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Journal of Development Economics and Management Research Studies (JDMS)
A Peer Reviewed Open Access International Journal
ISSN: 2582 5119 (Online)



Crossref Prefix No: 10.53422
11 (19), 103-112, January-March, 2024
@Center for Development Economic Studies (CDES)

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A Study on Assessee's Perception Towards AI-Powered Income Tax Filing in Chennai City

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Abstract

Taxation plays a significant role in public finance, particularly in developing economies like India. The Indian tax system faces issues with evasion and non-compliance. AI-powered tax preparation software helps individuals file accurate returns on time. AI algorithms analyze financial data to identify savings opportunities, maximizing deductions while minimizing tax burden. This study aims to comprehend taxpayers' perceptions of online tax filing websites and their willingness to use them in the future for their tax filings. This research aims to thoroughly examine the advantages and concerns taxpayers harbor concerning the utilization of AI-powered software. Moreover, we endeavor to establish whether the implementation of such software results in enhanced tax compliance due to its ability to streamline the filing process. The results of this investigation may illuminate the possibility of AI-powered tax software overtaking human tax advisors or preparation services.

Keywords: Income Tax, Artificial Intelligence, Tax Compliance, Electronic Tax Filing.

INTRODUCTION:

Taxes are the primary source of revenue for India's government, used for infrastructure development, healthcare, education, and more. It employs both progressive and proportional taxation based on income and other factors. Taxes help the government fulfil its development goals.

India's tax system is complicated and challenging to navigate due to the multitude of taxes, creating a significant compliance burden, increased administrative costs, and a breeding ground for tax evasion. There is also a lack of clarity and ambiguity in tax laws and provisions,

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resulting in disputes, prolonged litigation, and uncertainty, making it difficult for taxpayers to plan their finances effectively and comply with the tax laws.

Filing your income tax returns online has become a lot easier and more efficient due to the new e-filing process introduced by the income tax department of India. The process is aimed at replacing the traditional manual systems with a more secure and streamlined online system. The new process is designed to be user-friendly with an appealing interface and easy navigation, making it easier for taxpayers to file their returns online.

In the modern era of digitization, AI and machine learning have helped automate the income tax return process, saving time and eliminating manual data entry. Private online filing sites further simplify the process. This study aims to determine if AI-powered tax software increases compliance, replaces human advisors, and addresses taxpayer concerns. This paper aims to outline the primary motivating factors of the new e-filing process that taxpayers require the most. We have been seeking to gain a better understanding of the diverse perspectives regarding the potential of AI-powered tax filing software. Specifically, we have been exploring whether such software could potentially replace tax professionals in the future or instead serve as valuable virtual assistants to these professionals, significantly streamlining their day-to-day operations.

ROLE OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING IN E-FILING:

As the economy develops, the amount of data that has to be processed by the income tax department has increased which leads to the usage of machine learning to train the big data and helps the artificial intelligence to analyse and produce the results whenever required.

Let's get a glimpse of the e-filing procedure through the government income tax portal, where a taxpayer just has to login into the portal with his pan card and password, the AI with its fast recon search engine automatically analyses the government records and matches the pan card details of the taxpayer with his form 16, form 26AS, Annual information statement (AIS) and Taxpayer information statement (TIS). The portal will be auto-populated with the taxpayer's details including his total income and all his deductions and it automatically calculates the tax as per the regime of tax which is chosen by the taxpayer. The taxpayer has to just verify all his details have been auto-populated correctly and has to make his online payment of tax.

Private tax filing portals utilize advanced AI tools such as chatbots to offer immediate guidance and assistance. Additionally, a tax planning optimizer tool takes basic inputs such as age, income, savings, and insurance premiums to provide an unbiased view of tax savings. Users can implement the suggestions provided by this tool to plan their expenditures and investments, ultimately minimizing their tax outgo and generating a higher take-home salary. Furthermore, the tool generates a comprehensive personalized report outlining tax-saving recommendations, including suggestions on restructuring one's CTC and claiming additional deductions.

