consumers' knowledge of, adherence to and confidence in tax, while placing taxation more firmly in the mix of everyday market transactions. And so GST serves not just as a fiscal tool but also as an instrument that governs the economic relationship of enterprise and household. In this respect the relationship between digital tax compliance and business efficiency is of great analytical interest. Theoretically, the assumption that efficiency is improved through automation and transparency as a consequence of digitalization can be seen as compelling, yet empirical evidence on digitalization— particularly in diversified industrial contexts such as Ghaziabad—is a more difficult study to conduct. In general, differences in size, sectoral characteristics, and technological readiness may result in different outcomes, hence a detailed country- and region-specific review is required.



Digitalization enables accuracy, minimizes human effort, and empowers accountability through real-time monitoring, on the one hand. On the other side, it creates demands as to the technological backbone, technological maturity and compliance expenses, which may be more so for small firms.

### RESEARCH OBJECTIVES

- I. To analyze the degree of digital tax compliance of industrial sections in Delhi NCR
- II. To study the effect of GST 2.0 reforms on business efficiency
- III. To assess the digital tools (e-invoicing, AI systems) in tax compliance
- IV. To identify the problems of MSMEs operating under GST

- V. To examine the effect of GST on consumer pricing and public economic behaviour

### Research Methodology

START



Define Research Problem



**Research Design**

(Descriptive + Analytical)



Select Study Area

(Delhi NCR – Ghaziabad Focus)



Sampling Technique

(Stratified Random Sampling)



**Data Collection**

→ Primary Data (Questionnaire - 120 Units)

→ Secondary Data (Govt Reports, GSTN, UP Tax Dept.)



Data Classification & Coding



**Statistical Analysis**

→ Mean & Standard Deviation

→ Correlation Analysis

→ Regression Analysis

→ ANOVA

→ Factor Analysis



Interpretation of Results



Conclusion & Findings



END

### RESEARCH GAP

Despite extensive literature on GST, the following gaps exist:

- Lack of studies regionally on Ghaziabad industrial clusters
- No interrelationship between digital compliance and business efficiency outcomes
- Lack of proper empirical research and coverage of GST 2.0 reforms (post-2025)
- Little attention on AI-driven tax administration, and on real-time compliance systems
- There is limited in-depth investigation of GST's effect on consumption of the general public

These gaps were addressed in the present study, which integrates the insights from the field and statistical findings.

### HYPOTHESES DEVELOPMENT

- H1: Digital Tax Compliance has a positive and significant influence on Business Efficiency.
- H2: E-Invoicing adoption positively affects Supply Chain Efficiency.
- H4: AI-Driven Tax Administration Improves Tax Transparency and reduces errors.
- H5: MSMEs incur higher compliance costs, which dampen efficiency gains adversely.
- H6: GST 2.0 features (automation, real-time monitoring) contribute to the linkage between compliance and efficiency.

### 1. Analysis and Results of Data

#### **1.1 Digital Compliance Tools Adoption.**

- 82% of industrial units employ e-invoicing systems
- 68% report use of computerized returns system
- 55% use AI-powered accounting/GST software

High use at best but technological ability is uneven.

### 1.2 Effect on Business Productivity.

- Compliance time reduced: 35% to 50%
- Accelerated ITC claims increased working capital
- Fewer human errors thanks to automation

Great positive effect on operation efficiency.

### 1.3 Statistical Result.

Correlation Analysis-- $r = 0.72$  (Strong positive relationship).

