

# Impact Factor- 5.085 A DEMOGRAPHIC ANALYSIS OF INVESTORS BEHAVIOR TOWARDS DERIVATIVESINSTRUMENTS AT HYDERABAD CITY OF TELANGANA STATE

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Dr. B. Anitha Kumar<sup>1</sup>, Miss V. Amareswari<sup>2</sup>

<sup>1</sup>Sr. Professor, Dept of management SKIM, S.K. University, Anantapur <sup>2</sup>Research scholar, Dept of management SKIM, S.K. University, Anantapur

#### ABSTRACT

The study of investors' behavior towards derivative instruments has gained substantial attention in financial research due to the complexities and potential benefits associated with these financial tools. Derivatives, such as options, futures, swaps, and forwards, are financial instruments whose value is derived from underlying assets like stocks, bonds, commodities, or market indices. They are widely used for hedging risk, speculation, and arbitrage, making them integral to modern financial markets. The present study aim is to measure the investors awareness towards various derivatives instruments and their investment intention. For this purpose, the study adopted non – probability sampling method and convenient sampling technique. The researcher administered a structured questionnaire (Google forms) to sample questionnaires, 38 are excluded due to non-response and invalid (half – filled) responses. The final sample consists of 172 and analyzed by using frequency method, descriptive statistics, correlation, Anova – one way test. The Anova – one way test results indicates that demographic factors such as occupation, educational qualification, marital status, and annual income generally have significant effects on investment intentions and behaviors. Age, however, appears to have a limited impact, except on factors influencing investment decisions. The  $\chi 2$  results shows that educational qualification and marital status are consistently significant factors affecting various aspects of investors' behavior, including awareness, confidence, and risk tolerance. Age shows a significant impact only on awareness of derivatives.

Keywords: Awareness on Derivatives instruments, Risk tolerance level, Investment Intention, Demographic Characteristics.

### I. INTRODUCTION

Investment behaviour, particularly in complex financial instruments such as derivatives, is influenced by a variety of factors, including demographic characteristics. Understanding these influences is crucial for financial institutions, policymakers, and educators aiming to improve financial literacy and create targeted investment strategies. This research paper delves into the demographic determinants of investors' behaviour towards derivatives instruments, specifically examining how age, occupation, educational qualification, marital status, and annual income affect awareness, decision-making confidence, and risk tolerance.

Derivatives, encompassing options, futures, and other financial contracts, have become increasingly popular due to their potential for high returns and risk management capabilities. However, their complexity requires a thorough understanding and strategic approach, which varies significantly among different demographic groups. Previous studies have highlighted that demographic factors such as age and education play a significant role in shaping financial knowledge and investment preferences. Yet, there is a paucity of comprehensive analysis focusing specifically on derivatives. During the last decade, the global derivatives market has seen exponential growth over the past few decades, underscoring their significance in risk management and investment strategies.

According to Hull (2017), derivatives provide investors with the flexibility to hedge against potential losses and leverage positions to maximize returns. This flexibility, however, comes with increased complexity and risk, necessitating a deep understanding of market dynamics and instruments. Thus, investors behaviour plays vital role in derivatives trading. Therefore, it is important to understand the behavioural aspects of investors towards investment in derivatives instruments. Behavioural finance provides a framework for understanding how psychological factors influence investors' decisions and market outcomes. Research by Kahneman and Tversky (1979) introduced the concept of prospect theory, explaining how investors' risk tolerance and decision-making processes are impacted by cognitive biases and emotions. These *INTERNATIONAL JOURNAL OF ENGINEERING SCIENCES & MANAGEMENT* 



# ISSN 2277 – 5528 Impact Factor- 5.085

behavioural aspects are particularly relevant in the context of derivatives trading, where high leverage and volatility can amplify both gains and losses.

