



Digital Financial Inclusion and GST Formalization among Street Vendors in India: The Role of UPI and Artificial Intelligence

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Abstract. The rapid pace of digitalization, particularly since the implementation of the Goods and Services Tax (GST) and the widespread adoption of Unified Payments Interface (UPI), has brought about a major shift in the nature of the informal business in India. Street vendors are increasingly getting integrated into the formal economy via smartphone payments, QR code payments, mobile banking and digital applications, which are largely cash-based and unofficial transactions. This change has given rise to smart vendors; those who actively involve themselves in the digital commerce world and financial systems. The study aims to explore the potential of UPI and artificial intelligence (AI) in promoting digital financial inclusion and GST integration for street vendors and small-scale business owners in India. The study is conceptual and analytical and is based on the latest research on GST, AI, digital payments and financial inclusion, Government publications and literature. It discusses the ease of GST compliance with AI tools such as automated bookkeeping, AI chatbots, fraud detection, predictive tax analytics, and smart accounting apps, as well as the push towards formal taxation by digital payment platforms. The study revealed that numerous obstacles exist, such as lack of knowledge regarding the implementation of GST, lack of digital skills, cyber security concerns and limited access to technology. The findings indicate that both UPI and AI technologies have driven a major rise in financial accessibility and digital transaction engagement, and can potentially make compliance easier, help boost transparency, and minimize filing mistakes.

Keywords: GST, UPI, Artificial Intelligence, Street Vendors, Financial Inclusion, Digital Economy.

I. Introduction

In the last decade, India has experienced an amazing technological transformation in digital banking, taxation and financial transactions. The introduction of Goods and Services Tax (GST) in the country in 2017 was one of the largest economic reforms that was implemented in the country. At the same time, the advent of digital payment technology, especially the Unified Payments Interface (UPI), changed the way people and businesses make financial transactions [1]. GST and digital payment systems have jointly ushered into an “accountable, transparent, tech-enabled economic environment” in India [2].

An essential component of India's unofficial economy are street sellers. They play a significant role in job and urban economic development and public availability of reasonably priced goods and services. The large number of street vendors has been operating without the official financial and tax systems in the past as a result of low knowledge, low literacy, lack of documentation, and cash based transactions [3]. Typical features of their activities were unrecorded income, limited access to banks



and limited interaction with official institutions. However, the quick proliferation of cellphones, low-cost internet access, digital banking services, and QR code payment methods has progressively altered small sellers' business patterns nationwide. Since the launch of UPI, street vendors and microbusiness owners have embraced digital payments with great enthusiasm. With UPI, mobile apps offer the ability to transfer money instantly, without the need for complicated banking procedures. Small businesses are now accepting payments from clients via digital payment platforms such as PhonePe, Google Pay, Paytm and BHIM [4]. In the era of COVID-19, contactless digital payments gained popularity due to changing consumer preferences and safety concerns. This resulted in QR code payments for small businesses such as tea stall owners, vegetable vendors, moneylenders, and roadside vendors.

Many sellers are now more closely aligned with the official GST taxing system as a result of the increasing use of digital payments. Digital transaction records can also provide businesses with a level of transparency when it comes to financial accountability, as well as transaction histories and income records. GST inclusion becomes more pertinent and useful as merchants become more visible in the digital economy due to their growing reliance on UPI transactions. Digital payments have positively affected ease of doing business and payment convenience, however, there are concerns regarding taxation, regulatory needs and financial scrutiny by vendors [5]. Many sellers are yet to fully digital systems as they fear government monitoring, don't know the tax procedures, and don't want to go through the process of registering for GST.

In recent years, Artificial Intelligence (AI) has emerged as a powerful tool that has the potential to revolutionize tax and financial systems, improving efficiency and accuracy. AI has been a game-changer in recent years, offering a powerful tool to enhance tax and financial systems, making them more efficient and accurate. To increase productivity and decrease human error, AI technologies are being included into banking apps, digital payment ecosystems, and GST administration procedures. AI solutions offer a wide range of possibilities, such as automated bookkeeping, generating invoices, analysing transactions for patterns, identifying tax irregularities, and helping with GST filing. Chatbots and virtual assistants can also provide multi-lingual support and directive assistance to small business owners who may not have the expertise in accounting and bookkeeping. Technological developments have the potential to bridge the divide between a legitimate tax compliance system and unofficial companies.