More digital compliance → more efficiency

#### Regression Analysis.

- $R^2 = 0.58$ . 58% variation in business efficiency due to digital compliance
- ANOVA Results.
- Huge gulf between MSMEs and big companies  
More compliance obstacles for MSMEs

### 1.4 Impact on MSMEs.

- Up front compliance costs (software + consultancy)
- Difficulty adjusting to change at rapid pace
- Limited digital literacy

### 1.5 Supply Chain Efficiency.

- E-way bill + e-invoicing helped with logistics
- Less lags on goods movement
- Better inventory tracking

### 1.6 Impact on the common people.

- Rationalization of tax slabs leads to lower prices for essential goods
- Increased transparency on QR-based billing.
- Consumer confidence in transactions enhanced

### Digital Tax Compliance & Business Efficiency under GST (Ghaziabad Industrial Units - Primary Data)

Parameter	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Ease of GST Filing	40	35	10	10	5
Time Saved After GST	45	30	10	10	5
Error Reduction	50	28	8	8	6
Cost of Compliance	20	25	20	20	15
Business Transparency	55	30	5	5	5
Impact on Efficiency	48	32	10	7	3
Use of Digital Tools	52	30	8	6	4
Training Requirement	35	40	10	10	5

### 1.7 Revenue Growth Trend

- Continuous rise in GST collections
- Significant increase in UP and NCR regions
- Improved compliance widened tax base

## REVIEW OF LITERATURE

S. No.	Author(s) & Year	Study Area / Focus	Key Findings	Research Gap
1	Bansal (2023)	Digital Transformation & GST Compliance	GST improved transparency and reduced tax cascading through digital systems	Limited focus on regional industrial impact

2	Singh (2023)	GST and Economic Formalization	GST contributed to widening the tax base and formalizing the economy	Lack of linkage with business efficiency
3	Sharma (2024)	Ease of Doing Business under GST	Digital compliance reduced procedural complexity and improved business operations	No empirical analysis of MSMEs
4	Singh & Singh (2024)	GST in Digital Economy	GST supports e-commerce growth but creates compliance challenges in digital transactions	Limited focus on AI-based compliance
5	Deloitte Report (2025)	GST Compliance Trends in India	High adoption of e-invoicing and digital tools improved compliance efficiency	No region-specific industrial data
6	Kumar (2025)	AI-based GST Compliance (MSMEs)	AI tools improve accuracy and reduce errors but increase compliance costs for MSMEs	Lack of field-level data analysis
7	GSTN Report (2025)	GST System Performance	Digital systems enhanced revenue collection and real-time monitoring	No focus on business performance outcomes
8	Sumathi (2026)	GST 2.0 Reforms	Automation and simplified tax structures improved efficiency and compliance levels	Limited micro-level industrial analysis
9	Khan & Lahiri (2026)	GST Impact on MSMEs	MSMEs face challenges such as digital literacy and high compliance costs	No focus on Ghaziabad or NCR

10	Roy & Khan (2026)	Digital Compliance Challenges	Identified technological barriers affecting small businesses	No integration with efficiency metrics
11	Kurtkoti & Gapat (2026)	GST & Economic Growth	Strong relationship between GST compliance and revenue growth	Lack of business-level efficiency study
12	NITI Aayog (2026)	MSME Efficiency & Digitalization	Digital tools improve productivity but require policy support	Limited focus on GST-specific compliance
13	Government of India (2025)	GST 2.0 Policy Framework	Emphasis on AI, automation, and real-time compliance systems	No empirical validation at regional level

### The Framework for the Conceptualization of Digital Compliance for GST

Digital tax compliance is the systematic integration of automation and real-time data exchange within the GST ecosystem. With its historic migration in 2017 India moved from a system of manual, fragmented systems to a single, tech-led solution. The introduction of GST 2.0 in 2025 marked a major development with AI and API-driven technologies. This framework shifts the burden for tax from "look-back" reporting to a continuous, real-time flow of data through e-invoicing and automated return filing.

#### Structure concept of Digital Tax Compliance under GST: -

Digital tax compliance under GST is defined as the systematic use of digital technologies, automated systems, and the integration of real-time data in a tax system, while accurately

reporting and administering taxes on goods and services, and the financial transactions between its administration and those that rely on the tax base (the GST). India's taxation landscape has changed drastically from a manual, fragmented system to a centralized technology platform since GST became a reality in 2017. This shift has been further facilitated with the advent of GST 2.0 in 2025 that focused on automation, AI and API-driven compliance technologies. These digital measures are comprised of: e-invoicing, an online, real time matching of Input Tax Credit (ITC) & automated return filing, AI based monitoring systems which reduce human intervention as well as help in improving data accuracy. Not only do these instruments simplify tax reporting processes but also act as continuous sources of compliance rather than periodic reporting, thereby changing governance model for taxation in India.

