



## **Understanding Awareness of Investment Avenues of Investors in North India: An Empirical Study**

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### **Abstract**

Investment awareness plays a vital role in empowering investors to make informed decisions and navigate the complex landscape of financial markets. With the ever-changing economic conditions and the abundance of investment options available, it is essential for investors to stay informed and educated about the various aspects of investing. In this study an attempt has been made to find the awareness level of Investors in North India. To provide a fair representation of participants, a multistage random selection technique was used. Three states—Himachal Pradesh, Punjab, and Uttarakhand—as well as two union territories—Delhi and Chandigarh—were chosen for the study. A total of 381 replies from both teaching and non-teaching staff members working in institutions across North India has been used to perform the final analysis. The data was analysed with the help of descriptive statistics, t-test, and one-way ANOVA. The study concluded that investors in North India have a high level of investment awareness, indicating their active pursuit of knowledge to make informed investment decisions. This has significant implications for various aspects of investment, such as decision-making, risk management, investor protection, and market efficiency. The high investment awareness can be attributed to factors like the region's economic growth, increasing investment opportunities, access to financial education initiatives, and technological advancements that facilitate information access. Informed decision-making based on investment awareness leads to better outcomes and portfolio performance, as investors can align their choices with their goals and manage risks effectively.

**Keywords:** Investment Avenue, Financial Literacy, North India, Financial Market



## **Introduction**

Investment awareness refers to the understanding, knowledge, and consciousness that investors possess about various aspects of investing and financial markets. It encompasses a range of factors, including knowledge about different investment options, risk management, market trends, and the ability to make informed decisions based on thorough analysis and research. Investment awareness involves being aware of the potential risks and rewards associated with different investment vehicles, such as “stocks, bonds, mutual funds, real estate, or commodities”. It includes understanding concepts like diversification, asset allocation, and the impact of inflation on investments (Lokhande, 2015). Furthermore, investment awareness entails staying informed about market trends, economic indicators, and geopolitical events that may influence the performance of investments. This awareness helps investors anticipate and respond to market changes, making adjustments to their portfolios when necessary. Being investment-aware also means understanding one's financial goals, risk tolerance, and time horizon. It involves evaluating one's personal circumstances, such as income, expenses, and future financial needs, to align investment decisions with individual objectives (Bhattacharjee & Singh, 2017).

Investors should be aware of various financial avenues to make informed investment decisions. These avenues include stocks, which offer ownership in companies and potential capital appreciation; bonds, which are debt instruments with associated risks and rewards; mutual funds that pool investments for diversified portfolios; and exchange-traded funds (ETFs) that trade like stocks. Real estate investments require understanding market trends and property risks, while commodities are affected by factors like supply and demand dynamics. Options and futures attract specific complexities and rewards. Retirement accounts, such as IRAs and 401(k)s, require knowledge of contribution limits, tax advantages, and investment choices (Umamaheswari & Kumar, 2014). Alternative investments, like hedge funds and private equity, offer unique characteristics and risks. Lastly, financial planning and advisors play a crucial role in helping investors set goals and create well-diversified portfolios aligned with their needs and risk tolerance. Being aware of these financial avenues empowers investors to make



informed choices and navigate the complexities of the investment landscape effectively (Banumathy, 2016).

Investment awareness plays a vital role in empowering investors to make informed decisions and navigate the complex landscape of financial markets. With the ever-changing economic conditions and the abundance of investment options available, it is essential for investors to stay informed and educated about the various aspects of investing. This introduction aims to shed light on the significance of investment awareness and its impact on investors' decision-making process, supported by credible citations. According to a study conducted by the "Securities and Exchange Commission (SEC)" in 2021, "Investment Awareness and Investor Protection," it was found that investors who possessed a higher level of investment awareness exhibited improved financial outcomes compared to those with limited knowledge. This highlights the importance of investment awareness in achieving investment success and protecting one's financial interests (Matusaka, Ozbas, & Yi, 2021). A research paper published in the Journal of Financial Planning by Matthew, (2018) titled "Gender bias and practice profiles in the selection of a financial adviser" suggests that investors who actively seek out information and stay aware of market trends are more likely to make better investment decisions. The study further emphasizes the positive correlation between investment awareness and portfolio performance, reinforcing the notion that being knowledgeable about investment options is crucial for investors to achieve their financial goals (Ahmed, Barber, & Odean, 2018). In a survey conducted by the "National Endowment for Financial Education (NEFE)" in 2022, it was revealed that a significant number of investors lacked basic investment awareness, such as understanding risk tolerance, diversification, and investment fees. The survey's findings underscore the urgent need for greater investment education to empower individuals to make sound financial choices and protect themselves from potential pitfalls (Lyons, Palmer, Jayaratne, & Scherpf, 2006).

According to a study conducted by PH & Uchil, (2020), investor awareness plays a vital role in informed decision-making and investment outcomes. Their research emphasizes the importance of understanding various investment options, risks, and market conditions for making sound investment choices (Aren & Aydemir, 2015). The "Securities and Exchange Commission



(SEC)” also recognizes the significance of investor awareness. In their report on financial literacy among investors, the SEC highlights that informed investors are better equipped to protect themselves from fraudulent schemes and make investment decisions aligned with their financial goals (Jallan & Ashuri, 2020). Furthermore, the World Bank's report on investor protection and corporate governance stresses the critical role of investor awareness in safeguarding investor interests and maintaining market integrity. It emphasizes the need for regulatory frameworks and transparency to protect investors (World Bank, 2019). A study by Cook, Kieschnick, & Van Ness, (2006) explores the relationship between investor awareness and the long-term performance of initial public offerings (IPOs). Their findings indicate that investor awareness positively influences the efficient pricing of financial assets, leading to improved market efficiency (Cook, Kieschnick, & Van Ness, 2006). Additionally, the “Organization for Economic Cooperation and Development (OECD)” emphasizes the importance of financial literacy and investor awareness in empowering individuals and promoting economic well-being. Their report on improving financial education highlights how studying investor awareness and financial literacy enhances individuals' ability to manage their finances and make informed investment decisions (OECD, 2016).

## **Review of Literature**

Several studies emphasize the importance of financial education in enhancing investors' investment awareness. Lusardi & Mitchell, (2014) argue that financial literacy and education programs positively impact investors' awareness and decision-making abilities, leading to better investment outcomes. Similarly, Chen and Volpe (2002) found that individuals with higher levels of financial knowledge exhibit greater investment awareness and engage in more informed investment decisions. Investor knowledge plays a crucial role in investment awareness. Research suggests that individuals with higher levels of investment knowledge are more likely to be aware of investment options, understand risks, and make informed investment decisions. For instance, Hung, Parker, and Yoong (2009) found that individuals with greater investment knowledge are more aware of investment fees and expenses, leading to improved investment choices. Studies have explored the impact of information sources on investors' investment awareness. Research



by Blake, Rossi, Timmermann, Tonks, & Wermers, (2012) highlighted the role of financial advisors and the media as key sources of information for investors. They found that investors who actively seek information from multiple sources tend to have higher investment awareness and make better investment decisions. Investment awareness has been shown to influence investors' investment behaviour. Research by Grinblatt & Keloharju, (2001) revealed that investors with higher levels of awareness are more likely to diversify their portfolios, leading to improved risk management and potential returns. Additionally, investors with greater awareness are more likely to engage in long-term investment strategies and exhibit lower levels of trading activity (Barber & Odean, 2008). Investor awareness contributes to investor protection by enabling individuals to safeguard their interests and make informed investment choices. Amoah, (2018); emphasized the need for investor education and awareness programs to protect individuals from fraudulent schemes and unethical practices in the investment industry. Regulatory frameworks play a vital role in promoting investment awareness and protecting investors. Van Rooij, Lusardi, & Alessie, (2011) highlighted the importance of regulatory interventions in enhancing investment awareness, particularly in areas such as disclosure requirements, transparency, and consumer protection.