REVIEW OF LITERATURE:

A recent study conducted by Kumaraswamy and Shivakumara (2022) found that new technologies are rapidly being introduced and improved in all fields, including the effective method of filing income tax returns online, known as e-filing. This method saves time, energy, and cost, and can reduce stress. The study shows that current e-filing users are satisfied with

the facilities, but many individual taxpayers are not aware of the e-filing procedures. Therefore, taking sufficient steps to create more awareness among taxpayers about e-filing for income tax is essential. Keywords: e-filing, assesses, income tax.

Vikram and Jain (2021) conducted a study on the factors that contribute to taxpayers' convenience when it comes to e-filing their income tax. Their goal was to validate the factors that have been identified as influential using the Confirmatory Factor Analysis (CFA) technique. The major factors that were found to be responsible for taxpayers' convenience when e-filing are the procedure of e-filing, accuracy, confidentiality, accessibility to past data, and ease of use.

Matharu, S.K., Haryani, S., and Motwani, B. (2018), The authors analysed the perception of taxpayers towards e-tax filing based on demographic variables. They collected data through a survey and analysed it using SPSS 16. The study revealed that there were no significant differences in perception based on gender, education level, and age groups regarding e-filing. However, the occupation did show a significant difference in perception.

PROBLEM-STATEMENT:

The income-tax filing process in India has always been perceived to be a cumbersome process for assesseees and inconsistent tax compliance on the other hand has been a huge concern for the Government. The significance of Artificial Intelligence and Machine-learning has been rapidly growing and is being adopted across various industries for greater efficiency in operations. The primary objective of integrating AI into the Income-Tax Filing system is to simplify tax-filing processes for the assesseees and in enabling them to finish filing their taxes by using Form-16. The AI-driven tax filing systems are observed to be a huge revolution in the Indian Tax, it is claimed that the AI-driven systems would result in increased tax compliance and coordination from the taxpayers.

This research is an attempt made to understand whether AI & ML have a role to play in revolutionizing the process of Income-Tax filing in India by replacing Tax advisors in the future. An understanding of the assessee's personal experience from using AI-driven Income-tax filing methods would be imperative to draw logical conclusions to this research.

OBJECTIVE OF THE RESEARCH:

1. To understand how taxpayers perceive the adoption of tax filing software that utilizes Artificial Intelligence.
2. To find out whether AI-powered Tax-filing software would result in increased tax compliance.
3. To find out whether AI-powered tax software replaces human tax advisors or preparation services.
4. To understand the main concerns that taxpayers have when it comes to using AI-based tax software.

DESIGN/METHODOLOGY: Instruments or data collection methods: The data was collected from a questionnaire and secondary sources like articles, research papers, and reports from CBDT were consulted.

LIMITATIONS OF THE STUDY: The study was cross-sectional, so behavior changes couldn't be tracked. Data was collected from Chennai individuals and may apply to similar metropolitan areas.

DATA ANALYSIS AND INTERPRETATIONS:

Table1: Demographics

Social Factors	Classification	Frequency	Percentage%
Gender	Male	39	78.00
	Female	11	22.00
Age	Under 18	0	0
	18-25	23	46.00
	26-35	5	10.00
	36-45	11	22.00
	46-55	10	20.00
	Above 56	1	2.00
Occupation	Employed (Full-Time)	21	42.00
	Employed (Part-Time)	2	4.00
	Self-Employed	4	8.00
	Student	22	44.00
	Retired	0	0.00
	Unemployed	1	2.00
Annual Income Range	Less Than Rs.250000	23	46.00
	Rs.250,000 – Rs.5,00,000	4	8.00
	Rs.5,00,000 – Rs.7,50,000	7	14.00
	Rs.7,50,000 – Rs.10,00,000	2	4.00
	More Than Rs.10,00,000	14	28.00

This study was conducted by collecting responses from 50 participants who have filed their income tax returns or possess the knowledge of filing returns on their own through income tax portals or private AI-powered tax websites or with the help of tax professionals.

Table 2: Occupation of tax filers and their level of satisfaction with their experience with the use of AI-powered tax websites.

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	0.982993	4	0.245748	0.47654	0.752709	2.583667
Within Groups	22.69048	44	0.515693			
Total	23.67347	48				

Interpretation:

H₀: There is no significant effect of occupation on their level of satisfaction with their experience with the use of AI-powered tax websites.