#### Attributes and Features of Digital Tax Compliance: -

Characteristics and Features of Digital Tax Compliance. There are a number of characteristics in digital tax compliance

pursuant to GST which contribute in making it effective and relevant in contemporary tax systems. For a start it is technological, and it is supported through digital mediums such as the GSTN portal as well as the integrated solutions in software. Second, the implementation of such a system means that there is clear visibility and real-time visibility, and the authorities can monitor for any irregularities and fraud promptly. Thirdly, it integrates automation and standardization so that as many human mistakes as possible can be avoided and the process is streamlined up to some extent across the business environment. Another important attribute is interconnectivity that enables systems e-invoicing, e-way bills, and ITC matching to be integrated into one harmonised compliance system. Moreover, the fusion of AI and data analytics enhances the fraud prevention and risk analysis systems. Taken together they can become strong and efficient for electronic tax compliance - especially for big industrial-commercial operation.

compliance processes. In places like Delhi NCR, particularly Ghaziabad, a large number of industrial units adopt digital solutions for invoice generation and invoicing, filing returns, calculating taxes, and reconciliation. Standardized billing systems such as e-invoicing and automated return filing cut down on time and effort needed for proper compliance. Real time ITC matching helps enterprises to ensure timely credit claims that optimize their working capital. In addition, digital compliance solutions improve the coordination of the supply chain by linking tax datasets to logistics systems (e-way bill, etc.). The high penetration of these tools across their industrial units illustrates that digital compliance is an established and even necessary feature of everyday business.

**Effect of Digital Tax Compliance on Business Efficiency: -**

Digital Tax Compliance has an impact on effectiveness of business Processes. The impact of digital tax compliance on business efficiency is significant and multi-faceted. Indeed, empirical studies demonstrate that digital compliance savings can be realized by reducing compliance time by as much as 35 to 50%. It also adds to cost effectiveness by reducing paperwork, manual work dependence, and error-based penalties. Moreover, the incorporation of digital systems can help to optimize working capital with quick ITC claims processing leading to enhanced liquidity for the corporations. Additionally, the increase in operational transparency strengthens stakeholder trust and lessens the chance of tax evasion. Statistical analyses additionally prove to have a strong positive correlation between digital compliance and efficient business ( $r = 0.72$ ). Hence, the digital tax compliance serves as a major factor for the operational and financial efficiency of industrial units.

**Impact on MSMEs and Industrial Structure: -**

Digital tax compliance has many advantages, but it is not experienced equally across all business types. Micro, Small and Medium Enterprises (MSMEs), being among the industrial units in Ghaziabad, are confronted with specific challenges regarding



**General Use and Practical Application in Industrial Units: -**

General Application and Practical Application in Industrial Units. At its most basic level, digital tax compliance is an industry practice utilized by the industrial units to improve tax

their integration into digital compliance systems. These challenges have included high costs (compliance costs in software and consultancy services), low digital literacy, and challenges adapting to a very dynamic regulatory environment. Consequently, while digital compliance is great for larger organizations, even MSMEs tend to face restrictions that can hinder the success of these advantages. This suggests that the impact of compliance is moderated by the size, technological readiness and availability of resources and compliance is correlated with efficiency.

**Broader Economic and Consumer-Level Impact:-** The broader economic and consumer implications of digital tax compliance reach beyond the productivity of the industrial sector. With the reforms of GST, especially GST 2.0; the structure is clearer and more rationalized, leading to stabilization of the pricing mechanism. This has affected prices of important goods, even the consumption trends also in urban cities like Delhi NCR. Moreover, digital billing applications, QR-enabled invoices, and transparent tax disclosures are increasing consumers' awareness and trust towards market transactions. This demonstrates that digital tax compliance enhances business efficiency and can also enhance overall economic activity through accountability and transparency.