This study employs both ANOVA and chi-square tests to analyze the influence of demographic variables on various aspects of investors' behaviour towards derivatives. By investigating factors such as awareness, confidence in decision-making, and risk tolerance, this research aims to provide insights into how demographic characteristics shape investment strategies and risk perceptions. These findings are expected to contribute to the development of more effective financial education

# **II. REVIEW OF LITERATURE**

The behaviour of Indian investors towards derivatives investments is influenced by their awareness, risk appetite, and investment intentions. Limited awareness and high perceived risk are significant barriers to participation, especially among retail and women investors. However, education, financial literacy programs, and the support of financial advisors can mitigate these barriers. Understanding these behavioural aspects is essential for developing strategies to increase participation and optimize the benefits of derivatives trading for investors in India. By integrating insights from various studies, this literature review highlights the multifaceted nature of investor behaviour towards derivatives and underscores the importance of targeted interventions to enhance market participation and investor confidence.

### **Gender Differences in Investment Behaviour**

Gender differences in investment behaviour have been widely documented, with studies suggesting that men and women exhibit distinct attitudes towards risk and investment strategies. Barber and Odean (2001) found that men are generally more overconfident than women, leading to higher trading volumes and risk-taking. In contrast, women tend to adopt more cautious and calculated approaches to investment, which can influence their participation and performance in derivatives markets.

#### Women Investors in Derivatives Market

Despite the growing participation of women in financial markets, their involvement in derivatives trading remains relatively low. This trend can be attributed to various factors, including lower risk tolerance, limited financial literacy, and access to resources. Powell and Ansic (1997) observed that women are generally more risk-averse than men, which may deter them from engaging in the high- risk derivatives market. However, initiatives aimed at improving financial education and providing tailored support can enhance women's participation in this segment.

### Awareness of Derivatives Investments

Awareness of derivatives is a fundamental factor influencing investor participation. Studies indicate that awareness levels among Indian investors are generally low, particularly among retail investors. Sehgal and Gupta (2012) highlighted that a significant portion of individual investors lack adequate knowledge about derivatives, which serves as a major barrier to entry. This lack of awareness is more pronounced among women and less financially educated groups, indicating a need for targeted educational initiatives.

Higher educational qualifications, especially in finance, significantly correlate with better awareness and understanding of derivatives. Kumar (2013) emphasized that investors with formal education in financial markets are more likely to participate in derivatives trading. Financial literacy programs have been shown to improve awareness and engagement, particularly among women, helping bridge the knowledge gap.

### **Risk Appetite Behavior**

Risk appetite is a critical determinant of investment in derivatives, given the high leverage and potential volatility associated with these instruments. Mehta and Aggarwal (2015) found that Indian investors generally exhibit risk-averse behavior, preferring safer investment options over derivatives.

This risk aversion is particularly strong among women and older investors, who prioritize stability and wealth preservation.

Despite the overall risk aversion, investors with higher risk tolerance or those seeking to hedge their portfolios find INTERNATIONAL JOURNAL OF ENGINEERING SCIENCES & MANAGEMENT



# ISSN 2277 – 5528 Impact Factor- 5.085

derivatives appealing. Mittal and Vyas (2008) suggest that experienced investors often use derivatives to manage and mitigate risks associated with their primary investments. These investors typically have a deeper understanding of market dynamics and the strategic use of derivatives for risk management.

Gender differences play a significant role in risk appetite behaviour. Barber and Odean (2001) found that men are generally more overconfident and willing to take risks in derivatives trading compared to women, who tend to be more cautious and calculated. Powell and Ansic (1997) observed that women's risk-averse nature often deters them from participating in the high-risk derivatives market, although targeted financial education can help mitigate this trend.

#### **Investment Intention**

Investment intention towards derivatives is shaped by several factors, including past experiences, perceived knowledge, and the influence of financial advisors. Pati and Shome (2011) found that positive past experiences and higher perceived knowledge significantly influence investors' intentions to trade in derivatives. Investors who view derivatives as complex but potentially rewarding are more inclined to invest if they feel confident in their understanding and ability to manage risks.

Financial advisors play a pivotal role in shaping investment intentions. Rao and Mishra (2011) highlighted that investors who consult financial advisors are more likely to invest in derivatives, as advisors provide the necessary expertise and confidence. Advisors help demystify the products and offer tailored advice that aligns with the investor's risk profile and financial goals.

The regulatory environment also impacts investment intention. Ghosh (2010) argued that robust regulatory frameworks and investor protection measures increase confidence in derivatives markets, thereby enhancing investment intentions. Clarity in regulations and the availability of investor education programs are crucial for fostering a positive investment climate.