Numerous studies highlight the critical role of investment awareness in guiding investors' decision-making and overall investment success. For instance, a study by Virlics, (2013) found that individual investors with higher investment awareness exhibited better investment performance, primarily through reduced trading activity and improved risk management. Investment awareness has been shown to significantly influence investors' behavior and investment choices. Whereas, Agarwal, Amromin, Ben-David, Chomsisengphet, & Evanoff, (2014) revealed that increased investor awareness is associated with a higher likelihood of diversified portfolios, reduced home bias, and increased usage of low-cost investment products. Investment awareness plays a crucial role in protecting investors from fraud and unethical practices. A study by Mohd Padil, Kasim, Muda, Ismail, & Md Zin, (2022) emphasized that investors with higher investment awareness are more likely to identify potential scams, avoid fraudulent investments, and protect their assets. Investor education programs and initiatives are often recommended to enhance awareness and protect investors' interests. Financial

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education programs have been recognized as effective tools for improving investors' investment awareness. Lusardi & Mitchell, (2014) and Hung, Parker, & Yoong, (2009) underscored the positive impact of “financial literacy and education initiatives” on investors' awareness, decision-making abilities, and long-term financial planning. Investor knowledge and access to reliable information sources are key determinants of investment awareness.

Nguyen, Nguyen, Tran, & Trinh, (2022) found that investors with higher financial knowledge are more likely to seek out diverse sources of information, enabling them to make better-informed investment decisions. The role of digital platforms and social media as emerging information sources is an area of growing interest for researchers. Investment awareness also extends to sustainable investing, with studies highlighting the growing interest in “environmental, social, and governance (ESG) factors” among investors. Research by Stålnacke, (2021) revealed that investors with higher ESG awareness are more likely to incorporate sustainability considerations into their investment decisions, aligning their portfolios with their values and contributing to sustainable development.

## **Statement of Problem**

The purpose of this study is to investigate the level of investment awareness among investors in North India and explore the factors influencing their investment decisions. North India has witnessed significant economic growth and provides increasing number of investment opportunities, yet there is a dearth of comprehensive research on the investment awareness of individuals in this region. Understanding the level of investment awareness among investors in North India is crucial for identifying gaps in knowledge, assessing the effectiveness of financial education initiatives, and designing targeted interventions to enhance investor awareness and protection.

This study aims to address several key research questions. Firstly, it seeks to determine the current level of investment awareness among investors in North India. This assessment will provide insights into the existing knowledge base and help identify areas that require improvement. Secondly, the study aims to identify the key factors influencing investment





decisions in the region. By understanding the factors that drive investment choices, such as risk perception, financial literacy, and access to information, the study can shed light on the underlying determinants of investment behaviour. Furthermore, the study aims to explore the relationship between investment awareness and investment behaviour and outcomes in North India. By examining how investment awareness translates into actual investment decisions and their subsequent outcomes, the study can evaluate the impact of investor knowledge on investment performance and financial well-being. Lastly, the study aims to investigate whether there are significant differences in investment awareness based on demographic factors such as age, gender, education, and income. This analysis will provide valuable insights into potential variations in investment knowledge and behaviour across different demographic groups.

## **Research Objectives**

1. To check the investors investment awareness in North India.
2. To study the difference in the demographic factors and investment awareness of investors.

## **Methodology**

### **Population**

In the scope of this study, the population of interest consists of both teaching and non-teaching staff members employed in universities situated in the northern region of India. This geographical area encompasses five states and four union territories, and according to the UGC listed site, there are a total of 218 universities in North India (Recruitment Inbox, 2019). The final participants for this study will be chosen from among these universities. As 'reported by the National Informatics Centre (2015), there are over 80,000 teachers working in these universities located in Northern India.

### **Sample size and sampling procedure**

This study's major objective is to comprehend how social and economic factors affect the choices made by investors in North India. Data was gathered from both teaching and non-



teaching staff members working at institutions throughout North India in order to compile the relevant information. To provide a fair representation of participants, a multistage random selection technique was used. Three states—Himachal Pradesh, Punjab, and Uttarakhand—as well as two union territories—Delhi and Chandigarh—were chosen for the study based on their Wikipedia literacy percentages for the year 2023. After careful consideration, 381 respondents were deemed eligible for the research out of an original sample of 450. The sample size was chosen in accordance with Krejcie & Morgan's 1970 suggestion, which states that when working with an unknown population, a minimum sample size of 380 should be used to get consistent findings with a 95% confidence level.

## **Data Collection Procedure and Sources**

We received 381 replies from both teaching and non-teaching staff members working in institutions across North India to perform the final analysis. The data was gathered through the use of a standardised questionnaire using a 5-point Likert scale. The questionnaire includes 14 investment avenues i.e. “Interest in saving account, fixed deposit and recurring deposit, insurance policies, real estate, shares (equity, preference), gold/silver, mutual funds/SIP, derivative, interest on post office savings accounts, PPF account, bond/debenture/corporate deposits, ULIP’s, NSC’s, Other govt. securities”. To guarantee a varied spectrum of opinions, we used a combination of online and offline questionnaires to collect data from respondents.

## **Analytical Techniques and Framework**

In our study, we employed a range of powerful analytical tools to extract meaningful insights from the collected data. With the aid of descriptive statistics, t-tests, and one-way ANOVA, we delved deep into the intricacies of our dataset. Firstly, descriptive statistics allowed us to gain a comprehensive understanding of the main characteristics of our data. By employing measures such as mean, median, mode, and standard deviation, we were able to paint a vivid picture of the central tendency, variability, and distribution of our variables. These statistical snapshots provided valuable insights and allowed us to summarize the key features of our dataset in a concise and informative manner. Next, t-tests played a pivotal role in our analysis. These

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powerful statistical tests enabled us to determine if there were any significant differences between the means of two distinct groups. By considering factors such as sample size, means, and standard deviations, we calculated t-values and compared them to critical values determined by the desired level of significance. The outcomes of these tests shed light on the existence of significant differences between the groups, providing vital insights into the impact of various factors under examination. Additionally, we employed one-way ANOVA to delve deeper into our study. This versatile statistical technique facilitated the comparison of means among three or more groups. By assessing both within-group and between-group variances, we calculated F-values to determine if significant differences existed. One-way ANOVA enabled us to discern the effects of different treatment groups or factors on the outcome variable, providing a broader perspective and facilitating more robust conclusions.



## Results and Discussion

### 1 Respondents' Location

The data collection phase of our study involved gathering information from investors in North India. North India comprises 5 States and 3 Union Territories (UTs), and for our study, we selected 3 States and 2 UTs as our target locations. The classification of respondents based on their respective locations is presented in Table 4.1, providing a clear overview of the distribution of participants across the selected States and UTs.