H₁: Occupation significantly influences the level of satisfaction with their experience with the use of AI-powered tax websites

From the above table, the significant p-value is 0.752709 which is greater than 0.05. so the null hypothesis is accepted. there is no significant effect of the occupation of assesses on the level of satisfaction with the usage of AI-powered Tax software. This shows, assesses from different occupations are satisfied with the easy usage of online Tax filing websites.

Table 3: Age groups and the extent of reliance kept on tax advice provided by AI.

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	16.90656	4	4.22664	0.687598	0.604324	2.578739
Within Groups	276.6134	45	6.146965			
Total	293.52	49				

Interpretation:

H₀: There is no significant relationship between the Age of the assessee and the extent of reliance kept by them on tax advice provided by AI.

H₁: There is a significant relationship between the Age of the assessee and the extent of reliance kept by them on tax advice provided by A

From the above table, the significant p-value is 0.387898 which is greater than 0.05, so the null hypothesis is accepted. There is no significant relationship between age groups and the level of trust kept in the tax advice given by AI.

Table 4: Gender and method of filing income tax returns.

CHI-SQUARE TEST

Observed table:

	Filing On Their Own Through Income Tax Portals Or Private Websites	Filing With The Help Of Tax Professionals	Total
Male	20	19	39
Female	6	5	11
Total	26	24	50

Expected table:

	Filing On Their Own Through Income Tax Portal Or Private Websites	Filing With The Help Of Tax Professionals	Total
Male	20.28	18.72	39
Female	5.72	5.28	11
Total	26	24	50

Results:

X ²	0.036609
DF	1
P-VALUE	0.848264

Interpretation:

H₀: There are no significant associations between gender and the method of filing Income Tax returns.

H₁: There are significant associations between gender and the method of filing Income Tax returns.

From the above table, the significant p-value is 0.848264 which is greater than 0.05, so the null hypothesis is accepted. There are no significant associations between gender and the method of filing income tax returns.

Table 5: Occupation and their opinion on whether AI-powered Tax-filing software would completely replace human tax advisors in the future.

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	8.121558	4	2.03039	1.587387	0.194067	2.578739
Within Groups	57.55844	45	1.279076			
Total	65.68	49				

Interpretation:

H₀: There is no significant effect of occupation on their opinion over AI can replace human tax advisors in the future.

H₁: Occupation significantly influences their opinion that AI can replace human tax advisors in the future.

From the above table, the significant p-value is 0.194067 which is greater than 0.05, hence, the null hypothesis is accepted. There is no significant relationship between the occupation and their opinion over AI-powered tax filing software would completely replace human tax advisors in the future.

FINDINGS & SUGGESTIONS:

- In this research study it is found that there is no significant difference between the occupation of the tax filers and their level of satisfaction in using AI-powered tax websites. It is observed that people with less complicated sources of income like salary income and other sources adopt this software, it reduces the complexity of the process and their time and money spent.
- According to the study, individuals of all ages rely on AI-generated tax advice to the same extent, as their reliance is predicated on their comprehension of the tax system.
- It is evident from the above study that, the gender of the income-tax filers does not affect the method they use to file their income tax returns.
- It is also observed that a simplified process has motivated 52% of individuals to file their returns on their own.
- The above study suggests that there is no significant difference between the occupation and whether it is believed that AI-powered Income-Tax filing software would replace human tax advisors in the future. AI has helped to reduce the redundant data entry process and best investment options but still, people across various occupations believe AI cannot provide personalized tax-saving advice like tax professionals.
- The above study reveals that a majority of the sample tested is welcoming AI-based tax filing methods, the key reasons being that AI-driven methods could help increase accuracy, are time-saving, and that they reduce human errors.
- The major concerns expressed concerning AI-driven Income-tax filing methods are; Data privacy and security and the difficulty in understanding AI algorithms.

