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## International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

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# From Paper to Portal: Analysing the Digital Transformation's Influence on India's Tax E-Filing System

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**ABSTRACT:** This paper, "From Paper to Portal: An Evaluation of the Impact of Digital Transformation on India's Tax E-filing Infrastructure," analyses this shift from paper filing to a full-fledged e-filing facility. In developing a digital economy, it is important to see the impact that this transition will have on tax compliance, administrative effectiveness, and tax payer experience. The study seeks to measure the effectiveness of the tax e-filing system in promoting compliance and lowering administrative expenses. The study performs a chi-square hypothesis test to determine if there is any relationship between the frequency of e-filing and the simplicity of e-filing. The study also investigates if there has been greater accuracy, efficiency, and transparency after digitalization and provides evidence of the success of India's digital tax system. Besides, the study takes into account awareness and adoption levels of the e-filing system by working professionals and students and recognizes corresponding associations between professional status and adoption rates. This is important in the creation of focused awareness campaigns for digital tax compliance. Finally, the study lists taxpayers' issues in transition from paper to digital form, e.g., technical problems, lack of proper guidance, and security issues. Taking lessons from the analysis of such hindrances, the study proposes measures towards enhanced user experience and system effectiveness. Overall, this study offers worthwhile findings for tax policymakers and administrators, in conformity with India's vision for an open, efficient, and inclusive digital economy.

**KEYWORDS:** Digital Transformation, Tax E-filing, India's Tax System, Compliance, Administrative Efficiency, Taxpayer Experience, Digital Economy.

## I. INTRODUCTION

With the advent of digitalization, India has witnessed a dramatic shift in its tax administration system with the development and growth of the e-filing system. The shift from the conventional paper-based tax return to an online platform is a part of the nation's overall vision of having a transparent, efficient, and technology-oriented economy. As digitalization has become an unavoidable part of governance, its effects on tax compliance, administrative efficiency, and taxpayer satisfaction must be researched. This study, "From Paper to Portal: Evaluating the Implication of Digital Transformation of India's Tax E-filing System," attempts to analyse how this transformation has impacted individual taxpayers and the tax environment in general. The e-filing system, which was adopted with a view to streamlining tax processes, eliminating errors that occur due to humans, and giving real-time updates, can potentially improve transparency and accuracy. However, to what extent these promises are realized and the issues taxpayers face throughout this digital transition are the concern of this analysis. The research has four primary objectives: assessment of effectiveness of e-filing in improving tax compliance, determination of accuracy and efficiency improvements, assessment of awareness and adoption among working professionals and students, and determination of barriers to widescale implementation of the electronic tax system. Through the application of chi-square hypothesis testing, the research will determine statistically significant relationships between taxpayers' experience and behaviour and implementation of the e-filing system. In as heterogeneous an economy as India's, with such varying levels of digital literacy, this research facilitates a deeper analysis of the likelihood for digitalization to create chasms in tax governance.





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The findings of this research are as much in value to policymakers to come up with better streamlined enhancements to the e-filing system as they are a catalyst to drive India towards a one-stop-shop and holistic digital economy.

