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RELATIONSHIP BETWEEN TAX LITERACY AND DEMOGRAPHIC FACTORS: A STUDY OF GOVERNMENT AND NON-GOVERNMENT EMPLOYEES IN PUNJAB

Arwinder Singh[1] and Sonia[2]

[1]Assistant Professor, Department of Business Management and Commerce, Guru Nanak Dev University Regional Campus, Gurdaspur, Punjab (India). E-mail: arwinder.gndu@gmail.com
[2]Senior Research Fellow, Department of Business Management and Commerce, Guru Nanak Dev University Regional Campus, Gurdaspur, Punjab (India). E-mail: soniamusfs.rsh@gndu.ac.in

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Abstract: Tax literacy is crucial for effective financial planning. By understanding various aspects of taxes and tax strategies, individuals can better manage their savings while fulfilling tax obligations. Without formal education in taxation, people often struggle with calculating tax liabilities, filing returns, and utilizing tax-saving deductions and exemptions. Tax literacy involves grasping personal taxation concepts and applying that knowledge to determine tax liabilities and file returns independently. This study aims to explore the relationship between tax literacy and various demographic factors among government and non-Government employees in Punjab. Data were collected from primary sources using a structured and pretested questionnaire. The research focused on government and non-government employees from major cities in Punjab, including Amritsar, Jalandhar, Ludhiana, and Chandigarh. A sample of 250 employees, with 125 from government and 125 from non-government sectors, was surveyed. The results indicate that demographic factors such as gender, income, education, age, and work experience significantly affect tax literacy levels among both groups. The study found that tax literacy is notably lower among women employees, those with lower incomes, less education, younger individuals, and those with less work experience.

Keywords: Tax literacy, demographic factors, Government Employees, Non-Government Employees, Punjab

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1. INTRODUCTION

Tax management is a crucial aspect of financial planning, involving a taxpayer's ability to handle personal tax matters such as calculating tax liability, saving on taxes, making timely tax payments, and filing tax returns on time. To manage these tasks effectively, individuals need to be knowledgeable about the basic concepts of personal taxation, making tax literacy vital. Tax literacy is defined as the knowledge required for individuals to manage personal tax issues efficiently.

In India, the taxation system is often perceived as complex. Many taxpayers struggle to understand and address issues related to determining tax liability, filing tax returns, and saving on taxes, primarily because they lack formal education on taxation. Previous studies have indicated that people believe tax rates in India are excessively high. Due to high tax rates and a lack of understanding of tax matters, many people fail to file their tax returns, resulting in poor tax revenue collection for the government. Taxation is essential for the government to fund public goods and services effectively over the long term. Ignorance about taxes is detrimental both to individuals and the nation, as it can lead to taxpayers overpaying by missing out on entitled tax benefits. In India, the Central Board of Direct Taxes (CBDT), a part of the Department of Revenue under the Ministry of Finance, is responsible for tax collection. According to the Indian Income Tax Act of 1961, an individual's income is classified into five categories: Income from salary, Income from house property, Profits and gains of business or profession, Capital gains, and Income from other sources. An individual can have income from one, multiple, or all these categories. The total income from all categories is termed Gross Total Income. Deductions under Section 80 of the Income Tax Act are applied to the Gross Total Income, resulting in the Total Income, which is taxed at rates prescribed for the particular assessment year.

The structure of the paper is as follows: Section II provides a concise literature review on assessing tax literacy and its connection to demographic factors in both foreign and Indian contexts. Section III outlines the research gap, the study's rationale, and its objectives. The methodology used in the research is detailed in Section IV. Section V presents the findings along with a discussion. Section VI offers the study's conclusions and implications, while Section VII discusses its limitations and proposes areas for future research.

2. REVIEW OF LITERATURE

In a 1996 study, Eriksen and Fallan explored the relationship between tax knowledge and individuals' attitudes and choices toward taxes, focusing on

the Self-Assessment System (SAS). Their findings indicated that higher tax knowledge positively influenced perceptions of fairness, tax ethics, and attitudes toward others' tax compliance. Specifically, increased tax knowledge improved respondents' views on the fairness of the tax system. The study suggested that enhancing tax knowledge could help reduce tax evasion, recommending the integration of tax education into social science curricula.