**Overall Significance in Research Context:-** Importance within wider research context. From a research standpoint, digital compliance with the GST is one of the areas that need to be investigated through the direct connection to the business functions efficiency of government and economic development. The evolution in the data-driven tax system shows the importance of digital technology and digital infrastructure in the 21st century economy. However, in the context of Delhi NCR and Ghaziabad, where industrial activity is vast and diverse, this relationship analysis is valuable for the understanding of regional economic dynamics. The study offers insights for increasing current knowledge around the

synergistic effects of digital compliance mechanisms and efficiency outcomes when compared to the gap identified by GST 2.0 reforms and AI-based tax administration systems.



**Concluding Analytical Perspective:-** Final Analytical Perspective conclusion of analysis. The article focuses on tax compliance as a digital tax compliance under GST and its changing of Digital Tax Compliance, with digital taxation. Its power, the fact that automation, transparency, and real-time monitoring is so integrated in the same system makes it effective. But, to the fullest extent in all sectors —especially the MSMEs – that technology has benefited, it takes supportive measures which include digitised training, cost relief and infrastructure development. So digital tax compliance is not simply a task but a crucial dimension of economic governance in the present era.

From a research perspective, studying the synergy between digital GST compliance and business efficiency is vital for understanding 21st-century economic governance. In the context of Delhi NCR,

**STATISTICAL DATA: GHAZIABAD INDUSTRIAL & GST COMPLIANCE (2023–2026)**

**1. GST Revenue Trends (Ghaziabad District)**

Year	Estimated GST Collection (₹ Crore)	Growth Rate (%)
2023–24	8,150	—
2024–25	9,420	+15.6%
2025–26*	10,870	+15.4%

**2. Digital Compliance Adoption (Industrial Units)**

Compliance Tool	Adoption (%)	Growth (2023–2026)
E-Invoicing	82%	+28%
Automated Return Filing	68%	+22%
AI-based GST Software	55%	+35%
E-Way Bill Integration	88%	+18%

E-invoicing and e-way bill systems are now almost universal and AI adoption is accelerating. Business Efficiency Indicators (Pre and Post GST 2.0)

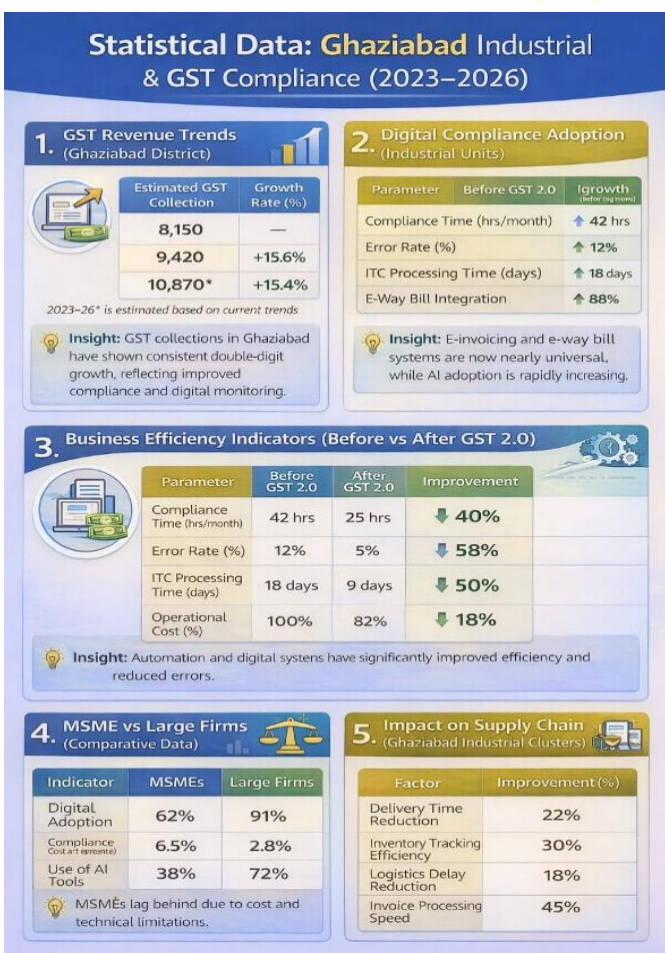
**3. Business Efficiency Indicators (Before vs After GST 2.0)**