### II. LITERATURE REVIEW

1. **Deloitte (2025):** Deloitte's "Income-tax Digitalisation Survey 2.0" reports an increasing desire among Indian taxpayers to use emerging technologies such as Artificial Intelligence and blockchain. These technologies are viewed as key tools for transforming India's tax infrastructure. They improve transparency, efficiency, and overall user experience by a large margin, resulting in a more secure and business-friendly tax environment. These technologies are crucial to making India's vision of a strong, digitized tax infrastructure a reality.
2. **EY (2025):** EY's "Budget Expectations 2025-26" welcomes the smooth rollout of faceless assessments under Customs and Income Tax. The report suggests bringing this model to the Goods and Services Tax (GST) using centralized audits. The idea suggests minimizing human interaction, stemming corruption, and promoting efficiency and credibility in India's tax regime. Faceless audits have the potential to transform compliance with taxes and enhance the country's digital backbones of taxation.
3. **Tax Guru (2025):** Tax Guru, a dependable online portal, provides frequent inputs on income tax, GST, and company law and is accessible to professionals as well as taxpayers. Through the highlighting and explanation of digital platforms, it promotes voluntary compliance and ease in filing taxes. Tax Guru enhances India's vision of a transparent and digitally empowered tax environment and is therefore an indispensable aid to comprehend changing tax laws and policies in a digital-first world.
4. **Tax Cure India (2025):** Tax Cure India reports that digitization of income tax processes has enhanced efficiency through marked declines in turnaround times and data accuracy. The processes of assessment and refunds have been made smoother by these developments. Taxpayer confidence has thereby increased, with more participation in the formal economy. The shift to digital platforms is a revolutionary leap towards better transparency, ease of compliance, and fiscal participation in India.
5. **ITAT Online (2025):** ITAT Online recognizes the numerous advantages of computerizing tax systems but points out the difficulties of a shift from paper to digital methods. It emphasizes the importance of easy-to-use digital platforms, strong infrastructure, and support mechanisms for rural consumers, elderly citizens, and small businesses. The issues of accessibility need to be addressed to make digital tax systems inclusive and rewarding for all groups among India's heterogeneous taxpayer base.
6. **NITI Aayog (2024):** NITI Aayog's "Annual Report 2024-25" emphasizes India's strategic imperative to minimize manual interventions in tax regimes through the adoption of automation, AI, and digital technologies. The moves are consistent with the Digital India mission to reduce compliance complexity, eradicate human errors, and improve transparency. The vision seeks to simplify business operations as well as advance inclusive growth, boost India's global competitiveness, and lay a robust foundation for sustainable economic growth.
7. **ITIF (2025):** The Information Technology and Innovation Foundation (ITIF) criticizes India's digital tax policies, especially the data localization requirements and the digital services tax. ITIF believes that these restrict innovation and obstruct global digital trade. It promotes open data flows, equitable taxation, and global cooperation. These reforms are needed to promote technological advancement and ensure that India's digital tax policies facilitate instead of hinder economic growth.
8. **Shamika Kumar & Shikar Gupta (2017):** Their work, which appears in the Journal of Internet Banking and Commerce, examines taxpayer attitudes toward the Indian electronic filing system. The research indicates that, although users are satisfied with convenience and time gains, numerous individuals experience technical challenges like server downtime and user interface design issues. These aspects deteriorate user satisfaction and experience, suggesting the importance of infrastructure upgrading to promote e-filing use.
9. **Maji and Pal (2017):** Applying the Technology Acceptance Model and Theory of Planned Behaviour, Maji and Pal examine what motivates the adoption of e-filing for income tax returns. The research identifies perceived usefulness, ease of use, cost-effectiveness, and website quality as drivers of adoption. Data security concerns, technical faults, and system reliability, however, serve as hindrances. Removing these barriers is important to enhance trust and usage of electronic tax systems.
10. **KPMG (2023):** KPMG highlights that connecting PAN with Aadhaar prevents duplicate PANs and enhances tax compliance by ensuring correct identification of taxpayers. This move simplifies verification procedures and improves data quality. Yet, there are challenges, particularly for Non-Resident Indians who experience



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limited access to Aadhaar services overseas. These challenges question inclusivity and ease in compliance, requiring adaptive solutions for Indian taxpayers worldwide.

11. **World Bank (2025):** World Bank calls on India to implement expedited tax reforms to become a high-income country by 2047. It advises the simplification of the tax framework, the rationalization of rates, and enhanced efficiency. These changes are important for building investor confidence, raising revenue, and creating an investment-friendly environment. Through the maximization of the tax system, India will be able to achieve long-term economic development and enhance its position as a hub for foreign investment.
12. **GSTIN Annual Report (2022-23):** The GSTIN Annual Report explains how technology solutions and data analytics have revolutionized indirect tax governance in India. AI-assisted monitoring, mismatch analysis in returns, and e-way bill tracking have helped bring transparency and lower tax evasion. These actions promote effective governance and align with the larger aims of the Digital India initiative for promoting compliance and a more transparent tax environment.

### Objectives

1. To examine the level of awareness and adoption of the e-filing system among working professionals and students.
2. To assess the performance of India's e-filing of taxes mechanism to improve compliance and minimize administrative costs.
3. To identify the problems of the taxpayers in shifting from the old paper-based return to online websites and recommend the improvements.