Fallan's 1999 research examined gender differences in tax knowledge and attitudes, finding that students were more critical of tax evasion when considering themselves, while being stricter about others' tax compliance. Kamaluddin and Madi (2005) assessed tax literacy among salaried individuals in Sarawak and Sabah, Malaysia, finding that Sarawak taxpayers had higher tax literacy. However, employees generally only understood basic tax concepts, indicating the need to improve tax knowledge before the 2004 SAS implementation. Latiff et al. (2005) emphasized the importance of tax literacy and assessed it based on the ability to complete tax forms, interest in learning about taxes, and frequency of errors. Their findings showed that professionals had the highest tax literacy, while farmers had the lowest. Merchants were the most likely to make mistakes on tax forms, though many expressed interest in taxation. Overall, 60% of respondents were considered tax literate, but many lacked practical compliance skills.

Loo and Ho (2005) evaluated Malaysian salaried individuals' understanding of key tax concepts related to the SAS. Their study revealed that most lacked sufficient knowledge to comply with SAS regulations effectively. Madi et al. (2010) similarly found that taxpayers in Sarawak had higher tax literacy than those in Sabah, but both groups were still unprepared for SAS. Palil and Mustapha (2011) studied the role of tax knowledge in shaping compliance behavior among 1,073 Malaysian taxpayers, suggesting that tax education and system simplification could improve compliance. Razak and Adafula (2013) examined the attitudes of Ghanaian taxpayers toward compliance, finding that high tax rates and insufficient understanding of tax laws were significant concerns. Bhushan and Medury (2013) analyzed tax literacy among salaried individuals in India, finding moderate levels of literacy with variations based on demographics such as gender, age, and income. They recommended government initiatives to improve tax education. Chardon et al. (2016) assessed tax literacy in Australia, finding that most Australians had basic or higher literacy, though certain groups lacked knowledge. Their findings highlighted the need for tailored education strategies.

Acharya and Saddiq (2017) examined tax literacy in Dakshina Kannada District, Karnataka, finding that tax literacy levels were generally good and influenced by socio-economic factors. They recommended initiatives to further enhance tax literacy. Moučková and Vítek (2018) assessed tax literacy among bachelor's students in Prague, finding that those with tax course experience were more proficient. Bornman and Wassermann (2018) introduced a framework for tax literacy in the digital economy, focusing on awareness, contextual knowledge, and decision-making, to address emerging compliance risks.

Güneş et al. (2021) studied tax literacy among Turkish university students, identifying the cognitive dimension as the most important factor in determining tax literacy. Kaur and Sekhon (2022) conducted a literature review on tax literacy in India, revealing low levels of literacy, with only 22% considered functionally tax literate. They recommended simplifying tax processes and improving education. Wiquar et al. (2022) linked financial knowledge with tax literacy, suggesting a multi-stakeholder approach to enhance literacy, including government and social media initiatives.

3. RESEARCH GAP AND OBJECTIVE OF THE STUDY

Research on financial and tax literacy is predominantly conducted in developed countries like the US, Australia, UK, and Malaysia, with limited global studies on tax literacy, particularly in India. Previous studies have mainly examined the relationship between tax knowledge and tax compliance behavior, and there is a significant gap in research measuring tax literacy among employees. No research has yet evaluated the connection between tax literacy and various demographic factors (gender, income, education, age, working experience). Therefore, there is a substantial opportunity for further research in these areas, particularly in Punjab. This study aims to investigate the relationship between tax literacy and various demographic factors. Based on the rationale of this section, the following hypotheses have been formed:

H_1: There is a relationship between the gender and tax literacy of government employees, and non-government employees.

H_2: There is a relationship between the income and tax literacy of government employees, and non-government employees.

H_3: There is a relationship between the education and tax literacy of government employees, and non-government employees.