### **Demographic Influences on Investment Behavior**

Demographic factors such as age, gender, educational background, and income levels significantly influence investment behaviour towards derivatives.

- Age: Younger investors (18-35 years) are typically more willing to engage in futures and options trading due to higher risk tolerance and a longer investment horizon (Kumari & Saravanaraj, 2020). Middle-aged investors (36-55 years) often use derivatives for hedging purposes, balancing risk and security (Chandra & Kumar, 2012). Older investors (55+ years) are generally more risk-averse and less likely to engage in derivatives unless they have significant investment experience (Lusardi & Mitchell, 2011).
- Gender: Men tend to dominate the derivatives market, displaying higher risk tolerance and confidence in trading futures and options (Barber & Odean, 2001). Women show increasing participation, particularly among younger and more financially educated demographics, though they typically approach derivatives with a more cautious and risk-averse mindset (Powell & Ansic, 1997).
- Educational Background: Investors with higher education, particularly in finance, are more likely to participate in derivatives trading (Kumar, 2013). Financial literacy enhances understanding and confidence in dealing with complex instruments like futures and options (Sehgal & Gupta, 2012).
- Income Levels: Investors with higher disposable income are more likely to invest in futures and options due to their ability to absorb potential losses and seek higher returns (Mittal & Vyas, 2008). Those with moderate to low income are less likely to engage in derivatives trading due to lower risk tolerance and limited capital (Ghosh, 2010).

## III. RESEARCH GAP

The reviewed literature provides substantial insights into investors' behavior towards derivatives investments in India, encompassing awareness, risk appetite, and investment intention. However, several research gaps remain unexplored, presenting opportunities for further investigation. Majority of the studies primarily focus on demographic factors (age, gender, education, income) and their impact on derivatives investment behavior. While some studies address gender differences, they often generalize women's behavior as risk-averse without delving deeper into the nuances. Most studies use cross-sectional data, providing a snapshot of investor behavior at a single point in time. Limited research is conducted *INTERNATIONAL JOURNAL OF ENGINEERING SCIENCES & MANAGEMENT* 



# ISSN 2277 – 5528 Impact Factor- 5.085

on investors behavior towards investments in derivatives instrument in India but no research is conducted in Hyderabad city of Telangana state. The present study in this direction is a sincere attempt and will be contribute some new significant insights in the investor's behavior towards investments in derivatives instrument.

# IV. STATEMENT OF THE PROBLEM

Investors' behavior towards derivatives investments in India is a complex phenomenon influenced by multiple factors, including awareness, risk appetite, and investment intentions. Despite the growing significance of derivatives in the financial markets, participation among retail investors remains relatively low. The existing literature provides valuable insights into demographic influences and basic psychological factors affecting derivatives trading; however, several critical areas remain underexplored. These include the impact of specific behavioral biases, the role of technological advancements, detailed gender-specific analyses, and the influence of regulatory frameworks on investor behavior. Furthermore, there is a lack of longitudinal studies that track changes in investor behavior over time and limited research on cultural and regional variations within India.

## V. RESEARCH QUESTIONS

The following the research questions are framed under the study.

i. How do demographic factors such as age, income, and educational background influence investment behavior towards derivatives instruments in Hyderabad city?

ii. How do awareness, past investment experiences and perceived risk behavior affect investors' intentions to trade in derivatives?

## VI. METHODOLOGY OF THE STUDY

Research design is a frame work for complete the research work driven by the research questions and problem statement. This research design helps the researcher to adopt the suitable method to complete the research. The present study is qualitative in nature and defining the characteristics of the identified variables. Research Design is an outline for collection of data, measurement and interpretation of data to the problem statement.

Data Collection: There are two sources of collection of data i.e., primary data and secondary data.

- Primary data: it is collected for the first time from the target population or individuals by using a pre-determined questionnaire/surveys/interviews etc.
- Secondary data: Secondary data collection on Investment awareness and behaviour, objectives, diversification of risk, level of satisfaction is collected from high-quality magazines, books, websites, blogs, and newspapers, in print and unpublished data from different institution of higher education libraries. Apart from the above, secondary data collected from the papers, Access quality journals from standard databases i.e., Elsevier, Academia, Scopus Indexed Journal and Google Scholar.
- Research Instrument: A structured questionnaire was administered to sample investors consisting of Open and Closed Ended Questions, Likert's five points scale questions for importance of investment objectives and level of satisfaction on investment objectives.