CONCLUSION:

This research study attempts to understand the tax filers' perception towards the inclusion of AI in tax-filing procedures and whether there is a significant belief that AI has the potential to replace human tax professionals in performing tax-filing procedures and providing tax advice and recommendations in the future. The above research is limited to a specific geographical area (Chennai) and with the responses received from a survey conducted concerning the objective, it is observable that AI-driven tax-filing software is being welcomed at its current capacity but there are major concerns concerning data privacy and security, Advancements in AI and technology in the future could address these issues and be welcomed by the society.

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A QUESTIONNAIRE ON AN ASSESSEES PERCEPTION TOWARDS AI-POWERED INCOME-TAX FILING

We the students of Ramakrishna Mission Vivekananda College are performing a research activity on how assesseees perceive the role of Artificial Intelligence (AI) in Income-Tax Filing. we hereby attach the Google form as the mailed questionnaire and we humbly request our respondents to spend some time to fill your responses with due diligence. Your honest responses will help us to conduct valid research. This project will be used only for academic purposes, your responses will be kept confidential.
Thanks in advance.

SURVEY-QUESTIONNAIRE

1. Age:
 - a. Under 18 b. 18-25 c. 26-35 d. 36-45 e. 46-55 f. 56 and above
2. Gender:
 - a. Male b. Female c. Non-binary d. Prefer not to say

3. Occupation:
 - a. Employed (full-time) b. Employed (part-time) c. Self-employed d. Student e. Retired f. Unemployed g. Other (please specify): _____
4. Annual Income Range:
 - a. Less than Rs.250000 b. Rs.250,000 – Rs.5,00,000 c. Rs.5,00,000 – Rs.7,50,000 d. Rs.7,50,000 – Rs.10,00,000 e. More than Rs.10,00,000
5. How many years have you been filing taxes?
 - a. 0-2 years b. 3-5 years c. 6-10 years d. More than 10 years
6. In which of the following ways do you file your Income-Tax Returns annually?
 - a) filing on your own through the Income Tax Portal, b) filing on your own through private tax-filing websites, or c) with the help of Tax Professionals
7. How would you rate your overall experience with traditional tax filing methods (e.g., paper-based, in-person assistance)?
 - a. Very Satisfactory b. Satisfactory c. Neutral d. Unsatisfactory e. Very Unsatisfactory
8. What motivated you to use AI-based tax filing software? (You may choose multiple options if applicable.) {SD- Strongly Disagree, D-Disagree, N-Neutral, A-Agree, SA-Strongly Agree}
 - a. Simplified tax filing process b. Time-saving convenience c. Accuracy and reduced chance of errors d. Recommended by someone e. Cost-effectiveness f. Curiosity to try new technology
9. How would you rate your overall experience with AI-based tax filing software?
 - a. Excellent b. Good c. Average d. Poor e. Very Poor
10. What specific features do you appreciate in AI-based tax filing software? (You may choose multiple options if applicable.) {SD- Strongly Disagree, D-Disagree, N-Neutral, A-Agree, SA-Strongly Agree}
 - a. Auto-population of information b. Real-time support and assistance c. Tax refund estimation d. Data security and privacy measures e. User-friendly interface f. Smart suggestions for tax deductions and credits g. Other (please specify): _____
11. What are your major concerns, if any, regarding AI-based tax filing software? {SD-Strongly Disagree, D-Disagree, N-Neutral, A-Agree, SA-Strongly Agree}
 - a. Data privacy and security b. Accuracy of calculations c. Lack of human touch or personalized assistance d. Difficulty in understanding AI algorithms e. Other (please specify): _____

12. In your opinion, what are the advantages of AI-based tax filing software compared to traditional methods? {SD- Strongly Disagree, D-Disagree, N-Neutral, A-Agree, SA-Strongly Agree}

a. Faster and more efficient filing process b. Reduced chance of errors c. Real-time assistance and guidance d. Better organization and storage of tax-related documents e. Other (please specify): _____

13. Do you believe AI-based tax filing software would completely replace human tax advisors or tax preparation services in the future?

14. Please state the reason for the opinion given above.

15. To what extent do you trust tax advice and recommendations provided by AI technology in online tax filing websites? (Rate it on a scale of 1-10)

16. If you have any additional comments or feedback about AI-based tax filing software, please share them here: _____