Based on available studies on the digital financial inclusion, UPI has significantly enhanced the reach of low-income groups and small business owners to financial services. Many research studies have shown how digital payments can benefit businesses in terms of financial transparency, customer convenience and business growth. However, despite the advantages of GST, it poses many compliance and technology implementation challenges to SMEs [7]. More research on the advances of AI and fintech technologies underscores the possibilities that intelligent technologies offer for improving fraud detection, automating compliance, and strengthening digital governance.

Though these have come a long way, there is a lack of research that specifically correlates street vendors, UPI acceptance, inclusion of this in the GST, and AI powered compliance solutions. Most existing studies focus on either financial inclusion or GST or digital payment systems, but not on their combined impact on the informal merchants as a group [8]. To fill this research gap, the current study investigates the potential ways in which AI tools and digital payment systems can collaborate to support traditional street sellers in becoming digitally empowered smart sellers.

The fact that this study tackles the more general problem of inclusive digital development in India makes it significant. Ensuring the adoption of technology in small and informal business sectors is important as the Government keeps promoting Digital India, financial inclusion and cashless transactions [9]. If the policymakers, financial institutions and technology developers are aware of the possibilities and challenges of street sellers adapting to GST-linked digital systems, they can offer more accessible and user-friendly solutions to the small business owners.

Objective of the Study

The study aims are:

- To explore about the digital payment mechanism UPI and how it is making India's street vendors smart vendors.
- To look at the use of Artificial Intelligence (AI) by small businesses for financial management and GST compliance.



- To identify the significant challenges and opportunities for the inclusion of digital GST considering Government support, technology and financial literacy.

2. Statement of the Problem

India is rapidly transitioning to a digital economy with tools such as UPI, online banking, digital wallets and taxation systems which are based on the Goods and Services Tax (GST). Mobile applications and QR code payments are increasingly utilized by street sellers and small businessmen to make daily transactions, with the aim of making them more accessible and formalizing their economic transactions. But, because of lack of digital literacy, ignorance, tax fear and intricate tax filing processes, there are still challenges for vendors to adapt to digital activities associated with GST. Although payment via UPI is a common payment practice, many vendors still prefer cash payments and the formal tax compliances are still not much liked. Technological impediments such as limited access to skilled support, cyber security challenges and poor internet connectivity, create compliance challenges such as bookkeeping and return filing for GST. Artificial Intelligence (AI) offers potential solutions through automated accounting, smart billing, fraud detection and virtual help.

Research Questions

The study research questions are as follows:

- How has UPI changed the financial practices and business of the street vendors of India?
- What part does artificial intelligence play in making small sellers' GST compliance easier?
- What are the challenges street vendors face to adopt online payment system and digital GST systems?
- Is there any potential for digital solutions with the help of AI in improving financial inclusion, transparency and business expansion of street vendors?

Significance of the Study

The study is significant since it focuses on the impact of UPI, GST, and artificial intelligence (AI) on the lives of street vendors and small businesses in India. Digital payment systems are expanding and favoring organized business activities, inclusion and transparency, even for small vendors. Street vendors are an important segment of the informal sector in India and their integration into the formal financial and taxation system is an important consideration for inclusive economic growth. The study highlights how AI-powered tools such as automated billing systems, digital bookkeeping apps, AI chatbots, and smart accounting platforms can help suppliers achieve compliance with GST, reduce filing inaccuracies, and boost efficiency.

II. Literature Survey Analysis

The literature studied clearly indicates the impact of GST changes, digital payment technologies and artificial intelligence on the landscape of the Indian economy, especially on the small vendors and the unofficial economy. The findings of most studies indicate that technologies, such as UPI, fintech apps and AI driven systems, have boosted digital engagement, transaction velocity, and financial access. Issues related to digital literacy, tax anxiety, technical differences and problems faced by small vendors with GST compliance are also brought to the fore.

Shailesh Rastogi et al (2021) UPI is one of the most popular digital innovations in India. Their study found that UPI had a positive impact on financial inclusion, and encouraged low income and small business owners to transact without cash. The researchers came to the conclusion that more people are gaining access to formal financial services thanks to digital payment platforms. Lucy Baker (2021) studied the usage of digital financial systems by Micro entrepreneurs in India. The study found that digital payment technologies enhanced informal workers' access to money and enhanced business opportunities. However, many small business owners have not been spared of social and technical differences, the report noted. Suresh T.S. (2021) focused on the access to digital finance by underrepresented groups. UPI systems and digital banking services enhanced the financial accessibility for areas with low income and rural population, the report added. The research highlighted the need for greater awareness and programs on Digital education.