H_4: There is a relationship between the age and tax literacy of government employees, and non-government employees.

H_5: There is a relationship between service experience and tax literacy of government employees, and non-government employees.

4. METHODOLOGY

4.1. Data Source and Sample Design

To evaluate the level of tax literacy among employees of the government and non-government sectors, primary data was obtained from reliable sources. Data were gathered using a carefully developed questionnaire that was validated by extensive research and discussions with experts in the field (Atkinson and Messy, 2012; Bhushan and Medury, 2013). The study focused on employees in the union territory of Chandigarh and the major cities of Punjab (Amritsar, Jalandhar, and Ludhiana), which were selected based on their social, cultural, and educational advancement. 50 incomplete responses were found out of a total sample of 250 employees (125 from each sector). This led to an effective sample size of 200 and an 80 % response rate. We used a non-probabilistic judgment-cum-convenience sampling method since there was no comprehensive list of respondents. Between August 2023 and December 2023, data were gathered by conducting one-on-one interviews with each employee while utilizing the questionnaire.

4.2. Demographic Characteristics

Table 1 shows the demographic characteristics of government and non-government employees. Most government workers are male (60%), while most non-government workers are female (56%). Government employees tend to be older, with 67% over 36 years old, whereas 71% of non-government employees are younger than 36.

Table 1: Demographic Profile of Government and Non-Government Employees

Particulars	*Government Employee*	*Non-Government Employees*	*Chi-Square Value*	*Significance Level*
Gender :				
Male	60	44		
Female	40	56	.433	.511
Age :				
20-35 yrs.	33	71		
36-50 yrs.	56	26		

Particulars	*Government Employee*	*Non-Government Employees*	*Chi-Square Value*	*Significance Level*
More than 50 yrs.	11	3	10.131	.038*
Education Level :				
Undergraduate	7	14		
Graduate	13	19		
Postgraduate & Above	80	67	2.63	.977
Personal Annual Income :				
Below Rs. 2.5 lac	12	42		
Rs. 2.5- 5 lac	27	35		
Rs. 5-10 lac	54	18		
Above Rs. 10 lac	7	5	9.42	.400
Service Experience :				
Below 10 yrs.	40	61		
Between 10 and 20 yrs.	44	32		
Between 20 and 30 yrs.	10	4		
Above 30 yrs.	6	3	11.76	.227

*Note : * Significant at 5 %.*
Source: "Author's own findings"

Most government workers (80%) hold a postgraduate degree or higher, with 13% being graduates and 7% undergraduates. Similarly, among non-government workers, 67% are postgraduates, followed by 19% graduates and 14% undergraduates.

Regarding income, 54% of government employees earn between Rs. 5-10 lacs, while 27% earn Rs. 2.5-5 lacs, and 12% earn less than Rs. 2.5 lacs. Only 7% earn above Rs. 10 lacs. In contrast, 42% of non-government employees earn less than Rs. 2.5 lacs, 35% between Rs. 2.5-5 lacs, 18% between Rs. 5-10 lacs, and 5% over Rs. 10 lacs.

Government employees tend to have more experience, with 60% having over 10 years of service compared to 39% of non-government workers. Conversely, 61% of non-government workers have less than 10 years of experience, compared to 40% of government employees.

4.3. Research Instrument and Scoring Criteria for Tax Literacy

This study assessed tax literacy among paid employees using the OECD's standardized tax literacy questionnaire, developed based on OECD financial literacy guidelines. The questionnaire measured three key components: tax knowledge, behavior, and attitude.

Tax Knowledge: Sixteen questions on personal income taxation topics like tax principles, liabilities, returns, deductions, and refunds. Each correct answer earned half a point, with a maximum score of 8. Scores were categorized as low (1-5) or high (6-8) tax knowledge.

Tax Behavior: Nine questions on tax reduction strategies, management, savings, e-filing, and staying updated on tax laws. Responses were rated on a five-point Likert scale, with a maximum score of 9. Scores were divided into negative (1-5) or positive (6-9) tax behavior.