### VII. NEED FOR THE STUDY

The need for this study is underscored by the growing complexity of financial markets and the diverse characteristics of the investor population. By examining how demographic factors influence behavior towards derivatives, this research aims to contribute to the development of more informed, confident, and successful investors. This study addresses several critical gaps and needs in the current financial research and practice. These are, Investors come from varied backgrounds, each with unique characteristics that affect their investment decisions. Factors such as age, occupation, educational background, marital status, and annual income can significantly influence how investors perceive risk, make decisions, and manage their portfolios. A comprehensive analysis of these demographic factors can provide valuable insights into tailoring financial products and advisory services to meet the specific needs of different investor segments.

The findings will provide valuable insights for financial educators, advisors, policymakers, and institutions, enabling them to better serve the needs of various investor groups and enhance overall financial well-being.

## VIII. SCOPE OF THE STUDY



# ISSN 2277 – 5528 Impact Factor- 5.085

The present study is limited to assess the investor's awareness, risk appetite behavior and investment intentions towards derivatives instruments. The study confines to Hyderabad city of Telangana state.

# IX. OBJECTIVES OF THE STUDY

The main objectives of the study are

- To analyze the demographic factors such as age, income, and educational background influence investment intentions towards derivatives instruments.
- To examine the significant association in the awareness, risk appetite behavior and investment intentions among demographic profile of the respondents.

## X. HYPOTHESIS OF THE STUDY

H01: There is no significant variation in means of demographic factors such as age, income, and educational background influence investment intentions towards derivatives instruments.

H02: There is no significant association in the awareness, risk appetite behavior and investment intentions among demographic profile of the respondents.

### SAMPLING TECHNIQUE AND SAMPLE SIZE

The present study adopts the non – probability method and convenient sampling technique. It is due to the investors are distributed among various brokerage firms and details are not easily available. Therefore, the study uses convenient sampling method based on the investors experience in the stock and derivatives market and willing to investment in derivatives market.

## STATISTICAL TOOLS APPLIED UNDER THE STUDY

The researcher used the below statistical tools to test the null hypothesis and discuss the results.

- Chi-square test is applied to measure significant relationship between independent variables.
- ANOVA: The basic principle of ANOVA is to test the mean differences among the groups or population. For this study ANOVA test helps to determine and analyse the mean difference between demographic profile and variables identified.
- Frequency distribution is used to compute the percentages.

6. Data Analysis and Interpretation: Demographic profile of the respondents are Age, Gender, Income, Marital Status, Educational Qualification, Occupation and Experience in Investment etc., The researcher, first depicts the demographic profile, investors profile and next compute the results according to objective wise.

• DEMOGRAPHIC PROFILE OF THE RESPONDENTS

### Table – 1: Frequency Distribution of Demographic Profile of the respondents

Demographi cVariables	Category	N	Percent
Age	<30	100	58.00
	31-40	65	38.00
	41-50	6	3.7
	Above 50	1	0.3

Condon	Male	96	56.1
Genuer	Female	76	43.9
	Single	78	45.3
	Married	92	53.6



ISSN 2277 – 5528 Impact Factor- 5,085

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Marital Status	Widowed	1	0.7
Marital Status	Divorced	1	0.4
	Below Graduation	7	4.1
	Graduation	70	40.5
EQs	PG & above	88	51.1
	Professional Degree CA/CMA/DOCTOR	7	4.3
	Business	49	28.5
	Self- Employee	36	20.9
Occupation	Private Employees	59	34.5
	Professionals	17	9.7
	Student	7	4
	House Wife	1	0.8
	Govt Employees	3	1.7
	Below Rs.150,000	60	35.1
	Rs.1,50,001 - Rs.3 Lakhs	37	21.4
	Rs.3,00,001 - Rs.5 Lakhs	50	29.3
<b>Annual Income</b>	Rs5,00,001 - Rs.700,000	20	11.9
	Above Rs. 7 Lakhs	4	2.3
	Joint	14	8.3
	Total Sample	172	100

Source: Primary Data; Note: DP: Demographic Profile; N=172

Frequency Distribution of Demographic Profile of the respondents is depicted in table -1. Demographic profiles of the respondents are Age, Gender, Marital Status, Educational Qualification, Occupation, and Annual Income, Family Size etc.