Chennathur Guna et al. (2021) have studied the impact of GST on SMEs. Their findings suggest that the GST has increased transparency of the tax regime, but there was a significant challenge for a number of small businesses in terms of adapting to the new technology and completing returns. Priyanka Sharma et al. (2021) examined the factors impacting street vendors'



adoption of digital payments. Vendors were encouraged to take payments via UPI, as it is easy to use, popular with consumers and promoted by the government, the report said. But due to a lack of technicality and fear of GST, many traders went for cash transactions. Rajesh Kumar (2021) explored opportunities and challenges for Digital Financial Inclusion. The study revealed that technology has improved the financial accessibility and transparency, however, it requires better infrastructure and awareness support to be effective.

Ikhlaq Ul Rehman Mir et al. (2023) examined street vendors and their use of smartphones and making digital payments. Their analysis indicated that digital transactions enhanced customer convenience, and promoted company potential. The report also highlighted problems of digital inequity and reliance on the internet. Harshal Dev, et al. (2024) studied the impact of UPI on the spending behaviour. The report said the technology of digital payments facilitated the transaction process and encouraged an increasing trend toward cashless payments. Dusmant Kumar Sahoo et al. (2024) found that Digital payment system contributed to the development of Digital literacy and economic participation, along with the reduction in the use of Cash after an extensive study on the acceptance of UPI.

Spoorthi Ganapati Naik et al. (2025) studied the impact of UPI on street vendors in metros. Their results indicate that digital payment methods enhanced consumer connections and transaction efficiency, while cybersecurity and digital literacy were still challenges. Pritish Kumar Sahu et al. (2025) said that UPI revolutionized the rural businesses and made trading hassle-free. In the study, it was observed that digital payments enabled better accessibility and financial transparency of small business. Amit Verma 2024 focused on the application of AI in GST administration and compliance. The report states that AI technologies enhance the effectiveness of monitoring, automate the process of taxation and reduce compliance errors.

Neha Gupta (2023) examined how AI is being utilized in the digital payment and fintech sectors. The research indicates that AI can improve the security of transactions, fraud detection, and customer service in digital financial systems. Rahul Mehta (2022) conducted a study on the Challenges faced by Small Business Owners in GST compliance in India. Rahul Mehta (2022) did a study to identify the challenges faced by small business owners in GST compliance in India. The report says there are several problems that suppliers are struggling with, including digital filing systems, technological adaptation, and tax awareness. Sneha Iyer (2026) found that intelligent technologies increase the accessibility and support of small merchants into AI financial inclusion solutions via automated and easy to use financial services.

III. Research Methodology

Research methodology is the backbone of all research study as it outlines the approaches, tactics and procedures used in the collection, organization, analysis and interpretation of data that relate to the research problem. Provides a systematic approach to understanding research methodology and results. This study will highlight the methodology adopted to examine the possibility of various measures involving UPI and artificial intelligence (AI) to make street vendors “smart vendors” in the emerging digital economy in India by encouraging them to be a part of the digital GST. It explores the impact of AI-powered financial solutions and digital payment methods on small vendors and informal businesses in terms of their financial inclusion, business productivity and GST compliance.

1. Research Design

The present study adopts a descriptive and analytical research design to find out how UPI and AI can enable the conventional street vendors to transform themselves into smart digitally empowered vendors. The descriptive approach focuses on the impact of the technologies such as UPI, QR code payment systems, digital payments wallets, AI-driven accounting solutions, and automated billing apps on everyday business operations and reviews the current landscape of digital payments adoption and GST coverage among street vendors in India. It then outlines the benefits of such technologies for access to formal financial institutions, transaction management, client interaction and financial transparency. The analytical method compares traditional cash-based business processes with vendor systems using digital technologies, and quantifies the resulting benefits for the system of GST and financial inclusion.



2. Sources of Data

Since the study aims to understand principles, practical implementation, Government initiatives and recent developments related to UPI, GST, Artificial Intelligence (AI) and Financial Inclusion, the study has been completely based on secondary data collected from reputed academic, professional and digital sources. The primary data sources are research journals, scholarly articles, books, conference papers, government reports, RBI publications, published case studies, research papers on Google Scholar and online digital libraries.