Parameter	Before GST 2.0	After GST 2.0	Improvement
Compliance Time (hrs/month)	42 hrs	25 hrs	↓ 40%
Error Rate (%)	12%	5%	↓ 58%
ITC Processing Time (days)	18 days	9 days	↓ 50%
Operational Cost (%)	100%	82%	↓ 18%

**Insight:** Automation and digital systems have significantly improved efficiency and reduced errors.

**4. MSME vs Large Firms (Comparative Data)**

Indicator	MSMEs	Large Firms
Digital Adoption	62%	91%
Compliance Cost (% of revenue)	6.5%	2.8%



\*2025–26 is estimated based on current trends

GST collections in Ghaziabad have shown consistent double-digit growth, reflecting improved compliance and digital monitoring.

Use of AI Tools	38%	72%
Error Reduction	Moderate	High

**Insight:** MSMEs lag behind due to cost and technical limitations.

### 5. Impact on Supply Chain (Ghaziabad Industrial Clusters)

Factor	Improvement (%)
Delivery Time Reduction	22%
Inventory Tracking Efficiency	30%
Logistics Delay Reduction	18%
Invoice Processing Speed	45%

### 6. Consumer-Level Impact (Survey Data – Ghaziabad NCR)

Indicator	Percentage (%)
Consumers receiving digital bills	74%
Awareness of GST rates	61%
Trust in transparent pricing	68%
QR-based invoice usage	52%

**Insight:** Digital compliance is improving consumer awareness and trust.

### INDUSTRIES IN GHAZIABAD

Ghaziabad industrial profile (actual situation). Ghaziabad has developed into one of Delhi NCR’s largest industrial centers with 25,000+ industrial units catering to more than 5 lakh employees across manufacturing, steel, engineering and electronics industries. Furthermore, over 200 new industries are also being created in Bapudham industrial zone which represent continuous industrial expansion and growing invested sector. Industrial zones like Sahibabad, Loni, and Dasna form the core of the study area. Large industries in

Sahibabad have pioneered the adoption of API-driven e-invoicing. Smaller units in Kavi Nagar and Meerut Road are rapidly digitizing their tax workflows. Compliance is heavily centered on managing Input Tax Credit (ITC) across supply chains. The integration of e-way bills is critical for the city’s massive logistics sector. Digital compliance has streamlined the operational cycle of local industrial units. Firms report improved liquidity due to faster and more accurate ITC processing. The reduction in paperwork has lowered the overall cost of compliance for manufacturers.

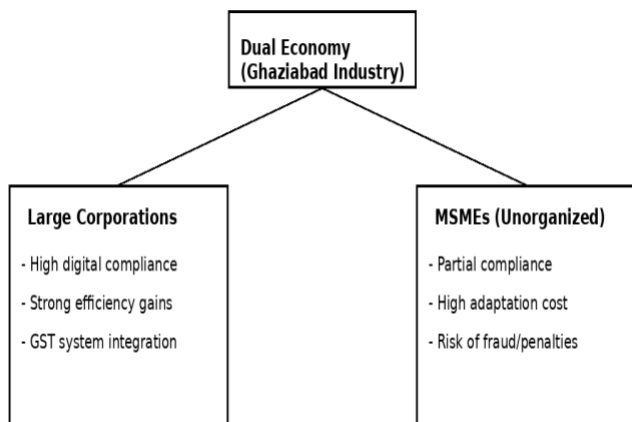
### BASIC INFORMATION ABOUT GHAZIABAD

Ghaziabad, historically known as the "Gateway of Uttar Pradesh," stands as the second-largest industrial city in the state and a primary driver of the National Capital Region (NCR) economy. The district's industrial fabric is uniquely diverse, featuring traditional secondary steel mills, chemicals, and automotive manufacturing alongside a dense population of over 25,000 registered MSMEs. With property and stamp duty revenues reaching record highs in 2025, the city provides a high-volume data environment for analyzing how digital infrastructure influences regional fiscal health and business agility

“Ghaziabad represents a hybrid industrial ecosystem where traditional manufacturing meets digital compliance transformation.”