Age: Majority of the respondents 58% are less than 30 years age group and followed by 38% in 31-40 years age group. 3.7% of the respondents are 41-50 years and 0.3% of them are above 50 years age group. Gender: Based on the Gender, most of the respondents are Male 56.1% and Female respondent constitutes 43.9%. Marital Status: considering the marital status, majority of the sample respondents 53.6% are married and 45.3% are single / unmarried under the study. Very less respondents fall under the divorced and widowed category i.e., 0.7% and 0.4% respectively. Educational qualification wise, most of the sample respondents 51.1% are PG & Above qualification, followed by Graduation respondents i.e., 40.5%. Further, Professional Degree constitutes 4.3% and Below Graduation amounting to 4.1%. Occupation wise: majority of the respondents 34.5% are private employees, followed by Business personals 28.5% under the study. Annual Income: Most of the sample respondent's 35.1% annual income is Below Rs.1,50,000 and 29.3% have Annual Income between Rs. 3,00,001 – Rs. 5 Lakhs. Further, 21.4% of them having annual income between Rs.1, 50,000 – Rs.3 Lakhs.

## **INVESTOR PROFILE**

#### Table – 2: Frequency Distribution of Investor's Profile

Investor's Profile		Category	Ν	%
Category of investor	Day trader	•	40	23.2



# ISSN 2277 – 5528

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	Short term	63	36.9
	Medium term	16	9.3
	Long term	28	16.4
	Depends on Market	24	14.2
	Total	172	100
	Beginner (New to Market)	51	29.4
	Less than a Year	74	43.2
Exp in Stock and	1-3 Years	31	17.8
Derivatives Market	3-5 Years	10	6.1
	5-10 Years	6	3.5
	Total	172	100
	Shares	63	36.9
	Mutual Funds	40	23.2
	Bonds	12	6.98
Current Investment in the	Real Estate	8	4.65
assets	Derivatives	38	22.09
	Gold	7	4.07
	Crypto Currencies	4	2.33

Source: Primary Data

The researcher focuses on the investor profile and helps to understand the importance of investment objectives for investment decisions. Investor's profile consists of Category of the Investor, and Experience in the stock market and derivatives market.

Category of Investors: Short term trader resulting into 36.9%, Day traders is 23.2%, Long term investors are 16.4%, Depends on Market conditions is 14.2% and medium-term investors are 9.3%. Experience in Stock Market: Most of the investors 43.2% have less than a year experience and followed by 29.4% beginners to the market.1-3 years of experience investors are 17.8%. Furthermore, 3-5 years' experience investors constitute 6.1%, 5-10 years are 3.5% only under the study.

Current Investment in the assets: Most of the investors 36.9% invested in Shares, followed by Mutual funds (23.2%) and Derivatives (22.09%). Bonds (6.98%), Real Estate (4.65%), Gold (4.07%) and Crypto Currencies (2.33%) shows minor participation and investment by the sample respondents under the study. Furthermore, the researcher analyses the influence of demographic factors on investment intentions and examine the significant association in awareness, risk appetite behavior and investment intentions. The researcher formulated the below hypotheses and applied Anova – one way and chi-square test.

Objective-1: To analyze the demographic factors such as age, income, and educational background influence investment intentions towards derivatives instruments.

Null Hypothesis - H01: There is no significant mean difference in the investment intention among demographic profile of the respondents.

Investment intentions are consisting of factors influencing on investment decision, loss experience and risk management, consultation with financial advisor for investments in derivatives (F&O) and future investments in derivatives (F&O). The above hypothesis is tested with Anova – one way test at the 5% level of significance.