Tax Attitude: Five statements assessed attitudes towards tax handling, e-filing, tax laws, and rates, scored on a Likert scale. A score of 3 or higher indicated a positive attitude, while below 3 indicated a negative attitude.

Tax Literacy: The overall tax literacy score combined tax knowledge (8 points), behavior (9 points), and attitude (5 points), with a total possible score of 22.The degree of tax literacy is then assessed by dividing the 22 total score into four levels using quartiles; these levels are delineated in Table 2. Based on respondents' results, Table 2 divides tax literacy into four levels:

Table 2*:* Scoring criteria measuring the level of tax literacy of employees

Category	Intervals	Level of TL
1	1-5	Poor TL
2	6-11	Low TL
3	12-17	Average TL
4	18-22	Good TL

Source: www.oecd.org

5. RESULTS AND DISCUSSION

5.1. Tax literacy among government and non-government employees

This study uses the OECD approach to assess tax literacy by combining scores for tax knowledge, behavior, and attitude. As shown in Table 3, the data for both government and non-government employees were analyzed using descriptive statistics such as frequency and percentages. The results indicate that all employees scored more than five points, meaning none had poor tax literacy. Only 5% of government employees fall into the Low Tax Literacy category (6–11 points), suggesting they need to improve their skills in managing tax matters. Half of the government employees scored in the Average Tax Literacy range (12–17 points), indicating a moderate understanding of tax issues with room for improvement. Additionally, 45% of government workers scored in

the Good Tax Literacy range (18–22 points), reflecting strong tax management abilities.

For non-government employees, 11% were categorized as having Low Tax Literacy, indicating a need for better tax knowledge. The majority, 65%, fall into the Average Tax Literacy category, showing adequate tax management skills but a need for further education. Only 24% of non-government employees scored in the Good Tax Literacy range, indicating proficient handling of tax matters.

Table 3: Results demonstrating tax literacy of government and non-government employees

	Government Employees		*Non-Government Employees*	
Category	*Frequency*	*%*	*Frequency*	*%*
1 Poor	0	0	0	0
2 Low	5	5	13	11
3 Average	50	50	65	65
4 Good	45	45	22	24
Total	100	100	100	100

Source: "Author's own findings"

5.2. Relationship between Demographic Factors and Tax Literacy among government, and non-government employees.

This section is focused on finding out the association between various demographic factors, namely, age, income, education, gender and service experience, and tax literacy of employees. To study the association between demographic factors and tax literacy level of employees, one-way ANOVA was run on the composite scores of tax literacy. Accordingly, the present section has been categorized into five sections.

5.2.1. Relationship between gender and tax literacy of government, and non-government employees

This section examines the relationship between gender and tax literacy of both government and non-government employees. It is hypothesized that there is relationship exists between males and females in terms of level of tax literacy of government employees, and non-government employees ($\mathbf{H_1}$). To check any significant difference in the responses of males and females in terms of the level of tax literacy, an independent sample t-test has been applied which is shown in Table 4.

Table 4: Results indicating a relationship between gender and tax literacy of Government and Non-Government Employees

	Government Employees		*Non-Government Employees*	
	Male	*Female*	*Male*	*Female*
N	60	40	44	56
Mean	18.02	16.30	16.36	15.05
Standard Deviation	3.31	3.68	3.21	3.22
Standard Error Means	0.43	.58	.48	.43
t value	2.43		2.03	
p value	.010		.046	

Source: "Author's own findings"

Table 4 indicates that the mean tax literacy score of males is found to be 18.02 and that of females is found to be 16.30. The results as given in table 4 show that t value is significant at 1 % significance level. Thus, it can be concluded that the level of tax literacy varies between male and female working in government institutions. Based on results given in table 4, it is clear that male employees working in government organizations are more literate than female employees in terms of tax literacy.

Also, results in table 4 indicate that the test is significant at 5 % significance level (p value = .046). Mean scores of Males is 16.36 and that of females is 15.02. The results reveal that a significant difference exists between males and females serving in non-government departments in terms of level of tax literacy.