**Table 1 Location-wise Distribution of Respondents:**

<b>Respondents Location</b>			
<b>State</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
Punjab	118	31.0	31.0
UK	79	20.7	51.7
Himachal Pradesh	56	14.7	66.4
Delhi	81	21.3	87.7
Chandigarh	47	12.3	100.0
<b>Total</b>	<b>381</b>	<b>100.0</b>	

Source: Primary Data collected by authors

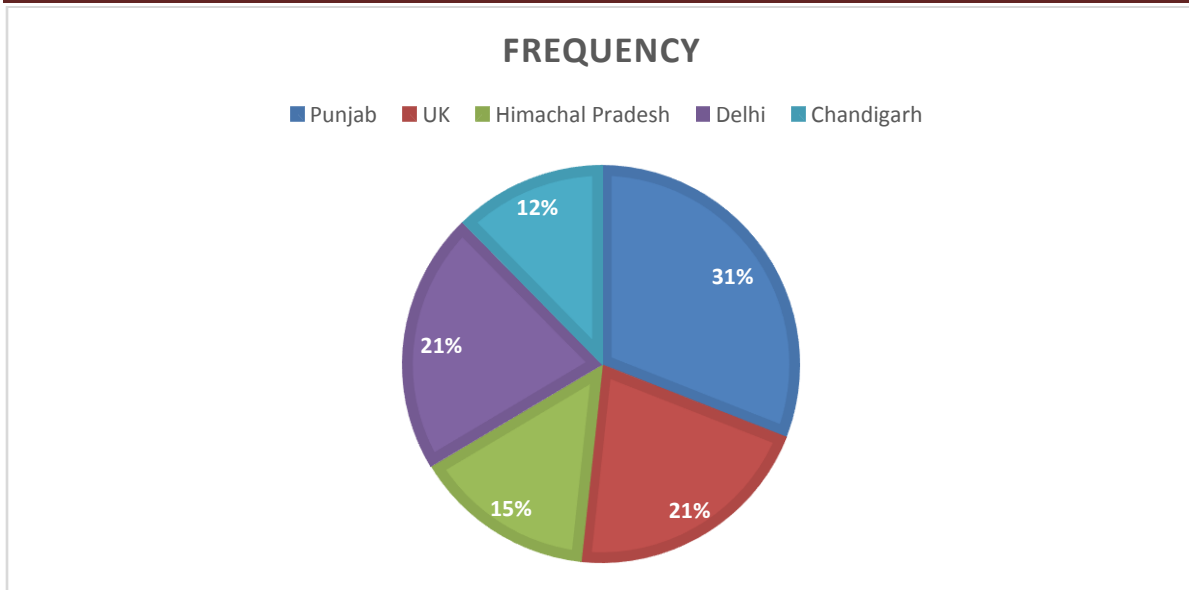


Figure 1: Location wise Distribution of Respondents

The study consisted of 381 investors, as depicted in Table 1. Among them, 118 investors were from Punjab, 79 from Uttarakhand, 56 from Himachal Pradesh, 81 from Delhi, and 47 from Chandigarh. The selection of respondents was based on the number of universities in the respective States or UTs, ensuring a diverse and representative sample.

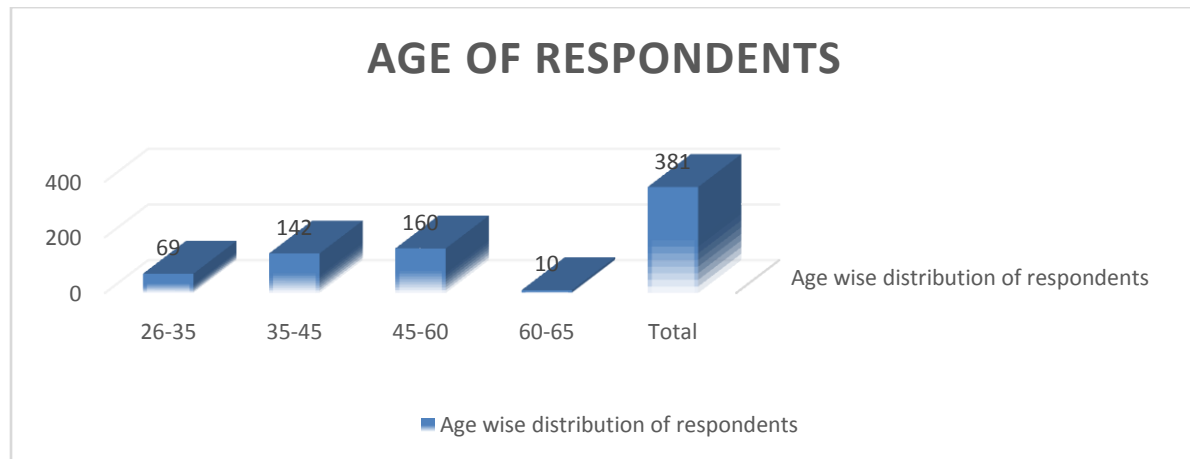
## 2 Age of Respondents

The age of investors plays a significant role in shaping their investment decisions. Table 2 presents the categorization of respondents based on their age. The investors have been divided into four age categories: 26-35, 35-45, 45-60, and 60-65. This classification provides a comprehensive view of the distribution of respondents across different age groups, allowing for a thorough analysis of their investment preferences and behaviours.

**Table 2 Age-wise Distribution of Respondents:**

Age in Years			
Age (Years)	Frequency	Percent	Cumulative Percent
26-35	69	17.8	18.4
35-45	142	37.3	55.4
45-60	160	42.0	97.4
60-65	10	2.6	100.0
<b>Total</b>	<b>381</b>	<b>100.0</b>	

Source: Primary Data collected by authors



**Figure 2:** Age-wise Distribution of Respondents

In Table 2, the distribution of respondents across different age groups is presented. It reveals that 142 respondents belong to the age group of 35-45 years, while 160 respondents fall within the age range of 45-60 years. Furthermore, a smaller number of respondents, specifically 10 individuals, fall into the age group of 60-65 years. Based on these findings, it can be concluded that a majority of the respondents in the study are between the ages of 45-60 years, indicating a concentration of participants within this particular age range.

### 3 Gender of Respondents

In the current study, the researchers categorized the gender of the respondents into two groups: male and female. The summary of the gender-wise data collected by the researchers is as follows:

**Table 3 Gender-wise distribution of respondents:**

Gender of Respondents			
Gender	Frequency	Percent	Cumulative Percent
Male	237	62.2	62.2
Female	144	37.8	100.0
<b>Total</b>	<b>381</b>	<b>100.0</b>	

Source: Primary Data collected by authors

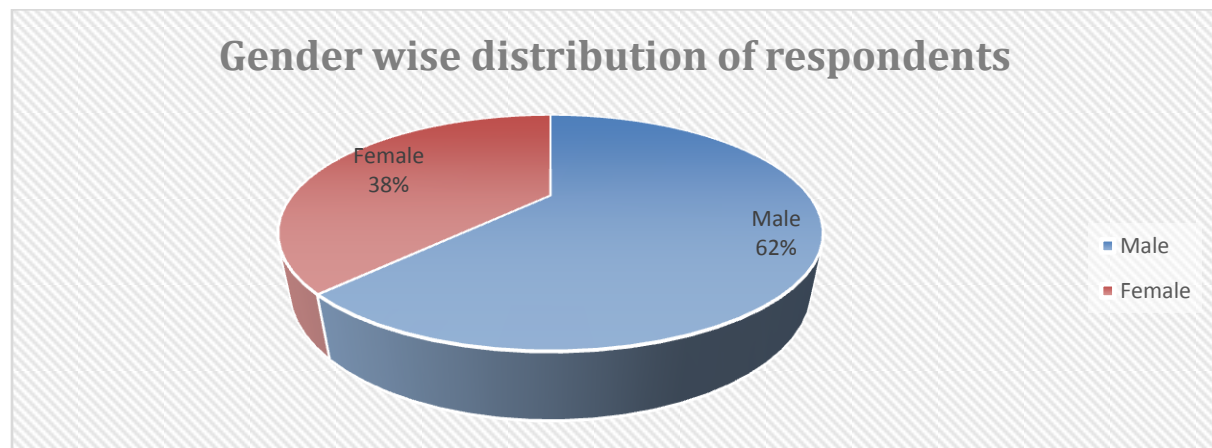


Figure 3: Gender wise distribution of Respondents

Table 3 presents the distribution of respondents based on gender. The data reveals that 62% of the respondents are male, whereas 38% are female. This indicates that a majority of the investor respondents in the collected data are males, with a higher representation compared to females.