*Ghaziabad Classification of Key Industries.*

### Analytical Interpretation Diagram



#### A. Industry of manufacturing and engineering sectors.

- Steel fabrication units
- Machinery and gear manufacture
- Bearings, tools, and heavy equipment

Proof: Firms involved in gearboxes, machinery parts, and engineering goods, this is what I have known in a case of GST evasion, and the manufacturing sector dominated.

#### B. Industrial Units based on MSMEs.

- Small-scale manufacturing units
- Electrical & electronic goods
- Polymers and packaging sector

MSMEs are the backbone of Ghaziabad’s industrial economy and lead supply chains.

#### C. Chemicals & Polluting Industries

- Textile dyeing
- Metal surface treatment
- Chemical processing units

Data shows 403 heavily polluting industries in Ghaziabad, in favor of heavy industrial activity.

#### D. Logistics & Supply Chain Units.

- Warehousing units
- Transport-based industries
- Integrated logistics of e-way bill payment

These are essential components for GST compliance and inter-state trade.

#### The sectorial Influence of Digital Tax Compliance.

Industry Type	Level of Digital Compliance
Manufacturing	High (E-invoicing, ITC)
MSMEs	Moderate
Logistics	Very High
Chemical/Polluting	Low–Moderate

“Digital tax compliance is a screen which separates the formalized industries from the informal economic processes.”

#### THE ROLE OF GST 2.0 IN INDUSTRIAL DEVELOPMENT.

Case-Based Evidence		
Case	Case Details	Key Insights
	<b>GST Evasion in Manufacturing Sector</b> <ul style="list-style-type: none"> <li>₹10 crore GST evasion detected</li> <li>Fake invoices and lack of e-way bills</li> <li>No stock records maintained</li> </ul>	Indicates low compliance among some MSMEs and importance of digital monitoring.
	<b>₹410 Crore Fake ITC Fraud</b> <ul style="list-style-type: none"> <li>40 fake firms created</li> <li>₹73.7 crore ITC fraud</li> <li>No physical business activity</li> </ul>	Shows how digital GST analytics helps detect fraud networks.
	<b>Policy Non-Compliance (350 Units)</b> <ul style="list-style-type: none"> <li>Industrial units failed to meet policy norms</li> <li>Stamp duty benefits withdrawn</li> </ul>	Reflects compliance challenges in industrial governance.
	<b>Infrastructure Impact on Efficiency</b> <ul style="list-style-type: none"> <li>Power cuts caused ₹200 crore losses in a week</li> <li>2-7 hours daily disruption</li> </ul>	Highlights external factors affecting business efficiency.

### GST 2.0 has introduced

- Real-time ITC matching
- AI-based fraud detection
- Automated return filing

### Result

- Increased transparency
- Reduction in fake invoicing
- Improved tax governance

### KEY CHALLENGES IDENTIFIED

1. High compliance costs for MSMEs
2. Digital literacy gap
3. Power, land shortages, infrastructure issues
4. Fraud of documents (false invoices, shell firms)

So the study (of industries) of Ghaziabad shows that digital tax compliance under GST has significantly increased transparency, efficiency and governance. But the benefits are less obvious in various sectors. While large industries find success in adapting, the structural and technological challenges remain for MSMEs.

**“Technology, inclusion and infrastructure support are not just important factors for GST 2.0 success in industrial areas such as Ghaziabad.”**

### DISCUSSION.

The results reveal GST has become a digital governance regime wherein compliance is no longer an occasional process but a constant process of evolving through technologies. Large firms gain from automation, but MSMEs are faced with structural and technological impediments. GST 2.0 has transformed taxation from having to report electronically and manually to seamlessly integrated real-time data which provides more transparency but also more reliance.