Overall, we can say that level of tax literacy varies significantly between males and females working in government and non-government organisations. The results of present study are in line with past study by Bhushan and Medury (2013). It can also be said that level of tax literacy of males is more than that of females (Kumar and Tanwar, 2020).

5.2.2. Association between income and tax literacy of government, and non-government employees

This section is attempted to study the association between tax literacy and income of government and non-government employees. On the basis of level of income, employees (government and non-government) have been categorized into four categories which include below Rs. 2.5 lac, Rs. 2.5–5 lac, Rs. 5–10 lac and above Rs. 10 lac. Table 5 shows the mean tax literacy score for all income categories for both government and non-government employees. Tax literacy is positively related with the level of income. More the income, more will be the

level of tax literacy of government and non-government employees. It is found that level of tax literacy is comparatively higher for the government employees for all categories of income as compared to non-government employees. It can be said that level of tax literacy among the employees is increasing with the increase in their income level.

Table 5: Income-wise mean tax literacy score of employees

Category	*Government Employees*	*Non-Government Employees*
Below 2.5 lac	16.42 (12)	15.45 (42)
2.5 - 5 lac	17.74 (27)	14.89 (35)
5 - 10 lac	16.81 (54)	16.80 (18)
Above 10 lac	21.29 (7)	18.00 (5)

Source: "Author's own findings"
Note: Parenthesis indicates %ages.

To check whether significant difference exists amongst different income groups with regards to their level of tax literacy, the statistical technique ANOVA is used. The hypothesis (H_2) has been formulated to test the difference between income and tax literacy of both government, and non-government employees.

Before applying ANOVA technique, its assumption of homogeneity of variances is checked individually for government and non-government employees. To test this assumption of ANOVA, Levene's test of homogeneity of variances is applied separately for both government and non-government employees and its results are given in Table 6. Table 6 indicates that Levene's test of homogeneity of variances is significant and does not meet the homogeneity assumption of ANOVA for government employees. To overcome the homogeneity assumption, we have conducted the Welch ANOVA as a robust test which does not consider this assumption. The results of Welch ANOVA are given in table 6. While results of Levene's test in table 6 are found insignificant indicating that equal variances are assumed for different levels of

Table 6: Results indicating homogeneity of variances for income categories of Government employees and Non-Government Employees

	Government Employees	*Non-government employees*
Levene Statistic	3.496	1.404
df1	3	3
df2	96	96
Sig.	.019	.246

Source: "Author's own findings"

income of non-government employees. Therefore, ANOVA test is employed to check significant difference in mean scores of tax literacy for different income categories of non-government employees.

Table 7. reveals that statistic value for Welch ANOVA test is significant at 1 % level of significance. It is concluded that income affects the level of tax literacy of government employees. However, the results of ANOVA as given in table 8 indicate that value of F is significant at 5 % level of significance.

Table 7: Results indicating relationship between income and tax literacy of Government employees

Welch ANOVA	*Statistic*	*df1*	*df2*	*Sig.*
	9.168	3	23.336	.000

Source: "Author's own findings"

It can be said that level of income significantly influences the level of tax literacy of both government and non-government employees. Moreover, tax literacy level of government employees is more than that of non-government employees based on different income groups. Level of tax literacy is positively related to income level and present results are consistent with results of earlier study by Bhushan and Medury (2013).

Table 8: Results indicating relationship between income and tax literacy of Non-government employees

Source of Variation	*Sum of Squares*	*df*	*Mean Square*	*F Value*	*Sig.*
Between Income Groups	74.862	3	24.954	2.45	.050
Within Income Groups	978.448	96	10.192		
Total	1053.310	99			

Source: "Author's own findings"

5.2.3. Association between education and tax literacy of government, and non-government employees

The present section deals with the relationship between tax literacy and education level of government and non-government employees. Based on education, employees have been categorized into three categories including undergraduate, graduate and postgraduate and above. Table 9 shows the mean score of tax literacy for different groups of education as discussed above. It is evident from table 9 that tax literacy level is positively correlated with the

level of education. Higher the education level higher will be the level of tax literacy. The results indicate that tax literacy level of government employees is higher than that of non-government employees. Moreover, tax literacy level is highest for those (government and non-government employees) who have post graduate and above degree followed by graduate and undergraduate employees. It can be said that level of tax literacy among the government as well as non-government employees is increasing with the level of education.