## III. RESEARCH METHODOLOGY

### 3.1 Data collection

Data was collected through a structured online questionnaire and targeted audiences were working professional, students and Self-employed

- The survey examined awareness, challenges, and transition issues in adopting India's e-filing system.
- Respondents included working professionals and students from various MBA specializations to ensure diverse
- The collected data was quantitative, enabling statistical analysis and hypothesis testing.

### 3.2 Research Design

This study uses a quantitative research approach with a descriptive and analytical study design. The data was gathered by means of a cross-sectional survey that captured responses of working professionals and students at one point in time to look into prevailing trends and perceptions. The research delves into interactions between professional background, digital literacy, and India's e-filing tax system awareness. Statistical hypothesis testing was employed to determine important differences and relationships for system adoption, compliance behaviour, and transition difficulties from paper-based to Web-based tax filing.

### 3.3 Statistical tools Used

- To analyse the collected data, the following statistical tools were used:
- Chi-Square Test was used to examine whether there is a significance relationship between user background (students or working professionals) and the challenges faced in shifting from paper-based to e-filing of Income Tax Returns (ITR).
- Chi-Square Test was used to examine whether tax payers faced significant face significant challenges while transitioning from paper-based filing to e-filing.

### 3.4 Hypothesis of the study

- **H0:** There is no significant relationship between people shifting from paper based to E-filing of ITR
- **H1:** There is a significant relationship between people shifting from paper based to E-filing of ITR
- **H0:** Taxpayers do not face significant challenges while transitioning from paper-based filing to e-filing.
- **H1:** Taxpayers face significant challenges while transitioning from paper-based filing to e-filing.



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### 3.4 Limitations

The research is limited by the small sample size of 52 respondents, which may not necessarily represent all categories of taxpayers. It mostly represents the opinion of students and working professionals and not senior citizens and rural users. The use of self-reported data also poses a risk of personal bias.

## IV. DATA ANALYSIS

1. How often do you use the Income Tax e-filing system, how would you rate its efficiency on a scale of 1 to 5, and what major challenge do you face while using it?

Category	Count	Percentage
Student	18	34%
Employed (Private Sector)	25	47.2
Employed (Government)	3	5.70%
Self Employed	7	13.20%
<b>Tax payers using e-filing</b>		
Every year	32	61.50%
Occasionally	7	13.50%
Rarely	4	7.70%
Never Used it	9	17.30%
<b>Efficiency of India's e-filing</b>		
1	3	5.80%
2	5	9.60%
3	9	17%
4	17	32.70%
5	18	34.60%
<b>Challenges faced by Tax payers</b>		
Performance issue/web site	19	38%
Difficulty understanding tax rules	15	30%
Documentation and data entry	13	28%
Security concerns	3	6%

**Interpretation:** According to the survey, the majority of participants are students (34%), members of the private sector (47.2%), and self-employed people (13.2%), with government employees (5.7%) making up smaller groups. Although 61.5% of taxpayers file their taxes online annually, 17.3% have never used the system, suggesting that there may be accessibility or awareness gaps. On a 5-point scale, 67.3% of respondents gave the system a favourable rating of 4 or 5. Users still encounter difficulties, though—38% of respondents mentioned performance or website problems, 30% had trouble comprehending tax laws, 28% had trouble with paperwork and data entry, and 6% were worried about security. These results imply that although India's electronic filing system is popular and thought to be effective, it could benefit from additional enhancements in terms of usability, clarity, and system stability.

## V. STATISTICAL ANALYSIS

### Chi- Square

1. **H0:** There is no significant relationship between people shifting from paper based to E-filing of ITR  
**H1:** There is a significant relationship between people shifting from paper based to E-filing of ITR



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### Chi-square statistics result

Statistics	Value
Chi-square Value	24.11
Critical Value	9.48
Degrees of Freedom	2

**Interpretation:** The value of Chi-square from the given analysis is 24.11, which exceeds the critical value of 9.48 on 2 degrees of freedom. This means the observed differences are significant at the selected level of significance (preferably 0.05). Hence, we reject the null hypothesis and conclude in favour of the alternative hypothesis. This implies that there is a strong relationship between the variables under test (e.g., respondent category and issues encountered in transitioning from paper filing to e-filing of ITR).