## 4 Annual Income of the Respondents

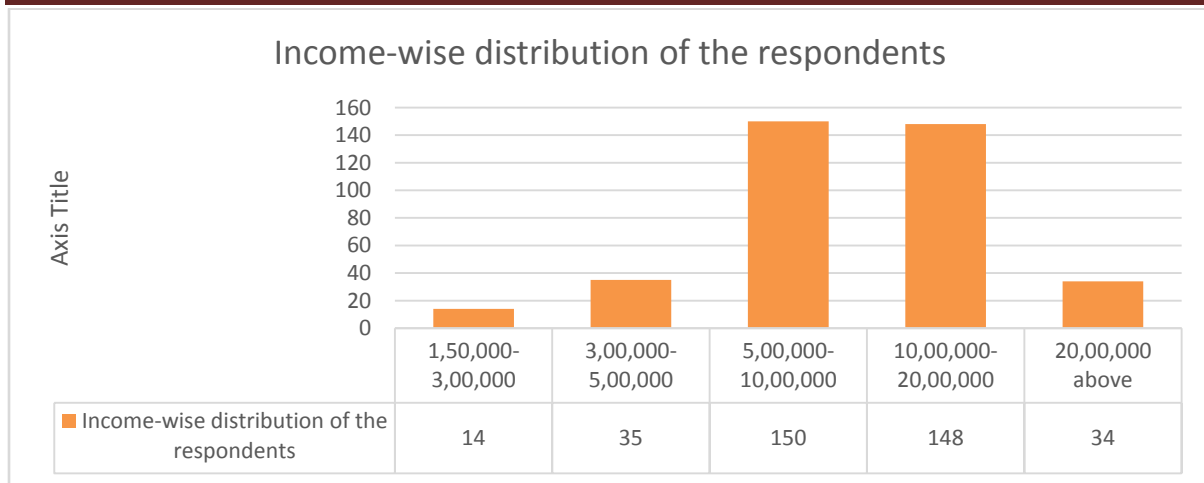
Income plays a crucial role in influencing the investment decisions of investors. To understand this relationship, we classified the annual income of the respondents into six categories. The categorization of income is presented in Table 4, providing an overview of the distribution of respondents across different income brackets. This categorization allows for a comprehensive analysis of how income levels may impact investment preferences and decision-making.

**Table 4 Annual Income wise Distribution of Respondents**

<b>Annual Income of the Respondents</b>			
<b>Annual Income</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
1,50,000-3,00,000	14	3.7	3.7
3,00,000-5,00,000	35	9.2	12.9
5,00,000-10,00,000	150	39.4	52.2
10,00,000-20,00,000	148	38.8	91.1
20,00,000 Above	34	9.0	100.0
<b>Total</b>	<b>381</b>	<b>100.0</b>	

Source: Primary Data





**Figure 4:** Income wise Distribution of the Respondents

Table 4 provides an insightful breakdown of the respondents' annual income. It indicates that 39% of the respondents fall within the income range of 5, 00,000 to 10, 00,000 rupees, while 38% have an annual income between 10, 00,000 and 20, 00,000 rupees. Interestingly, only 3% of respondents report an annual income below 1, 50,000 rupees, whereas 9% of the respondents have an annual income exceeding 20, 00,000 rupees. These figures highlight the varying income levels among the respondents, emphasizing the importance of considering income as a significant factor influencing investment decisions.

## 5 Educational Background of the Respondents

In the survey conducted by the researchers, the educational background of the respondents was categorized into three main groups: Graduate, Post Graduate, and Doctorate. Table 5 displays the classification of respondents based on their respective educational backgrounds, providing a clear overview of the distribution of participants across these categories. This categorization allows for an analysis of how educational qualifications may influence investment decisions and preferences among the respondents.

**Table 5 Education-wise Distribution of Respondents**

<b>Educational Background of Respondents</b>			
<b>Education Background</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
Graduate	6	1.6	1.6
Post Graduate	55	14.4	16.3
Doctorate	320	84.0	100.0
<b>Total</b>	<b>381</b>	<b>100.0</b>	

Source: Primary Data

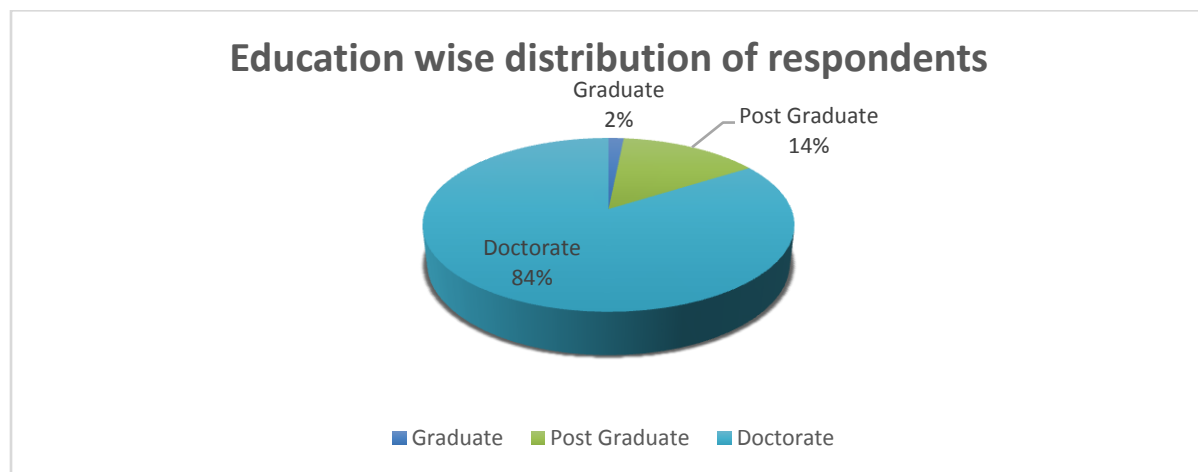


Figure 5: Education wise distribution of the respondents

Among the 381 respondents, 55 individuals hold postgraduate degrees, while a significant majority of 320 respondents possess doctorate degrees. The data from Table 5 indicates that only a small proportion, comprising 2% of the respondents, have graduate degrees. This distribution aligns with the study's target population, which primarily consists of university teachers, explaining the prevalence of respondents with doctorate degrees.

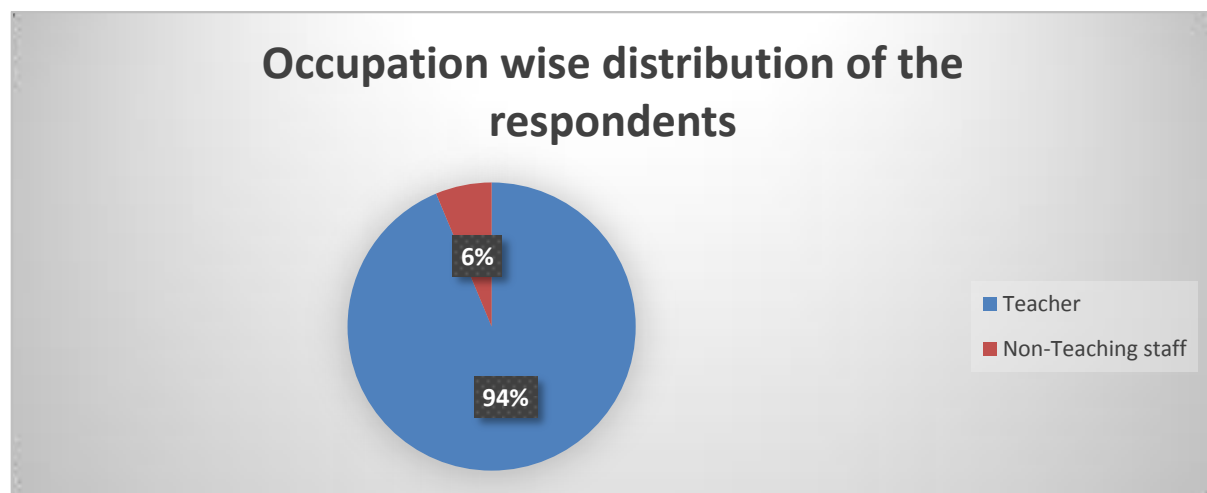
## 6 Occupation/Profession of the Respondents

Table 6 presents the classification of respondents based on their respective professions. The respondents have been divided into two distinct categories: Teaching Staff and Non-Teaching Staff. This categorization provides an organized overview of the distribution of participants based on their professional roles, allowing for a clear understanding of the composition of the respondent pool in terms of their occupational backgrounds.

