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An empirical study on the investment pattern of gender in Kolkata

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Abstract: *This study examines differences in financial awareness and investment among 500 respondents—200 men, 200 women, and 100 transgender individuals—in Kolkata, India.. Using a comparative cross-sectional design, the study applies the Kruskal–Wallis test and Brunner-Munzel test for effect-size analysis. Investors now have a wide range of investment options, including mutual funds, exchange-traded funds (ETFs), sovereign gold bonds, equities, corporate bonds, systematic investment plans (SIPs), and retirement products. The availability of financial information has also had an impact on investor behaviour, increasing their involvement with formal financial markets (OECD, 2018; RBI, 2021).The investment pattern of men and women in comparison to transgender individuals, became the essence of the study and how much similar or dissimilar their preferences are became an important part of the study.*

Materials and Methods: *The empirical analysis was conducted based on the basis of 500 respondents from Kolkata; it can be known that there were 200 males, 200 females, and 100 transgender respondents. The respondents were from the ten most densely populated wards of Kolkata Municipal Corporation, who were both male and female, while transgender respondents were contacted through a transgender friendly NGO, Forum of Peace and Unity, covering BurbaBazar, Shyambazar, Alipore and Southern Avenue. An overall sample is produced that allows for a comparison of the three groups, which includes an understanding of the need for varying sampling frames for the household and transgender population.*

Results: *The study revealed notable gender-based differences in investment preferences and financial decision-making. First, men demonstrated stronger preferences for PPF, equity, mutual funds and shares, whereas women exhibited relatively moderate preferences across most investment avenues. Transgender respondents showed comparatively lower awareness of investment options beyond traditional avenues such as post office savings, gold and fixed deposits. Second, regarding mutual fund preferences, men demonstrated greater inclination towards debt, index and balanced funds, while women predominantly preferred debt funds. Transgender respondents exhibited limited familiarity with different mutual fund categories. Third, pension scheme participation revealed that men and women benefited from multiple schemes, including EPS, NPS, APS and IGNOAPS, whereas transgender respondents reported benefits primarily from the Atal Pension Scheme.Finally, tax planning practices indicated that men and women demonstrated greater awareness and proactive planning, often seeking expert advice, while transgender respondents exhibited comparatively limited awareness of tax-planning mechanisms.*

Keywords*: Investment pattern, Transgender individuals, Pension, Funds, awareness.*

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I. Introduction

1.1 Background and Context

In emerging markets, household financial decision-making has become more complicated as they have to select between traditional saving vehicles, securities, insurance instruments, digital financial services and government-assisted investment schemes. They must be guided by knowledge of interest rates, inflation, diversification, risk, and return, as well as appropriateness of products. Financial literacy then has direct implications for the nature of household decisions as well as on the extent to which households adopt formal financial markets. People with low financial knowledge have considerably lower rates of share investment, and higher financial knowledge has been shown to be associated with greater investment in stocks, which helps them to understand stock products and take stock risk into account (van Rooij et al., 2011; Zhao et al., 2024). Access to relevant information and the effect of limited attention on financial behaviour is also a factor of financial literacy (Xu et al., 2022). More older people with high literacy tend to pay their debt on time, have an account in the stock markets and diversify their risk (Fong et al., 2021). But knowledge does not necessarily lead to inclusion. However, it is income, wealth, resilience, advice and previous investment experience that will enable some people

to put the awareness into market participation (Oehler & Horn, 2023; Abreu et al., 2025). Thus, these inequalities render gender of special relevance for family finance in the emerging economies.

1.2 Gender and Financial Awareness

Although the financial-literacy gap seems to be skewed towards men, this varies based on variables such as age, socioeconomic factors, education, socialisation, confidence, and computational skills (Haag & Brahm, 2025). The findings in this study suggest that, on average, men may be slightly more knowledgeable and risk-tolerant compared to women; while women are more hesitant and risk-averse, at the same time they may be at a disadvantage when it comes to wrong financial practices (Damong & Perez, 2024). In urban India, this is also evidenced as women are more likely to pick gold, deposits, savings, etc., which are more secure investments, while men tend to invest in market-related products and make significant decisions about the house (Tiwari & Dubey, 2024). Women might also be less likely to participate given reduced confidence and fear of losses (Lebleci Teker et al., 2024). However, professional financial advice positively affects women's willingness to take investment risks, showing that gender differences are not necessarily behavioural traits (Baeckstrom et al., 2021). Financial literacy can also reduce behavioural biases of the male and female investors (Adil et al., 2021). Research must consequently go beyond a binary approach and take account of transgender and gender-diverse financial experiences.

1.3 Transgender Financial Exclusion in India

The adoption of a perspective that transcends the dichotomy of male and female is especially crucial in India, where transgenders often face precarious jobs and sporadic earnings, social ostracism and a lack of access to formal accumulation of assets. Even if there is financial knowledge, these conditions may limit the resources that need to be accessed to save, buy insurance or engage in securities markets. Knowledge from some other emerging markets indicates that financial literacy encourages investment decisions, while at the same time risk tolerance and structural conditions determine if this knowledge will translate into actual investment (Naiwen et al., 2021). While government interventions and new financial technologies can help to widen participation, the impact of these hinges on the offering and how households perceive and engage with it (Filippin, 2025). Access to legitimate and dependable financial information, trans-specific banking, and accessing and changing identity documents can also support exclusion for transgender individuals. Inclusive finance can no longer therefore stop at merely individual financial literacy and needs to take into account institutional access, confidence and product knowledge, as well as income security.