Table 9: Education-wise mean tax literacy score of employees

Category	*Government Employees*	*Non-Government Employees*
Undergraduate	15.00 (7)	13.57 (14)
Graduate	16.15 (13)	15.89 (19)
Postgraduate and above	17.73 (80)	15.99 (67)

Source: "Author's own findings"
Note: Parenthesis indicates %ages.

In order to see statistically significant difference in the mean tax literacy score based on education level of government employees, and non-government employees, the statistical technique ANOVA is employed to test the hypothesis (H_3).

Assumption of homogeneity of variances for ANOVA is checked for government as well as non-government employees. To check the assumption of homogeneity of variances, Levene' test is applied individually for government and non-government employees. Table 10 show the results of Levene's test of homogeneity of variances for government and non-government employees respectively. It is evident from the results that Levene's test fulfills the assumption of ANOVA for both government and non-government employees. Therefore, ANOVA test is employed to check significant difference in mean scores of tax literacy for different education levels of employees.

Table 10: Results indicating homogeneity of variances for education levels of Government employees and Non-Government Employees

	Government Employees	*Non-government employees*
Levene Statistic	0.69	1.32
df1	2	2
df2	97	97
Sig.	.505	.273

Source: "Author's own findings"

The results of ANOVA test are given in table 11 for government and non-government employees respectively. Table 11 indicates that F value for ANOVA is significant at 10 % level of significance. It can be concluded that level of tax literacy depends on the education level of government employees.

Table 11: Results showing relationship between education and tax literacy of Government employees and Non-Government Employees

	Government Employees			*Non-Government Employees*		
Source of Variation	*Between Education Groups*	*Within Education Groups*	*Total*	*Between Education Groups*	*Within Education Groups*	*Total*
Sum of Squares	68.47	1173.642	1242.110	69.11	984.20	1053.31
df	2	97	99	2	97	99
Mean Square	34.23	12.10		34.55	10.15	
F Value	2.83			3.40		
Sig.	.044			.037		

Source: "Author's own findings"

Likewise, the results of ANOVA test as given in table 11 for non-government employees are found significant at 5 % level of significance. It can be said that a significant difference exists in the average tax literacy scores based on level of education of non-government employees. It can be concluded that level of education significantly affects the level of tax literacy of both government and non-government employees. Moreover, tax literacy level of government employees is found more than that of non-government employees based on education levels. Level of tax literacy is positively related to education level (Bhushan and Medury, 2013).

5.2.4 Association between age and tax literacy of government, and non-government employees

This section presents the results relating to relationship between age and tax literacy of government and non-government employees. Past research has shown that age is related to financial literacy as with the passage of time, employees learn more about financial instruments and money management. Employees have been divided into three categories including 20-35 yrs., 36-50 yrs., and above 50 yrs. based on age.

Table 12 gives the mean score of tax literacy for different age groups of government and non-government employees. It is evident from table 12 that

government employees have higher tax literacy compared to non-government employees for all age groups. It is also revealed that tax literacy is highest for government and non-government employees who are above 50 yrs. old, followed by those who fall in age group of 36-50 yrs. and 20-35 yrs. old. It can be said that level of tax literacy among the government as well as non-government employees is increasing with the age of employees. It means that as the employee becomes older and experienced, tax literacy improves.

Table 12: Age-wise average tax literacy score of employees

Category	*Government Employees*	*Non-Government Employees*
20-35 yrs.	16.79 (33)	15.37 (71)
36-50 yrs.	16.95 (56)	15.81 (26)
Above 50 yrs.	20.91 (11)	20.33 (3)

Source: "Author's own findings"
Note: Parenthesis indicates %ages.