**Table 6 Occupation/Profession-wise distribution of respondents**

Occupations/Profession			
Profession	Frequency	Percent	Cumulative Percent
Teacher	357	93.7	93.7
Non-Teaching Staff	24	6.3	100.0
<b>Total</b>	<b>381</b>	<b>100.0</b>	

Source: Primary Data collected by authors



**Figure 6:** Occupation wise distribution of the respondents

Table 6 illustrates the composition of the respondents in terms of their professions. It reveals that a significant majority of the respondents, comprising 94%, are teachers, while 6% are employed

as non-teaching staff in Northern Indian universities. This distribution reflects the primary focus of the study, which centres on examining the investment behaviour of university teachers. Consequently, a substantial portion of the data for this study has been collected from teachers within Northern universities, ensuring a targeted and relevant sample for analysis.

### **7 Awareness of Investors Regarding Investment Avenues:**

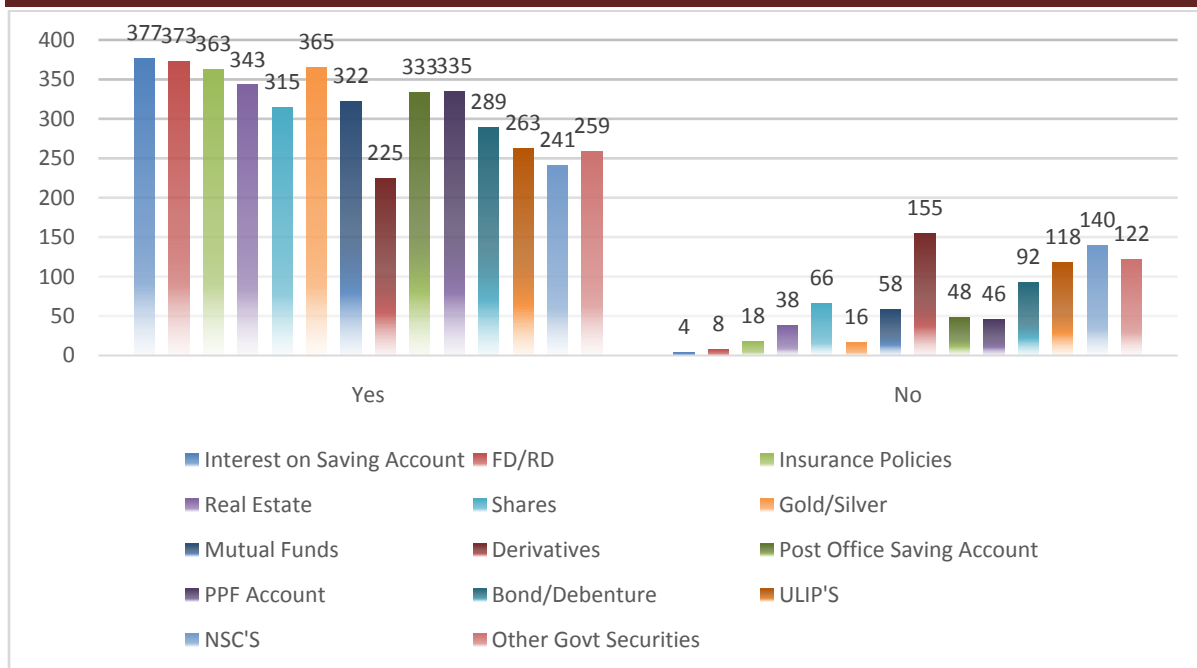
In this particular section, we have diligently collected data from the respondents under study to explore their behavioural aspects of investment decision making, specifically focusing on their awareness of investment avenues. Initially, the researchers posed simple yes or no questions to gauge respondents' awareness of various investment avenues. Subsequently, additional questions were posed to gain deeper insights into their portfolio composition and behavioural choices related to each investment avenue. The findings related to the respondents' investment avenue awareness are concisely summarized and presented in Table 7, providing a comprehensive overview of the awareness levels observed among the participants.

**Table 7 Investment Avenue Awareness**

<b>Variables</b>	<b>Responses</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
Interest in Saving Account	Yes	377	99.0	99.0
	No	4	1.0	100.0
Fixed Deposits and Recurring Deposits	Yes	373	97.9	97.9
	No	8	2.1	100.0
Insurance Policies	Yes	363	90.0	90.0
	No	18	10.0	100.0
Real Estates	Yes	343	95.3	95.3
	No	38	4.7	100.0

Shares (Equity/Preference)	Yes	315	82.7	82.7
	No	66	17.3	100.0
Gold/Silver	Yes	365	95.8	95.8
	No	16	4.2	100.0
Mutual Funds/SIP	Yes	322	84.7	84.7
	No	58	15.2	100.0
Derivatives	Yes	225	59.1	59.1
	No	155	40.9	100.0
Int. on Post Office Savings Accounts	Yes	333	87.4	87.4
	No	48	12.6	100.0
PPF Account	Yes	335	87.9	87.9
	No	46	12.1	100.0
Bond/Debenture/Corporate Deposits	Yes	289	75.9	75.9
	No	92	24.1	100.0
ULIP's	Yes	263	69.0	69.0
	No	118	31.0	100.0
NSC's	Yes	241	69.3	69.3
	No	140	36.7	100.0
Other Govt. Securities	Yes	259	69.8	69.8
	No	122	30.2	100.0

Source: Primary Data collected by authors



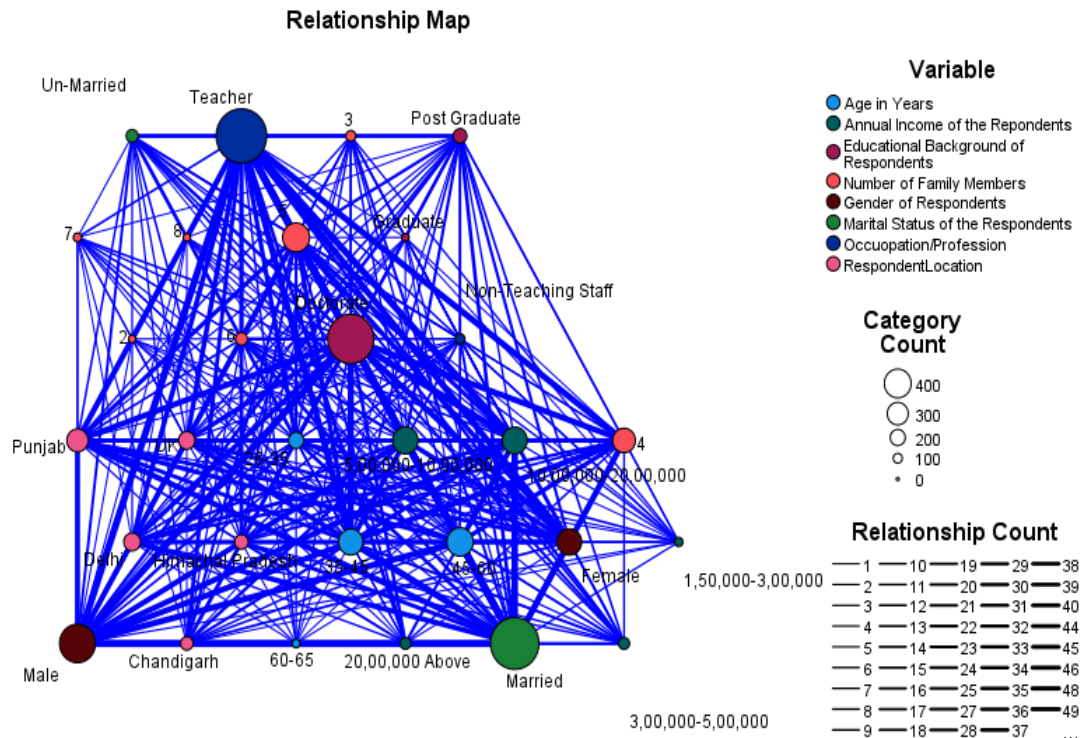
**Figure 7:** Investment Avenue Awareness