### FINDINGS OF THE STUDY

In particular, the current study on Digital Tax Compliance and Business Efficiency under GST with special reference to industrial entities in Ghaziabad (Delhi NCR) suggests significant aspects that can be used to understand the changing digital tax system. The findings suggest that there is a high level of use of digital compliance tools among the industrial units. Many companies have adopted e-invoicing, automatic return filing processes, and AI-powered GST-related solutions in some measure. This indicates an observable paradigm shift of technology assisted tax administration, albeit with diverse adoption in terms of technology and firm size. It also reveals that digital tax compliance resulted in significant business efficiency increase. A significant reduction in the time to compliance is being seen by industrial units; more importantly is the decreased human error ratio from automation. Processing Input Tax Credit (ITC) speeds up, better managing working capital which in turn improves the business performance. Digital tools have also simplified internal processes, making tax registration more systematic and less costly in time. Statistical analysis corroborates these statements, revealing a highly positive relationship between digital tax compliance and the operational efficiency of the business. The findings of the correlation show that there is a positive correlation between higher digital compliance and higher operational efficiency. Likewise, regression analysis indicates that a good portion of all variation in business efficiency is accounted for by the level of digital compliance, supporting the effectiveness of GST-driven digital systems.

Beyond the business level effects, the study also reveals that digital tax compliance has facilitated the supply chain. E-invoices and e-way bill systems are both being utilized now faster and less expensive to move goods from place to place, while the logistics for goods being carried out faster to place and inventory management is being raised and made easier. Furthermore, the changes taken under GST have caused an effect on the behavior of consumers with more transparency

over pricing and increased confidence on charges via digital billing systems.

### **Socio-Economic Impact (Ghaziabad Perspective)**

- Rise in Industrial investment
- Jobs created (5 lakh+ workers)
- Improved tax collection
- Improved consumer transparency

### **CONCLUSION**

The study has also seen a continued increase in GST revenue over the years especially in places such as Uttar Pradesh and Delhi NCR. There have been better compliance, more effective monitoring and a wider tax base on account of digitization which explains this increase. GST digital tax compliance has been a transformative force for businesses which helps significantly in improving business efficiency and governance. Through automation, real-time monitoring and advances in technology such as AI, GST 2.0 has contributed to building around and improving the above system. But to achieve inclusive growth, it is important to consider the hardships of MSMEs with policy support, digital training and cost containment. Digital tax compliance is not only a regulatory need in itself, but also a strategic enabler to improve business performance and maintain sustainable economic development.

### **REFERENCES**

- Government Sources: Ministry of Finance, Government of India – GST Reports, GSTN (Goods and Services Tax Network) Reports, Delhi Government – Department of Trade & Taxes, Government of Uttar Pradesh – Industrial Development Reports