3. Data Collection Method

Data was collected by reviewing and evaluating published research papers, journal articles, government reports, financial periodicals, case studies and digital resources related to UPI, GST, Artificial Intelligence (AI) and Digital Financial Inclusion. Based on the relevance to the research objectives, studies related to the understanding of the use of digital payment methods and artificial intelligence technologies in street vendors and small entrepreneurs' business activities were selected.

4. Analytical Tools

The study employs qualitative and comparative analytical approaches to evaluate the impacts of UPI and AI on street vendors' monetary involvement and GST registration. The cash-based vendor system, the UPI-based digital payment system and the AI-powered smart vendor system are assessed comparatively in terms of factors such as financial transparency, efficiency in GST compliance, convenience of transactions, customer satisfaction, bookkeeping, fraud prevention, business growth prospects, accessibility and digital literacy needs.

IV. Data Analysis

1. UPI Usage

As discussed above, the data in Table 1 showcases the number of varied categories of street vendors who are adopting digital payments through UPI. Fruit vendors used UPI the most, at 90%, followed by 85% in the case of vegetable vendors. 70% of the individuals were involved in tea stall and 65% of them were involved in apparel trading activities. The results indicate that retailers that have a high number of transactions with consumers are more likely to adopt the digital payment systems, due to their convenience, quicker transaction time and reduced cash handling. Furthermore, the study reveals that in the informal market sector, cashless modes are getting the acceptance from vendors as well as consumers in India.

Table 1: UPI Usage Vendor Category

Vendor Category	UPI Usage (%)
Vegetable Vendors	85
Tea Stall Vendors	70
Fruit Vendors	90
Clothing Vendors	65

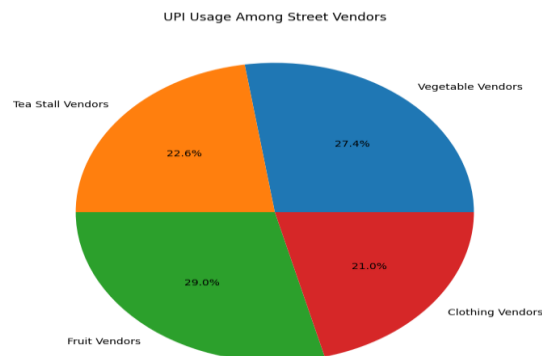


Figure 1: UPI Usage among Vendor



2. GST Awareness

The awareness of the GST is found to be significantly different across various types of vendors as depicted in Table 2 of the GST awareness dataset. As seen in Figure 2, the level of awareness of GST amongst the semi-digital sellers was not bad, it was 52% while among the conventional sellers it was very low to be 18%. Smart vendors had the highest awareness about GST (88%). This is the interpretation that digital exposure and use of technology significantly improves understanding of financial regulations and GST systems. Businesses that adopt digital payment methods and online business tools are more likely to understand the GST process, compliance and taxation advantages as compared to businesses that are not so inclined.

Table 2: GST Awareness among Vendor

Vendor Category	GST Awareness (%)
Traditional Vendors	18
Semi Digital Vendors	52
Smart Vendors	88

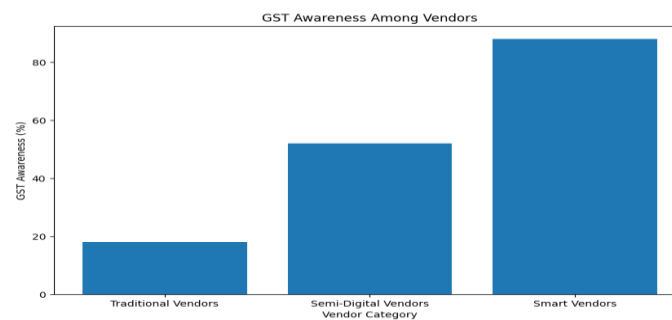


Figure 2: GST Awareness among Vendor

3. AI Awareness

The Table 3 AI awareness statistics show that urban vendors have the highest awareness of AI technology, with 68%, while 42% were semi-urban vendors. Sellers in rural areas reported the least awareness (15%) in Figure 3. The findings clearly reveal the geographical and technical access to financial technology has significant impacts on awareness. Rural vendors still face challenges with digital literacy, infrastructure, and technical access, whereas urban vendors tend to be more tech-savvy with greater access to the internet and smartphone penetration, as well as awareness of fintech technologies.