Table 7 provides a comprehensive overview of the respondents' awareness of various investment avenues. The findings indicate that a high percentage of respondents are aware of different investment options. Specifically, 99% of the respondents are aware of interest on saving accounts, while 97.9% are aware of fixed deposits and recurring deposits. The majority, 90% of respondents, are aware of insurance policies, with only 10% indicating a lack of knowledge in this area. Regarding specific investment opportunities, 95% of respondents demonstrate understanding and awareness of real estate, while 83% are aware of shares as an investment avenue. However, 17% of respondents remain unaware of shares. Only a small percentage, 15%, are not aware of Mutual Fund/SIP. Furthermore, 58% of investors are aware of derivatives, while 41% are unfamiliar with this investment option. In terms of interest on post office savings, the majority of respondents have awareness, with only 12% lacking knowledge about it. Out of the 381 respondents, 263 are aware of ULIP plans, while 118 are not. Additionally, 69% of the respondents are knowledgeable about NSC's (National Savings Certificates), while 37% are unaware of them. In conclusion, the data from Table 7 highlights that a significant proportion of respondents are aware of the investment avenues mentioned, demonstrating a satisfactory level of awareness across the various investment options surveyed.



## 8: The relationship map between the demographic profiles of the investor

Graph 8 visually represents the relationship maps of the demographic variables among the respondents. In the graph, larger nodes and thicker lines indicate a strong connection or correlation between the variables. Conversely, smaller nodes and thinner lines represent a weaker connection or correlation between the variables. This graphical representation allows for a clear understanding of the relationships between the demographic variables explored in the study, offering insights into the interplay and potential dependencies among these variables.



Graph 8: Relationship maps between the demographic variables of the respondents

From analysing Graph 8, several key observations can be made. Firstly, it is evident that a significant portion of teachers possess doctorate degrees, indicating a higher level of educational attainment within this professional group. Additionally, these teachers predominantly fall within an income range of 1,50,000 to 2,00,000 rupees, aligning with their educational qualifications and professional status. Furthermore, the graph illustrates that a majority of these teachers are male investors. In terms of postgraduates, the graph indicates that they tend to have around 5 family members



and are typically married. This suggests a correlation between postgraduate education, family size, and marital status. Focusing on females, the graph reveals that they mostly earn an income ranging from 3 to 5 lakhs and fall within the age category of 35-45 years. This connection between income, age, and gender provides insights into the financial landscape and demographics of female investors. Lastly, for non-teaching staff, the graph highlights that they primarily lie within the age category of 18-25 years and have 2 or 3 family members. This suggests a correlation between age, family size, and occupation among non-teaching staff members. In summary, Graph 8 showcases various relationships and patterns within the demographic variables. These insights help paint a clearer picture of the characteristics and interconnections among different demographic groups, aiding in understanding the dynamics of the study population.

### **9: One Way ANOVA between Annual Income of respondents and their overall awareness level**

Table 9 presents the results of the one-way ANOVA conducted to examine the relationship between annual income and the overall awareness level of the respondents. The purpose of this analysis is to determine whether there are statistically significant differences in the means of the income groups. In addition, the one-way ANOVA assesses whether the variances among the income groups are equal or not, ensuring the validity of the statistical test. Table 10 displays the homogeneity of variance among the groups, providing insights into the equality of variances across the income groups. This information is crucial for interpreting the results of the ANOVA accurately. Furthermore, Table 10 presents the ANOVA results for the relationship between income and the awareness level of the respondents. This analysis evaluates whether there are significant differences in the awareness levels among the income groups. Additionally, the post hoc results for the groups are also included in Table 10, offering a detailed examination of the specific differences between pairs of income groups. These post hoc tests provide further insights into the patterns and distinctions among the various income groups in relation to the awareness level. In summary, Table 9 and Table 10 provide a comprehensive understanding of the one-way ANOVA results, including information on the homogeneity of variance, the ANOVA findings,

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and the post hoc results for the income and awareness level of the respondents. These tables facilitate the interpretation of the statistical analysis and contribute to the overall findings of the study. The null hypothesis of the researcher is as follows:

**H0:** There is no significant difference among the group's means.

**H1:** There is a significant difference among the group's means.

**Table 9: Homogeneity of variances between income and awareness level of respondents**

Tests of Homogeneity of Variances					
		Levene			
		Statistic	df1	df2	Sig.
overall_awareness_average	Based on Mean	2.120	4	376	.078
	Based on Median	1.784	4	376	.131
	Based on Median and with adjusted df	1.784	4	335.895	.132
	Based on trimmed mean	2.089	4	376	.082

Source: Primary data

Based on the results presented in Table 9, the p-value associated with Levene's statistics is observed to be 0.06. As this value exceeds the conventional significance level of 0.05, the result is considered not statistically significant. Consequently, the assumption of homogeneity of variance can be deemed as met, indicating that the data exhibits relatively equal variances across the groups. With this assumption satisfied, the ANOVA test can be considered robust and reliable for further analysis.

**Table 10: ANOVA table results**

ANOVA					
overall_awareness_average					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.275	4	.069	2.200	.068
Within Groups	11.755	376	.031		
Total	12.031	380			

Source: Primary Data collected by authors

Based on the information provided in Table 10, it is evident that the F-statistic value is calculated as 3.167, with a corresponding p-value of 0.008. Comparing this p-value to the standard significance level of 0.05, it falls below the threshold. Consequently, the null hypothesis, which assumes no significant difference between the group means, cannot be accepted. Therefore, based on the statistical evidence, the alternative hypothesis of the study is deemed to be true. This indicates that a significant difference exists among the means of the groups under investigation. The findings suggest that there are notable variations or disparities in the variable being analysed across the different groups.

**Post Hoc Test**

In order to determine if there are significant differences among the groups and identify which specific group means differ from one another, a post hoc test was conducted by the researcher. The purpose of the post hoc test is to provide insight into which group means exhibit statistically significant distinctions compared to the means of other groups. This analysis allows for a more detailed understanding of the specific group differences and helps to identify the specific groups that contribute to the observed significant differences in the overall analysis.

**Homogenous Subsets**

**Table 11: Post Hoc Results**

<b>overall_awareness_average</b>			
TukeyB <sup>a,b</sup>			
		Subset for alpha = 0.05	
Annual Income of the Respondents	N	1	2
1,50,000-3,00,000	14	3.9614	
3,00,000-5,00,000	35	3.9934	3.9934
5,00,000-10,00,000	150	4.0541	4.0541
10,00,000-20,00,000	148	4.0571	4.0571
20,00,000 above	34		4.0857
Sig.		0.158	0.188
Means for groups in homogeneous subsets are displayed.			
a. Uses Harmonic Mean Sample Size = 11.555.			
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.			