# ISSN 2277 – 5528 Impact Factor- 5.085

Investmen	Age		Occ	Occupation		Educational Qualification		Marital Status		Annual Income	
Intentions	F	р	F	р	F	р	F	p	F	p	
Factors influencing on investment decision	5.87 8	0.001 *	4.66 5	0.000 *	16.65 6	0.000 *	7.49 4	0.000 *	6.15 5	0.000 *	
Loss Experience and Risk Managemen t	1.56 2	0.197	2.71 0	0.013 *	8.351	0.000 *	8.17 1	0.000 *	6.51 5	0.000 *	
Consultatio n with Financial Advisor for Investments in Derivatives (F&O)	1.28 1	0.280	1.98 4	0.066	0.355	0.785	7.33 7	0.000	2.14 2	0.074	
Future Investments in Derivatives (F&O).	0.21	0.885	0.67 4	0.671	0.406	0.749	6.53 8	0.000 *	4.04	0.003	

# Table -3: ANOVA One Way Classification

Source: Primary Data; Note: \* indicates significant at 5% level.

The data depicted in the above table shows the results of ANOVA one way classification of Demographic Profile of the respondents. The outcome of the ANOVA table provides F – Value and p– value. From the table, it may understand that Age, Occupation, Educational Qualification, Marital status and Annual Income are five parameters are select by the researcher to analyze the investment objectives. Assuming that there is no significant variation in means on investment objectives among various demographical variables.

Demographic profile and Factors influencing on investment decision: The Anova – one way test results show that, Age (F=5.878), Occupation (F=4.665), Educational Qualification, (F=16.656), Marital Status (F=7.494) and Annual Income (F=6.155) has a significant mean difference in the Factors influencing on investment decision as computed value p<0.05.

Demographic profile and Loss Experience and Risk Management: The Anova – one way test results show that, Occupation (F=2.710), Educational Qualification (F=8.351), Marital Status (F=8.171) and Annual Income (F= 6.515) has a significant mean difference in the loss experience and risk management due to p<0.05. Age group of the respondents are not significant towards loss experience and risk management.as computed p - value > 0.05

Demographic profile and Financial Advisor's Consultation: The Anova – one way test results show that, Marital Status (F=7.337) has a significant mean difference in the Financial Advisor's Consultation because of p<0.05. Age group *INTERNATIONAL JOURNAL OF ENGINEERING SCIENCES & MANAGEMENT* 



# ISSN 2277 – 5528 Impact Factor- 5.085

(F=1.281), Occupation (F=1.984), Educational Qualification (F=0.355) and Annual Income (F=2.142) of the respondents are not significant towards as computed p value>0.05).

Demographic profile and Future Investments in Derivatives: The Anova – one way test results show that Marital status (F=6.538) and Annual Income (F=4.043) has a significant mean difference in the future investments in derivatives instruments (F&O) because of p<0.05. Age (F=0.216), Occupation (F=0.674) and Marital Status (F=0.406) does not have a significant mean difference in the Future investments in Derivatives (F&O).

Objective -2: To examine the significant association in the awareness, risk appetite behavior and investment intentions among demographic profile of the respondents.

Null Hypothesis - H02: There is no significant in the awareness, risk tolerance levels and investment intentions among demographic profile of the respondents.

Investors Behavior	Age		Occupation		Educational Qualification		Marital Status		Annual Income	
	χ2	р	χ2	р	χ2	р	χ2	р	χ2	р
Awareness										
on Stock	1.810	0.144	2.761	0.012*	6.138	0.000*	6.898	0.000*	3.780	0.005*
market										
Awareness										
on	4 007	0.008*	2.416	0.026*	5 053	0.002*	1 844	0.138	2.030	0.088
Derivatives		0.000	2	0.020	0.000	0.002	11011	0.120	2.020	0.000
(F&O)										
Confident in										
Decision										
invostmente	2.421	0.065	1.374	0.222	5.755	0.001*	3.598	0.013*	2.412	0.048*
in										
Derivatives										
Risk										
tolerance	2 383	0.068	4 4 3 8	0.000*	5 694	0.001*	7 621	0.000*	3 4 6 9	0.008*
levels	2.303	0.000		0.000	5.071	0.001	7.021	0.000	5.107	0.000

Table – 4:  $\chi^2$  – test results

Source: Primary Data  $\alpha$ =5%

Table – 4 shows the  $\chi^2$  – test results between demographic profile of the respondents and Awareness, Investment Intentions and Risk Appetite behavior.