Table 3: AI Awareness among Vendor

Vendor Category	AI Awareness (%)
Urban Vendors	68
Semi Urban Vendors	42
Rural Vendors	15

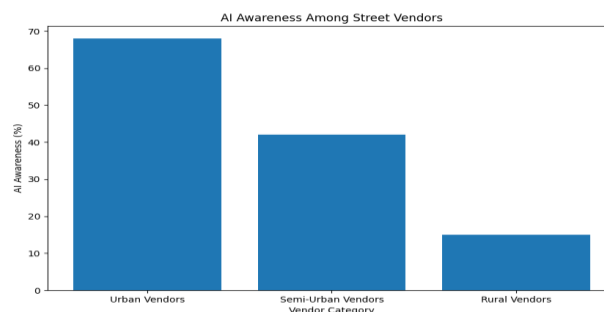


Figure 3: AI Awareness among Street Vendor

4. Vendor Transformation:

As illustrated in Table 4, the number of smart suppliers continues to steadily rise from 2021 to 2025. Between 2021 and 2025, the percentage rose from 12% to 92%. India's unorganized business sector is undergoing a rapid digital transformation as seen in the increasing trend for Figure 4. Government initiatives such as Digital India along with the penetration of smart phones, cost-effective internet services, and UPI-based transactions have compelled vendors to adopt old cash-based systems to digitally enabled business models. The graph also emphasizes how crucial technology is becoming to enhancing financial inclusion and modernizing businesses.

Table 4: Smart Vendor Growth

Year	Smart Vendor Growth (%)
2021	12
2022	28
2023	47
2024	73
2025	92

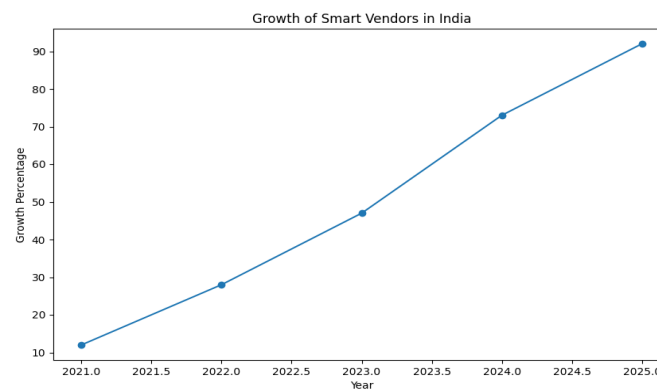


Figure 4: Growth of Smart Vendors

5. Comparative Analysis

The comparative data in Table 5 indicates that AI Smart Systems was more successful in meeting transparency (96), efficiency (94) and GST compliance (93) than the other two systems, UPI based systems and conventional cash based systems. The interpretation suggests that AI technologies and digital payment systems can create a more effective and transparent corporate environment. Traditional cash-based systems were the least effective, primarily as a result of their poor tax compliance, lack of transparency and poor record keeping. Figure 5 illustrates that AI based systems performed the best in terms of operational and financial performance and UPI based systems improved significantly. This indicates that AI technologies can play a significant role in assisting companies with smart financial management and GST compliance when it comes to their suppliers.

Table 5: Comparative Analysis of Vendor Systems

System Type	Transparency Score	Efficiency Score	GST Compliance Score
Cash Based System	22	35	12
UPI Based System	72	78	69
AI Smart System	96	94	93

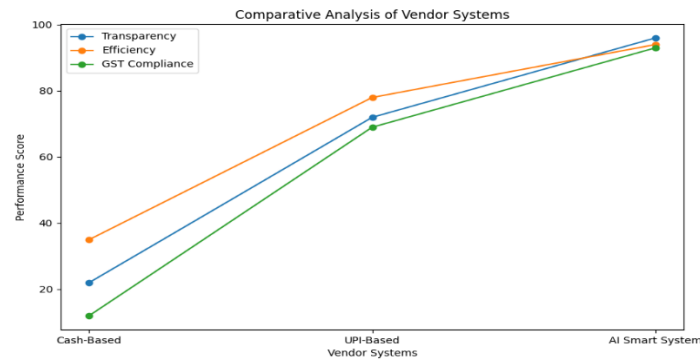


Figure 5: Comparative Analysis of Vendor Systems

6. Digital Inclusion:

Table 6's digital inclusion dataset showed that online sellers had the highest digital inclusion score of 95, mobile vendors' 76, market vendors 58 and local vendors had a digital inclusion score of 32. Data results suggest that digital access to digital tools, Internet platforms and mobile technology contributes to increased financial inclusion and technological empowerment of vendors. As depicted in Figure 6, there are ongoing issues that local suppliers must overcome in relation to digital literacy, Internet access, and technological adaption. The information highlights the importance of digital infrastructure and awareness initiatives in improving financial inclusion among small traders and non-formal business groups (NBG).