Source: Primary Data

Table 11 presents the results of the analysis, indicating the presence of two distinct groups in the study, labelled as IG1 and IG2. The table reveals that the mean of IG1 is found to be significantly different from the means of IG2, IG4, IG5, and IG6. This finding provides support for accepting the alternative hypothesis proposed in the study. Based on these results, it can be concluded that there are meaningful differences between the means of the various groups under investigation, reinforcing the study's alternate hypothesis. The overall conclusion of the groups:



IG1≠IG2=IG3=IG4=IG5=IG6≠IG1

**Here,** IG1= Below-1,50,000, IG2= 1,50,000-3,00,000, IG3=3,00,000-5,00,000, IG4=5,00,000-10,00,000, IG5=10,00,000-20,00,000 and IG6=20,00,000 Above

IG= Income Group

### **10:One-Way ANOVA to check the difference in the awareness level of respondents for Investment Avenue across different education levels of respondents**

The researcher utilized the One-Way ANOVA test, specifically the Welch test, in order to examine the significant differences among the education groups of the respondents. This parametric test is suitable for comparing multiple independent samples with equal or different sample sizes. Given that the assumption of homogeneity of variance was violated in this study, the Welch test was employed alongside the One-Way ANOVA. The objective of this analysis was to explore the variations in awareness levels of respondents regarding investment avenues across different education levels. The respondents' education level was categorized into three groups: Graduate, Post Graduate, and Doctorate. The researcher evaluated the awareness of these respondents for a total of 12 investment avenues. To investigate the disparities in awareness levels based on education, the researcher employed the Welch test in conjunction with the One-Way ANOVA. This choice was made due to the violation of the assumption of homogeneity of variance within the study. By running this statistical test, the researcher aimed to ascertain any significant differences that exist among the education groups in terms of their awareness levels. In summary, the researcher adopted the Welch test with the One-Way ANOVA to examine the distinctions in awareness levels among respondents with different education backgrounds. This decision was made due to the violation of the homogeneity of variance assumption, and the analysis aimed to assess the disparities in awareness across the various education groups.



**H0:** There is no significant difference in the awareness levels of respondents across their different levels of education.

**H1:** There is a significant difference in the awareness levels of respondents across their different levels of education.

The mean rank score of the respondents between their awareness level and their education level is shown in Table 12.

**Table 12: One-Way ANOVA between the awareness level and education level of respondents**

Descriptive						
		N	Mean	Std. Deviation	f-statistic	p-value
SA	Graduate	6	4.4286	.09035	1.388	.251
	Post Graduate	55	4.1818	.44028		
	Doctorate	320	4.1710	.36694		
	Total	381	4.1766	.37645		
Shares	Graduate	6	4.0000	.50621	2.012	.135
	Post Graduate	55	3.9295	.67904		
	Doctorate	320	4.0773	.47454		
	Total	381	4.0548	.51057		
Mutual Fund	Graduate	6	3.3333	.49211	11.522	<.001
	Post Graduate	55	3.9065	.55887		
	Doctorate	320	4.1174	.47217		



	Total	381	4.0746	.49904		
Post Office Saving	Graduate	6	3.8958	.50878	.944	.390
	Post Graduate	55	4.0614	.45125		
	Doctorate	320	4.1309	.53968		
	Total	381	4.1171	.52747		
NSC	Graduate	6	3.8333	.57155	11.090	<.001
	Post Graduate	55	3.7200	.76459		
	Doctorate	320	4.0888	.49965		
	Total	381	4.0315	.56069		
PPF_EPF	Graduate	6	4.1042	.14613	1.947	.144
	Post Graduate	55	3.9568	.57344		
	Doctorate	320	4.1188	.56448		
	Total	381	4.0951	.56368		
Insurance Policies	Graduate	6	3.6667	.91059	.682	.506
	Post Graduate	55	3.8523	.80259		
	Doctorate	320	3.9480	.78621		
	Total	381	3.9298	.78968		
FD_RD	Graduate	6	4.0833	.78129	.314	.731
	Post Graduate	55	3.9045	.66752		



	Doctorate	320	3.9332	.50311		
	Total	381	3.9314	.53320		
Real Estate	Graduate	6	4.2778	.38968	1.146	.319
	Post Graduate	55	4.0394	.74187		
	Doctorate	320	4.1563	.54258		
	Total	381	4.1413	.57387		
Gold Silver	Graduate	6	4.1875	.18957	3.338	.037
	Post Graduate	55	3.8955	.63954		
	Doctorate	320	4.0895	.51043		
	Total	381	4.0630	.53123		
Bond Debenture	Graduate	6	4.0714	.07825	.090	.914
	Post Graduate	55	3.9532	.64889		
	Doctorate	320	3.9634	.65250		
	Total	381	3.9636	.64616		
ULIP	Graduate	6	3.3000	1.31909	5.615	.004
	Post Graduate	55	4.1964	.69761		
	Doctorate	320	3.9919	.64971		
	Total	381	4.0105	.67800		

Source: Primary Data collected by authors



The output of the One-Way ANOVA in Table 12 presents the results of the analysis investigating the relationship between education levels and awareness of investment avenues. The findings indicate the following: Regarding the awareness of saving accounts, the F statistic is 1.388 with a p-value of 0.251, suggesting that there is no significant difference in awareness across different education levels. For shares, the F statistic is 2.012 with a p-value of 0.135, indicating no significant difference in awareness levels among investors of different education levels. However, the analysis reveals a significant difference in awareness levels for mutual funds, as evidenced by the F statistic of 11.522 and a p-value of 0.001. Similarly, there is no significant difference in awareness of post office saving accounts across education levels, with an F statistic of 0.944 and a p-value of 0.390. In contrast, the awareness of National Saving Certificates (NSC) shows a significant difference among respondents of different education levels, supported by an F statistic of 11.090 and a p-value of 0.001. The analysis also indicates no significant difference in awareness levels for insurance policies, fixed deposits (FD), and real estate, as their F statistics (0.682, 0.314, and 1.146, respectively) yield p-values above the standard significance level. However, gold/silver awareness displays a significant difference, with an F statistic of 3.338 and a p-value of 0.037. The awareness of Unit Linked Insurance Plans (ULIP) also exhibits a significant difference across education levels, as reflected by an F statistic of 5.615 and a p-value of 0.004. In summary, the study demonstrates that investors generally possess high levels of awareness for most investment avenues. This finding may be attributed to the majority of investors being university working staff with a high literacy rate. As a result, no significant difference in awareness levels was found among respondents of different education levels for the majority of investment avenues.

### **Homogenous Subsets**

The homogenous subsets display groups of respondents who share the same level of awareness for the variables under consideration.

## Post Hoc Tests

The table below presents the results of the post hoc test, which identifies groups of respondents with similar levels of awareness. The post hoc test is conducted following the One-Way ANOVA to further explore the significant differences among respondent groups. Table 13 and 14 display the output for the post hoc test, providing additional insights into the specific groups that exhibit varying levels of awareness.

**Table 13: Post Hoc output for Mutual Funds**

Mutual Fund				
	Educational Background of Respondents	N	Subset for alpha = 0.05	
			1	2
TukeyHSD <sup>a,b</sup>	Graduate	6	3.3333	
	Post Graduate	55		3.9065
	Doctorate	320		4.1174
	Sig.		1.000	.438
Means for groups in homogeneous subsets are displayed.				
a. Uses Harmonic Mean Sample Size = 15.960.				
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.				

Source: Primary Data

Table 13 displays the output of the Post Hoc test conducted for Mutual Funds. The table consists of two groups, labelled as 1 and 2, representing the homogeneous responses of respondents regarding their awareness of mutual funds across different education levels. Upon examination

of the table, it is evident that the mean responses of graduate respondents are not equal to the mean responses of postgraduate and doctorate respondents.