In order to see statistically significant difference in mean score of tax literacy based on different age groups of government employees, and non-government employees, hypothesis (H_4) as given below is tested using AVOVA and F value is calculated.

Before using ANOVA method, its assumption of homogeneity of variances is checked individually for both government employees, and non-government employees. Levene's test of homogeneity of variances is applied individually for government and non-government employees to test this hypothesis of equal variances. Table 13 reveal the results of Levene's test of homogeneity of variances for government and non-government employees respectively. It can be seen from table 13 that Levene's test is significant at 5 % level of significance for government employees. It means that Levene's test does not fulfill the assumption of ANOVA test. To overcome the assumption of homogeneity, the Welch ANOVA as a robust test is employed which does not consider this

Table 13: Results indicating homogeneity of variances for age groups of Government employees and Non-Government Employees

	Government Employees	*Non-government employees*
Levene Statistic	3.841	0.082
df1	2	2
df2	97	97
Sig.	.035	.921

Source: "Author's own findings"

assumption. The results of Welch ANOVA are given in table 13. While results in table 13 indicate that Levene's test fulfills the assumption of ANOVA for non-government employees as results are found insignificant.

Table 14 reveals that the value of statistic for Welch ANOVA test is significant at 1 % level of significance. The results of ANOVA test are presented in table 15 for non-government employees. Table 14 indicates that F value is significant at 5 % level of significance. It is inferred from the table 14 and table 15 that tax literacy of government and non-government employees depends on age groups.

Table 14: Results showing relationship between age and tax literacy of Government employees

Welch ANOVA	*Statistic*[a]	*df1*	*df2*	*Sig.*
	15.707	2	34.070	.000

Source: "Author's own findings"

It can be concluded that age of both government and non-government employees significantly affects the level of tax literacy. Moreover, tax literacy level of government employees is found more than that of non-government employees based on various age groups. It can also be said that level of tax literacy is increasing with the age of employees (Bhushan and Medury, 2013).

Table 15: Results showing relationship between age and tax literacy of Non-government employees

Source of Variation	*Sum of Squares*	*df*	*Mean Square*	*F Value*	*Sig.*
Between Age Groups	72.126	2	36.063	3.565	.032
Within Age Groups	981.184	97	10.115		
Total	1053.310	99			

Source: "Author's own findings"

5.2.5. Association between service experience and tax literacy of government, and non-government employees

This section aims to examine the relationship between service experience and tax literacy among government and non-government employees. Table 16 presents the average tax literacy scores across various levels of service experience. The data clearly shows that employees with more years of service have higher tax literacy, while those with less experience have lower tax literacy. Specifically, employees with over 30 years of experience have the highest tax literacy, followed by those

with 20 to 30 years, 10 to 20 years, and those with less than 10 years of service. These findings suggest a positive correlation between service experience and tax literacy for both government and non-government employees. In other words, the more work experience an employee has, the higher their level of tax literacy. To determine whether the differences in average tax literacy scores across various experience levels are statistically significant, hypothesis (H5) is tested using an ANOVA test. Before performing the ANOVA, the assumption of homogeneity of variances is individually checked for both government and non-government employees.

Table 16: Service experience-wise mean tax literacy score of employees

Category	*Government Employees*	*Non-Government Employees*
Below 10 yrs.	16.62 (40)	15.36 (61)
Between 10 and 20 yrs.	17.20 (44)	15.50 (32)
Between 20 and 30 yrs.	18.40 (10)	17.25 (4)
Above 30 yrs.	21.17 (6)	20.33 (3)

Source: "Author's own findings"
Note: Parenthesis indicates %ages.

Levene's test of homogeneity of variances is applied individually for government employees, and non-government employees. Table 17 reveal the results of Levene's test of homogeneity of variances for government employees, and non-government employees respectively. It is evident from the results that Levene's test fulfills the assumption of ANOVA test for both government and non-government employees.