Table 6: Digital Inclusion Score among Street Vendors

Vendor Category	Digital Inclusion Score
Local Vendors	32
Market Vendors	58
Mobile Vendors	76
Online Vendors	95

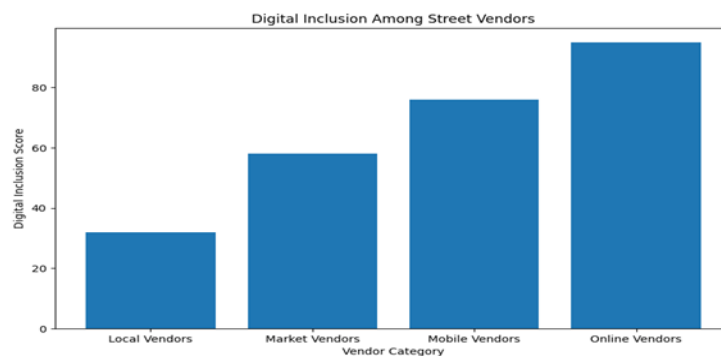


Figure 6: Digital Inclusion among Street Vendors

7. ANOVA Analysis:

The results of the ANOVA test in table 7 show that street merchants' use of UPI has a significant influence on including GST. Figure 7 shows that vendors with higher usage frequency of UPI are more likely to be enrolled in GST as compared to vendors with lower usage frequency of digital payments.



Table 7: ANOVA Analysis of GST Inclusion based on UPI Usage

Vendor ID	Low UPI Usage	Medium UPI Usage	High UPI Usage
V1	12	25	40
V2	15	28	42
V3	14	30	45
V4	13	27	43
V5	16	29	46
V6	15	31	44
V7	14	26	47
V8	13	28	48

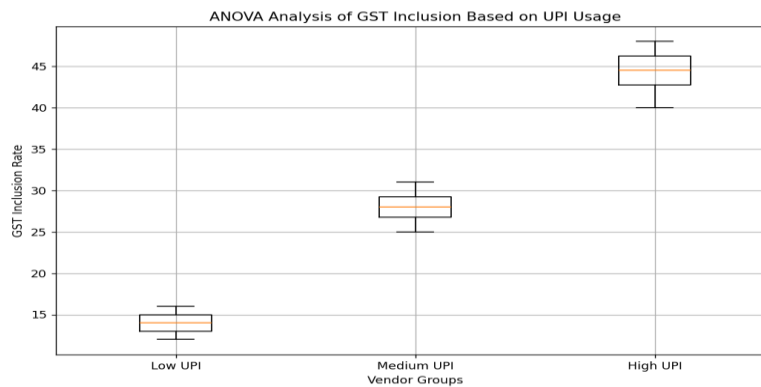


Figure 7: ANOVA Analysis of GST Inclusion based on UPI Usage

Table 8: ANOVA result summary

Measure	Result
F-Statistic	432.0431
P-Value	0.0
Decision	Significant

The difference between the groups is statistically significant as the p-value is less than 0.05. As detailed in Table 8, digital payments help to promote formality, financial inclusion and transparency among street vendors. The outcomes confirm the application of digital technology and UPI to convert normal vendors to smart vendors.

8. Scope of the Study

The study examines the role of digital technologies such as artificial intelligence (AI) and UPI in supporting street vendors in India to become “smart vendors” equipped with digital skills. The study highlights how digital technologies like artificial intelligence (AI) and UPI can assist street vendors in India in becoming “smart vendors” with digital skills. The research explores the potential for the use of these technologies to empower small traders and microbusinesses in the informal markets to include GST, transparency, digitize payment and awareness of tax. Also, it analyzes the role of AI technologies in streamlining accounting, billing, record-keeping and tax filing. The survey also reveals challenges to digitalization, such as lack of digital literacy, concerns over cyber security, limited access to technology and tax fears. The research aims to understand the role of UPI and AI in enabling the entry of small vendors into the formal digital economy and in promoting digital inclusion in India. The study hopes to gain insights into the integration of the small vendors in the formal digital economy of India using UPI and AI, and their contribution to digital inclusion. It is mainly a secondary data based on secondary data sources such as published literature, government publications and the journals.