**Table 14: Post Hoc output for ULIP**

<b>ULIP</b>				
	Educational Background of Respondents	N	Subset for alpha = 0.05	
			1	2
TukeyHSD <sup>a,b</sup>	Graduate	6	3.3000	
	Doctorate	320		3.9919
	Post Graduate	55		4.1964
	Sig.		1.000	.664
Means for groups in homogeneous subsets are displayed.				
a. Uses Harmonic Mean Sample Size = 15.960.				
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.				

Source: Primary Data

Table 14 presents the comparison of average responses between graduate respondents and those with postgraduate and doctorate degrees. The mean values for graduate respondents' responses are listed in Group 1, while the mean values for postgraduate and doctorate respondents' responses are displayed in Group 2. It is evident from the table that the mean responses of graduate respondents differ from the mean responses of postgraduate and doctorate respondents.

## **11: Independent sample t-test to check the difference in the awareness level of respondents for Investment Avenue across their different Occupation levels:**

In this section, the researcher aimed to examine the disparity in the awareness levels of respondents based on their occupation. The respondents' occupations were categorized into two groups: teaching and non-teaching. The occupation served as the independent variable, while investor awareness was the dependent variable. To determine the variance in awareness levels across different occupation levels, an independent sample t-test was conducted by the researcher. The following hypotheses were formulated to assess the disparity in respondent awareness levels for investment avenues based on their occupation.

**H0:** There is no significant difference in the awareness level of respondents across their different age groups.

**H1:** There is a significant difference in the awareness level of respondents across their different occupation levels.

**Table 15: Mean rank score between the awareness level of respondents across their different occupation levels**

<b>Group Statistics</b>						
	<b>Occupation/Profession</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>F-statistic</b>	<b>p-value</b>
SA	Teacher	357	4.1729	.37882	0.135	0.713
	Non-Teaching Staff	24	4.2321	.34175		
Shares	Teacher	357	4.0452	.51207	0.780	0.378
	Non-Teaching Staff	24	4.1979	.47479		
Mutual Fund	Teacher	357	4.0900	.48912	4.389	0.037
	Non-Teaching Staff	24	3.8452	.59414		
Post Office	Teacher	357	4.1127	.54113	3.604	0.058



Saving	Non-Teaching Staff	24	4.1823	.24445		
NSC	Teacher	357	4.0426	.55098	1.311	2.53
	Non-Teaching Staff	24	3.8667	.68186		
PPF_EPF	Teacher	357	4.0966	.56037	0.010	0.919
	Non-Teaching Staff	24	4.0729	.62328		
Insurance Policies	Teacher	357	3.9548	.76312	10.622	0.001
	Non-Teaching Staff	24	3.5573	1.06512		
FD_RD	Teacher	357	3.9317	.53093	0.381	0.538
	Non-Teaching Staff	24	3.9271	.57804		
Real Estate	Teacher	357	4.1368	.58156	1.735	0.189
	Non-Teaching Staff	24	4.2083	.44843		
Gold Silver	Teacher	357	4.0690	.52968	0.000	0.989
	Non-Teaching Staff	24	3.9740	.55778		
Bond Debenture	Teacher	357	3.9736	.64663	0.003	0.953
	Non-Teaching Staff	24	3.8155	.63397		
ULIP	Teacher	357	3.9950	.66694	0.055	0.814
	Non-Teaching Staff	24	4.2417	.80645		

Source: Primary Data

Table 15 displays the results of the independent sample t-test conducted to investigate the discrepancy in awareness levels among respondents based on their occupation. The findings can be summarized as follows: The analysis of interest on saving account reveals an F statistic of 0.135 with a p-value of 0.713, exceeding the standard significance level of 0.05. Consequently, the alternative hypothesis suggesting a significant difference in awareness levels across occupation levels is not supported. However, for mutual funds, interest on post office savings accounts, and insurance policies, the corresponding p-values are below 0.05, indicating a significant difference in awareness levels across occupation categories. On the other hand, the p-



values for shares, NSC, PPF, FD, real estate, gold, and ULIP are above the standard threshold of 0.05. This suggests that investors, irrespective of their occupation, exhibit comparable levels of awareness for these investment avenues. Furthermore, the average value of respondent responses exceeds 3, indicating a high overall awareness level among all investors, regardless of whether they are teachers or non-teaching staff. This may be attributed to the respondents' elevated literacy level, which contributes to their general awareness of investment opportunities.

## **Discussion**

In this study, we examined the level of investment awareness among investors in North India and it highlights implications for informed investment decision-making. The findings reveal that a significant proportion of investors in North India demonstrate a high level of investment awareness. This suggests that individuals in the region are actively seeking knowledge and information to make informed investment choices. The high investment awareness among investors in North India can be attributed to various factors. Firstly, the region has witnessed substantial economic growth and increasing investment opportunities. This economic progress has likely created a favourable environment for investors to engage in the financial markets and develop an understanding of different investment avenues. Another contributing factor to the high investment awareness is the availability of financial education initiatives and resources. Government and regulatory authorities in North India have recognized the importance of investor education and have implemented various programs to enhance financial literacy. These initiatives have played a crucial role in equipping investors with the necessary knowledge and skills to navigate the complex world of investments. Furthermore, advancements in technology and the widespread use of the internet have significantly improved access to information for investors in North India. Online platforms, financial websites, and mobile applications provide investors with real-time market updates, research reports, and educational materials, empowering them to stay informed about investment opportunities and market trends. The implications of high investment awareness among investors in North India are noteworthy. Firstly, informed investment decision-making can lead to better investment outcomes and improved portfolio performance. Investors who possess a deep understanding of investment options, risks, and



market conditions are more likely to make sound investment choices aligned with their financial goals and risk tolerance. Moreover, high investment awareness promotes risk management among investors. Knowledge about potential risks associated with different investment avenues allows investors to assess and mitigate those risks effectively. They can avoid excessive exposure to a single asset class, diversify their portfolios, and adopt risk management strategies that align with their investment objectives. Additionally, high investment awareness contributes to investor protection. Investors who are well-informed are better equipped to protect themselves from fraudulent schemes and unethical practices. They understand their rights, responsibilities, and the mechanisms available for dispute resolution. This knowledge enables them to make informed decisions and safeguard their interests in the financial markets.

The findings also suggest that the high investment awareness among investors in North India has the potential to enhance market efficiency. Informed investors who possess knowledge about market trends, company fundamentals, and economic indicators contribute to the efficient pricing of financial assets. This, in turn, improves the overall functioning of financial markets and facilitates the allocation of capital to its most productive uses. Despite the positive aspects, it is important to note that there may still be variations in investment awareness among different demographic groups in North India. Factors such as age, gender, education, and income has also an influence on the level of investment awareness and behaviour.

## **Conclusion**

The study findings reveal that investors in North India have a high level of investment awareness, indicating their active pursuit of knowledge to make informed investment decisions. This has significant implications for various aspects of investment, such as decision-making, risk management, investor protection, and market efficiency. The high investment awareness can be attributed to factors like the region's economic growth, increasing investment opportunities, access to financial education initiatives, and technological advancements that facilitate information access. Informed decision-making based on investment awareness leads to better outcomes and portfolio performance, as investors can align their choices with their goals and



manage risks effectively. Moreover, well-informed investors are better equipped to protect themselves from fraudulent practices, and their presence contributes to market efficiency by improving the pricing of financial assets. While there may be variations in awareness among different demographic groups, efforts to enhance financial literacy and provide tailored investor education are essential. The study emphasizes the need for ongoing initiatives to promote investment awareness, empower investors, and foster a prosperous investment landscape in North India.

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