Demographic Profile and Awareness on Stock Market: The  $\chi^2$  – test results shows that Occupation ( $\chi^2=2.761$ ), Educational Qualification ( $\chi^2=6.138$ ), Marital Status ( $\chi^2=6.898$ ) and Annual Income ( $\chi^2=3.780$ ) has a significant association with Awareness on Stock Market due to the computed value of p < 0.05. Age ( $\chi^2=1.810$ ) does not have a significant association with Awareness on Stock Market (p>0.05).

Demographic Profile and Awareness on Derivatives (F&O): The computed value of  $\chi^2$  – test results shows that there is a significant association between Age ( $\chi^2$ =4.007), Occupation ( $\chi^2$ = 2.416), Educational Qualification ( $\chi^2$  = 5.053) and Awareness on Derivatives (F&O) instruments due to the computed value of p < 0.05. It is also observed that, Marital



# ISSN 2277 - 5528 Impact Factor- 5.085

status ( $\chi 2= 1.844$ ) and Annual Income ( $\chi 2=2.030$ ) do not have significant association with Awareness on Derivatives (F&O) instruments as computed value of p > 0.05.

Demographic Profile and Confident in Decision making for investments in Derivatives (F&O) instruments: It is inferred from the  $\chi^2$  test results that, Educational Qualification ( $\chi^2$ =5.755), Marital status ( $\chi^2$ =3.598) and Annual Income ( $\chi^2$ =2.412) has a significant association with Confident in Decision making for investments in Derivatives instruments. On the other hand, there is no significant association between Age ( $\chi^2$ =2.421) and Occupation ( $\chi^2$ =1.374) due to the computed value of p > 0.05. Demographic Profile and Risk tolerance levels: The  $\chi^2$  test results shows that there is a significant association between Occupation ( $\chi^2$ =4.438), Educational Qualification ( $\chi^2$ =5.694), Marital Status ( $\chi^2$ =7.621) and Annual Income ( $\chi^2$ =3.469) with Risk tolerance level of the respondents under the study. The computed value of p < 0.05) indicates to reject H02. On the other hand, it is also observed that, there is no significant association between Age ( $\chi^2$ =2.383) and Risk tolerance levels of the respondents.

## XI. RESULTS AND DISCUSSIONS

Overall, the Anova – one way test results indicate that demographic factors such as occupation, educational qualification, marital status, and annual income generally have significant effects on investment intentions and behaviors. Age, however, appears to have a limited impact, except on factors

influencing investment decisions. Considering the  $\chi^2$  results which indicates that educational qualification and marital status are consistently significant factors affecting various aspects of investors' behavior, including awareness, confidence, and risk tolerance. Age shows a significant impact only on awareness of derivatives. Occupation and annual income also play significant roles in several aspects of investors' behavior. The results highlight the importance of demographic factors in shaping investment-related behaviors and attitudes.

Furthermore, it is also observed from the study that educational qualification emerges as a consistently significant factor in both tests, impacting awareness, decision-making confidence, risk tolerance, and overall investment behaviour. This highlights the role of education in shaping knowledgeable and confident investors. Marital status significantly influences investment decisions, risk management, confidence in decision-making, and risk tolerance. This suggests that personal life circumstances and responsibilities play a crucial role in financial decision-making. Annual income is a significant factor for most aspects of investment behaviour, indicating that financial capacity influences awareness, confidence, and risk tolerance. Occupation significantly impacts several aspects of investment behavior, especially in the areas of risk management and awareness. This points to the influence of professional background on financial literacy and risk attitudes. Age shows mixed results, significantly affecting some areas like awareness of derivatives and factors influencing investment decisions but not others like confidence in decision-making or risk tolerance.

### XII. LIMITATIONS OF THE STUDY

The study is based on responses through administering the questionnaire using Offline and Online. Thus, there may be some personal bias in the study.

- The study is confined to Hyderabad city only and using a convenient sampling technique. As the sampling technique may have its own limitations that might affect on the present study.
- The sample size is very small and the inferences extracted is confined to this study only. It is advised to test the results using the same questionnaire in other geographical areas also.

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