Table 17: Results indicating homogeneity of variances for experience categories of Government employees and Non-Government Employees

	Government Employees	*Non-government employees*
Levene Statistic	2.178	0.172
df1	3	3
df2	96	96
Sig.	.101	.915

Source: "Author's own findings"

The results of ANOVA test are presented in table 18 for government and non-government employees. From the table 18, it can be seen that F value is significant at 5 % significance level for both the government and non-government employees. Thus, it can be concluded that tax literacy depends

upon the service experience of both government and non-government employees.

Table 18: Results showing the relationship between service experience and tax literacy of Government employees and Non-Government Employees

	Government Employees			*Non-Government Employees*		
Source of Variation	*Between Education Groups*	*Within Education Groups*	*Total*	*Between Education Groups*	*Within Education Groups*	*Total*
Sum of Squares	120.343	1121.767	1242.110	81.828	971.482	1053.310
df	3	96	99	3	96	99
Mean Square	40.114			27.276		
F Value	3.43			2.70		
Sig.	.020			.050		

Source: "Author's own findings"

In conclusion, the level of tax literacy among government employees is generally higher than that of non-government employees, particularly when considering their varying levels of service experience. The study finds that work experience significantly impacts tax literacy for both groups. Both government and non-government employees have a solid understanding of basic income tax concepts, such as calculating tax liability, filing returns, and understanding deductions and exemptions. Regarding tax behavior, government employees exhibit more positive behavior compared to non-government employees, especially in areas like legal tax reduction methods, tax management, tax-saving investments, e-filing, and staying informed about tax laws. When it comes to tax attitudes, government employees also display a more positive outlook, particularly in calculating tax liabilities, e-filing, understanding tax laws, and increasing tax knowledge. However, the overall composite tax literacy score, which combines knowledge, behavior, and attitude, is not very high, indicating that both groups lack a full understanding of essential tax concepts. Tax literacy is especially low among women, employees with lower incomes, less education, younger workers, and those with less experience.Overall, most employees, both government and non-government, have an average level of tax literacy across various demographic factors. Government employees, however, tend to be more proficient in handling tax-related matters. The study concludes that there is a need for improved tax literacy initiatives, as demographic factors like gender, income, education, age, and work experience play a significant role in determining tax literacy levels (Mahajan, 2022).

CONCLUSION AND IMPLICATIONS

Tax literacy plays a key role in effective financial planning. By understanding various tax aspects and strategies, individuals can better manage their finances while meeting their tax obligations. Those without formal education in taxation often find it difficult to calculate tax liabilities, file returns, and take advantage of tax-saving deductions and exemptions. Tax literacy encompasses understanding personal taxation concepts and using that knowledge to independently determine tax liabilities and file returns. This study investigates the link between tax literacy and different demographic factors. Data was gathered from primary sources through a structured and pretested questionnaire. The research targeted government and non-government employees from major cities in Punjab, including Amritsar, Jalandhar, Ludhiana, and Chandigarh. A total of 250 employees, with 125 from each sector, were surveyed. The findings reveal that demographic factors such as gender, income, education, age, and work experience have a significant impact on tax literacy levels in both groups. Specifically, tax literacy is lower among women, individuals with lower incomes, less education, younger people, and those with less work experience.

LIMITATIONS OF THE STUDY

This study has several limitations. It is limited to four districts in Punjab—Amritsar, Jalandhar, Ludhiana, and Chandigarh—due to time and resource constraints, and the use of purposive sampling may not fully reflect the broader population. Additionally, the study focuses exclusively on employees, excluding the general population. Future research could improve generalizability by incorporating a larger sample size.

SCOPE FOR FURTHER RESEARCH

Future research could expand the study beyond the four districts in Punjab to cover a broader geographic area, providing more representative insights. It could also include a more diverse sample, such as older adults, women, and students, to better understand tax literacy across different groups. Additionally, conducting comparative analyses between rural and urban populations and exploring other factors that may influence tax literacy levels would offer deeper insights into the topic.

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