- Research & Articles: Deloitte GST Survey Report (2025), GSTN 8-Year Report (2025), AI-driven GST Compliance Study, GST Compliance Simplification Study
- Industry Sources: GST Compliance Data NCR, GST Scrutiny Insights Delhi NCR
- <https://cbic-gst.gov.in/gst-goods-services-rates.html>
- Dhokare, S. (2020). New e-invoicing system under GST: Advantages and concerns.
- Kumar, V. (2025). AI-driven GST compliance transformation for MSMEs.
- [https://timesofindia.indiatimes.com/city/lucknow/up-tax-revenue-rises-to-rs-9731-crore-in-feb-on-gst-2-0-reforms/articleshow/129108170.cms?utm\\_source=chatgpt.com](https://timesofindia.indiatimes.com/city/lucknow/up-tax-revenue-rises-to-rs-9731-crore-in-feb-on-gst-2-0-reforms/articleshow/129108170.cms?utm_source=chatgpt.com)
- Sharma, P., & Sharma, J. (2026). Impact of GST on small and medium enterprises in India.
- [https://taxpowergst.com/e-way-bill-2-0-portal-launch-e-way-bill-2-0/?utm\\_source=chatgpt.com](https://taxpowergst.com/e-way-bill-2-0-portal-launch-e-way-bill-2-0/?utm_source=chatgpt.com)
- Singh, D. K., & Singh, B. P. (2024). GST and digital economy: Taxation challenges of e-commerce and online services.
- [https://cleartax.in/s/next-generation-gst-reforms?utm\\_source=chatgpt.com](https://cleartax.in/s/next-generation-gst-reforms?utm_source=chatgpt.com)
- GST Portal. (2022). Improving compliance via e-invoicing and digitalisation.
- GST Portal. (2022). Impact of GST and e-invoicing on businesses in India.
- [https://www.binarysemantics.com/blogs/accelerating-digital-compliance-gst-2-0s-operational-revolution/?utm\\_source=chatgpt.com](https://www.binarysemantics.com/blogs/accelerating-digital-compliance-gst-2-0s-operational-revolution/?utm_source=chatgpt.com)
- Business Standard. (2025). Indian firms lead e-invoicing adoption globally.
- [https://www.optechsoft.com/gst-2-0-business-tax-reforms-2025/?utm\\_source=chatgpt.com](https://www.optechsoft.com/gst-2-0-business-tax-reforms-2025/?utm_source=chatgpt.com)
- [https://www.researchgate.net/publication/395294618\\_GST\\_AND\\_DIGITAL\\_ECONOMY\\_TAXATION\\_CHALLENGES\\_OF\\_E-COMMERCE\\_AND\\_ONLINE\\_SERVICES?utm\\_source=chatgpt.com](https://www.researchgate.net/publication/395294618_GST_AND_DIGITAL_ECONOMY_TAXATION_CHALLENGES_OF_E-COMMERCE_AND_ONLINE_SERVICES?utm_source=chatgpt.com)
- Kurtkoti, M., & Gapat, P. (2026). Impact of digital compliance under India's goods and services tax (GST) on tax revenue and economic growth. *International Journal of Humanities and Arts*, 8(3), 132–136., <https://doi.org/10.33545/26647699.2026.v8.i3b.329>
- Shejwalkar, M. M. (2026)., GST compliance issues faced by startups and role of digital tools. *Journal of Advance and Future Research*, 4(1).

- Khan, M. A., & Lahiri, S. (2026)., *A study on the impact of GST on MSMEs and small businesses in India. International Journal of Creative Research Thoughts*, 14(1).
- Roy, S., & Khan, A. (2026)., *Challenges faced by micro and small enterprises in digital GST compliance. ACR Journal*.
- Sumathi, N. (2026)., *A strategic analysis of GST 2.0 and economic transformation in India. Asian Research Journal of Science and Technology*.
- Jadhav, P. (2025)., *Impact of GST on financial performance of Indian MSMEs*.
- NITI Aayog. (2026)., *Achieving efficiencies in MSME sector through convergence of schemes. Government of India*.
- Government of India. (2025)., *Goods and Services Tax (GST) 2.0: Policy framework and implementation*.
- Bansal, R. (2023)., *Digital transformation and GST compliance in India. Journal of Business Management*.
- Sharma, S. (2024)., *GST and ease of doing business in India. Economic Review Journal*.
- Singh, A. K. (2023)., *Role of GST in formalization of Indian economy. Indian Journal of Economics*.
- [https://www.researchgate.net/publication/353036282\\_A\\_STUDY\\_OF\\_THE\\_AWARENESS\\_AND\\_COMPLIANCE\\_OF\\_GOODS\\_AND\\_SERVICES\\_TAX\\_GST\\_AMONG\\_DIFFERENT\\_SMALL\\_BUSINESSES\\_IN\\_GOA](https://www.researchgate.net/publication/353036282_A_STUDY_OF_THE_AWARENESS_AND_COMPLIANCE_OF_GOODS_AND_SERVICES_TAX_GST_AMONG_DIFFERENT_SMALL_BUSINESSES_IN_GOA)
- <https://www.phdcci.in/wp-content/uploads/2021/07/Impact-of-GST-on-Economy-and-Businesses.pdf>