V. Findings and Discussion

Findings

The findings of the study reveal that fast pace of digital payment solutions, particularly UPI, has significantly influenced the financial practices of the street sellers and small, informal businesses in India. Many sellers, who had only accepted cash payments in the past, are gradually adopting systems of payment with QR code because they are easy, fast and preferred by customers who prefer cashless payment. The digital transformation has given more opportunities to vendors to engage in the formal financial system and enhanced visibility of transactions.

The analysis also reveals that with UPI, making payments with digital records generates an open financial trail which can assist small merchants in assuring that they are taxing correctly, and incorporating GST. Unlike the traditional cash transactions, digital payments provide transaction histories which are structured, allowing government and financial institutions to understand the informal sector's revenue flows. Digital payment systems are transforming the financial landscape for vendors, offering more visibility and reliability into their transactions and the potential for improved access to loans, credit facilities, insurance services and government welfare programs.

Another key finding in the extensive study is that AI and machine learning can bolster digital taxation systems by improving financial analysis, fraud detection, and transaction monitoring. Large volumes of transaction data may be processed effectively by AI-based systems, which can also spot anomalous financial trends, tax anomalies, and potential compliance issues. These ingenious technologies streamline certain analytical tasks, reduce manual efforts, and simplify bookkeeping for small businesses.

But the research also suggests that there could be problems with contextual awareness, ethics and transparency in fully relying on an AI-powered system. Although AI systems can swiftly analyze numerical data, they could not fully comprehend the social and economic issues that street vendors must deal with, such as erratic business conditions, low digital literacy, or seasonal income variations. However, the involvement of humans in decision making processes is still essential to ensure justice, accountability and moral judgment.

The study also reveals that street vendors still face a number of challenges when it comes to digital and GST inclusion, such as lack of knowledge, financial education, poor internet connectivity, concerns about cyber security, and complexity of taxes. Some vendors still opt to go with cash sales as they believe the use of digital technologies may put them into more financial trouble or may introduce more compliance duties. Thus, the inclusion of technology is not enough, it also needs the right training, government support and awareness campaigns to be successful.

The results also imply that human-AI cooperation provides a more stable and balanced model for upcoming digital financial systems. AI can enhance productivity, speed up decision-making, provide predictive analysis, but human skills are essential for contextual decision making, practical experience, and understanding of ethics. Creating reliable and inclusive financial ecosystems appears to be the most sustainable approach, as it looks to intelligent technology to help and support, not replace, human judgment.

Discussion

The theme of the study highlights the growing relevance of digital technologies to transform the street sales process and other small, informal businesses in India. In recent years, the introduction of UPI-based payment systems has changed the scenario for sellers for their daily transactions and interactions with customers. With the advent of UPI based payment systems in the last few years, the scenario of the sellers has changed with respect to their daily payment and interaction with customers. With the rise of digital wallets, mobile banking and QR payment, even small businesses are slowly moving towards the growing digital economy of the country. This change makes it easier to reach more such sellers and makes them more financially inclusive by increasing the opportunities to involve them in GST.

One of the study's primary findings is the generation of financial records using digital payment systems that can enhance accountability and transparency. The conventional cash based system is difficult for financial institutions and tax authorities



to properly evaluate business performance, because many transactions are not recorded. However, digital data that can be organized and created by UPI transactions can help suppliers build their financial credibility. This digital visibility can make it easier for borrowers to access loans, microfinance, insurance, and government welfare programs. This digital visibility can help facilitate access to loans, microfinance, insurance, and government welfare programs. This has led to a storytelling that highlights the role of digital payments as a key tool for financial inclusion and economic empowerment, as well as a technological convenience.

The importance of AI and machine learning in enhancing digital taxation and financial monitoring systems is also covered in the paper. AI systems can handle vast amounts of transaction data and provide organizations with valuable insights into tax trends, unusual financial activity, and potential issues, helping them identify and address anomalies in their transactions. Intelligent systems can enhance the operational efficiency by automating financial analysis and reducing manual work. Also, machine learning models can help predict financial risks more accurately than a lot of the traditional methods by identifying patterns and providing more precise predictions.