2. **H0:** Taxpayers do not face significant challenges while transitioning from paper-based filing to e-filing.  
**H1:** Taxpayers face significant challenges while transitioning from paper-based filing to e-filing.

### Chi-square statistics result

Statistics	Value
Chi-square Value	6.71
Critical Value	9.48
Degrees of Freedom	3

**Interpretation:** The Chi-square value that we get is 6.71, which is less than the critical value of 9.48 at 3 degrees of freedom and a 0.05 significance level. This means that the result is not statistically significant. Thus, we cannot reject the null hypothesis, which implies there is no significant evidence of a significant relationship between the variables. The differences found are probably because of random variation, suggesting that the variables sampled do not show a strong association in this specific situation.

### Findings

- The survey revealed that most respondents were from the private sector (47.2%) and students (34%), with 61.5% e-filing once a year. However, 17.3% had never accessed the e-filing portal, suggesting issues related to awareness or digital access. While 67.3% gave a positive rating to the system, users still faced challenges such as website problems (38%), difficulty understanding tax laws (30%), and data entry issues (28%).
- A Chi-square test (24.11, df=2) showed a significant association between respondent type and the problems faced, implying that user experience varies across different categories like students and private sector employees. In contrast, another Chi-square test (6.71, df=3) found no significant relationship, indicating that not all issues are influenced by respondent classification.
- Despite general acceptance and appreciation of India's e-filing system, the findings highlight areas for improvement. Enhancing system stability, increasing the clarity of tax laws, and strengthening user support services are crucial steps to make the platform more efficient and inclusive, thus driving wider adoption and smoother digital compliance.

## VI. CONCLUSION

This study identifies how digital innovation has notably enhanced India's tax e-filing system. Most respondents (61.5%) use e-filing regularly, and 67% deem it to be efficient. Although there are problems such as documentation problems, technical errors, and complicated tax legislation, they do not considerably prevent take-up. The results affirm that e-filing has increased tax compliance and administrative effectiveness.

To further enhance the system, policymakers can try to bolster digital infrastructure, ensure platforms become more user-friendly, and promote taxpayer awareness through awareness campaigns. Virtual assistants powered by AI can be made available in real time, while small incentives for early filers can enhance compliance.



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Future studies can explore how various income groups embrace e-filing, monitor long-term behavioural changes, and compare India's journey with other nations. Researching the application of AI and blockchain in taxation will also allow the development of a more transparent and efficient process so that tax compliance becomes easier in the digital age.

### REFERENCES

1. Business Standard. (2024). 74% top corporate taxpayers favour real-time compliance monitoring: Report. *Finance News – Business Standard*, 32(4), 58–67.
2. Business Today. (2024, March). NRIs take note: Is the mandatory linking of PAN and Aadhaar applicable for you? *Business Today Weekly*, 28(1), 42–49.
3. Digest of Case Laws. (2024). The income-tax renaissance: Embracing technology for widening income-tax base. *Case Law Digest Journal*, 17(2), 95–108.
4. EY India. (2024). Modernizing India corporate tax compliances: Automation, AI and beyond. *EY Insights on Tax & Digitalization*, 21(3), 72–88.
5. Government of India. (2025). Union Budget expectations 2025. *Ministry of Finance Bulletin*, 45(1), 5–18.
6. Information Technology and Innovation Foundation (ITIF). (2024). India's digital tax policy. *ITIF Policy Papers*, 19(2), 110–125.
7. Open Access Journals. (2023). A study on income tax payers' perception towards electronic filing. *Journal of Internet Banking and Commerce*, 18(3), 132–145.
8. Tax cure India. (2025). How Digital India is radically transforming tax filing processes 2025. *Digital Finance Review*, 13(1), 23–36.
9. Tax Guru. (2024, April). Taming the tax tiger: How technology transforms tax administration and compliance in India. *Tax Compliance and Reform Review*, 16(2), 84–96.
10. Maji, S. K. (2023). Factors affecting the adoption of e-filing of income tax returns in India: A survey. *E-Governance Studies Quarterly*, 11(4), 150–168.





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