Despite these advantages, the study shows that there are limitations to what can be achieved with technology for the problem of street sellers. Many sellers are still facing difficulties with low digital literacy, understanding the GST procedures, Internet connectivity and concerns regarding cyber security and data protection. Also, some vendors are concerned that they will become more expensive or have to deal with more complex compliance obligations as a result of entering into the official tax system. The challenges highlighted by these issues bring behavioral and social challenges to the fore that are caused by the digital transformation. Hence, awareness creation education, financial education and enabling policy of government is as crucial as technology innovation to achieve the success of digital GST inclusion.

Another point of concern in the paper is the restrictions of 100% automated AI financial systems. AI technologies are faster and more accurate at analyzing data, but they may lack the ability to make judgments on context, emotional intelligence and ethics. Financial choices often involve complex human situations which aren't always apparent in the statistics. For example, automated systems may fail to accurately interpret fluctuations in the company during seasons, economic conditions, and financial challenges of individuals. Thus, there is a risk of compromising fairness, accountability, and openness if AI is used excessively without human oversight.

The discussion is on the need for human-AI collaboration rather than automation. Collaborative system is when human experts bring ethical judgment, flexibility in decision making and practical understanding, and AI offers analytical and data processing. A more dependable and trustworthy financial environment is produced by this equilibrium. Human contact is especially important in social sensitivity and ethical responsibility domains, like the policy implementation, customer service, financial regulation, and taxation.

The paper then delves into the potential that India's dream of a digital and inclusive economy can be realized with the "Street Venders" becoming "Smart Venders". Smart vendors on the other hand are not just digital-friendly vendors who take e-payment, they are financially visible players in a networked economy, supported by formal financial access, technology and transparency. The adoption of UPI, AI, and digital governance frameworks can help small businesses take steps toward achieving long-term economic sustainability and sustainable growth.

Limitations of the Study

The secondary information sources used in this study, which include journals, reports, conference papers and scholarly information, may limit the reliability and validity of the results reached in this study. The study's results may not always be relevant to other countries or sector due to the limited scope of the study which only focuses on street sellers in India and small, informal units. The rapid progress in GST, AI and UPI technology may potentially change the future outcomes. Limited Internet connectivity, low digital literacy and privacy concerns by vendors affect Data availability and Digital adoption. Moreover, there is hardly any study done that connects the smart vendors, GST inclusion, AI and UPI in an integrated study. Despite these constraints, the report provides valuable data and insights into financial inclusion and digital transformation in India.



VI. Conclusion

The findings of the study conclude that the integration of UPI, a payment system, and the implementation of a GST system along with the use of AI has made the street seller's smart vendor's thanks in India. Digital payment solutions have revolutionized the way small vendors process transactions, providing a more efficient and transparent financial landscape, and enabling them to gradually adopt official financial systems and taxes. UPI driven transactions have helped in improving tax inclusion through the creation of trusted digital records, which facilitate tax compliance and accountability. Moreover, AI technologies, such as automated billing and fraud detection, predictive analysis and financial monitoring, enhance the efficiency of operations, thereby supporting efficient digital governance and informed financial decisions. The findings also indicate that digital inclusion brings advantages for the access of the vendors to financial empowerment and other economic development opportunities, including access to welfare programs, banking services, credit, insurance, etc., provided by the government. The study underscores, however, the importance of recognizing that social, ethical and practical challenges of informal enterprises can't be solved by technical innovation alone. Despite the many benefits of adoption, the technology and associated challenges are still limiting the adoption by many suppliers, including lack of digital literacy, threats from cyber security, poor infrastructure, and tax anxiety. Therefore there is a need for ethical governance, policy support, human judgment and awareness campaign for long term implementation.

Future Scope

Future study can be carried out to get in-depth practical knowledge on the concept of digital adoption and GST involvement so the primary data collection methods such as survey and interview of street vendors can be used. Comparative studies of digital change within multiple states or countries can further inform understanding of regional digital change patterns. Comparative studies of digital change across multiple states or countries can help deepen understanding of patterns of digital change regionally. Future research could involve the use of advanced AI technologies, blockchain based financial systems, cyber security frameworks and real time digital taxation models for unofficial enterprises.

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