1.4 Research Problem and Gap

The majority of research on financial literacy to date has still been based on a binary male/female context, and they are not often viewed beyond that. Available scholarship on transgender people predominantly focuses on employment, health, discrimination and social exclusion rather than financial knowledge and participation of transgender people in investments. Thus, there is limited evidence that compares male and female, and transgender people in the same questionnaire, geography, and analysis. But pre-existing studies often focus on statistical significance and do not take into consideration whether group differences discovered in their research have a meaningful or practical impact. While recent studies highlight the interaction of factors like literacy, resilience, socio-economic status, behavioural biases, and policy design on participation, city-level literature on Kolkata remains limited (Abreu et al., 2025; Adil et al., 2021). This study aims to overcome these limitations by taking into account three-group significance testing and pairwise effect-size analysis.

1.5 Aim and Research Objectives

The aim is to compare financial awareness, investment-related knowledge, investment preferences, and barriers to financial inclusion among men, women, and transgender individuals in Kolkata.

The objectives are as follows:

1. To compare awareness of basic and market-linked financial instruments across the three gender groups.
2. To examine preferences of men, women, and transgender individuals across different investment avenues.
3. To analyse the behavioural biases, investment procedures and idea about the same among the genders .

1.6 Contribution of the Study

The study has three contributions. Empirically, by design it contains 100 transgender respondents in a comparative sample of 500 people, and takes household-finance research beyond the traditional binary distinction. In terms of methodology, it utilizes Kruskal Wallis tests to examine the statistical significance, then Brunners Munzel test was additionally used as a robust pairwise procedure to validate group differences under less restrictive assumptions concerning variance and distributional shape. On the policy side, promote verified digital financial information, deliver financial awareness programmes through Gurumandli members, ,conduct targeted

enrolment camps and awareness programmes to improve access to government pension schemes and retirement security and develop behavioural finance training to improve understanding of cognitive biases and investment discipline.

II. Literature Review and Hypothesis Development

2.1 Financial Awareness and Financial Behaviour

Financial literacy, financial awareness, financial capability and financial behaviour represent interconnected but distinct dimensions of individual financial decision-making. Financial literacy primarily concerns an individual's understanding of financial principles and the ability to apply such knowledge while making financial choices. Financial awareness, on the other hand, relates to familiarity with available financial products, services, associated risks and returns, and the institutional mechanisms governing them. Financial capability extends beyond knowledge by incorporating an individual's confidence, accessibility to financial resources and ability to translate knowledge into action. Financial behaviour is reflected in practical financial activities, including saving, budgeting, borrowing, investing and debt repayment. Similarly, financial inclusion refers to the availability and effective utilisation of affordable formal financial services. Although these dimensions complement one another, awareness of a financial product does not necessarily result in its adoption, just as product utilisation does not automatically indicate informed financial decision-making.

Existing research establishes a relationship between financial knowledge and the adoption of prudent financial practices. Aristei and Gallo (2021) and Robb and Woodyard (2011) demonstrate that both actual financial knowledge and individuals' perceptions of their financial competence influence financial behaviour. In certain situations, confidence in one's financial understanding may have a stronger behavioural influence than objectively measured knowledge. Financial education also plays an important role in developing financial competence, although its effectiveness depends on programme structure, timing and the characteristics of the intended beneficiaries (Kaiser et al., 2020; Stolper & Walter, 2017). Chaniago et al. (2026) further highlight the importance of financial awareness and professional guidance in managing complex financial commitments, particularly housing finance, where informed planning becomes essential. Garai-Fodor (2023) similarly emphasises that financial knowledge enables consumers to evaluate alternatives through cost-benefit considerations, provided that appropriate information and institutional support are available. The significance of financial literacy is also evident among women entrepreneurs and household financial decision-makers, where improved financial understanding contributes to better financial management practices (Andarsari & Ningtyas, 2019). Thus, financial awareness constitutes an important foundation for responsible financial behaviour, although its translation into actual saving and investment decisions is also influenced by economic circumstances and access to financial opportunities.

2.2 Gender Differences in Investment Behaviour

Gender-based variations in investment behaviour have received considerable attention in financial research. Existing studies frequently indicate that men demonstrate greater participation in market-oriented investment activities, accompanied by comparatively higher financial confidence and willingness to undertake investment risks. Women, in contrast, have often been associated with a greater preference for capital protection, financial stability and conventional savings instruments. Nevertheless, these observed differences should be understood within their wider socioeconomic and behavioural contexts rather than treated as inherent characteristics of either gender. Fisher and Yao (2017) suggest that variations in financial risk-taking are partly explained by differences in wealth, uncertainty surrounding income and other individual circumstances. Similarly, Cupák et al. (2020) identify an association between confidence in financial knowledge and gender disparities in the ownership of risky financial assets.

Investment decisions are also shaped by factors extending beyond gender, including economic position, family influence, individual autonomy, social perceptions and access to financial information. Ajabnoor and Faisal (2023) and Singh (2025) identify these considerations as important determinants of women's investment-related choices. Research among male and female students has also indicated a greater inclination among men towards equity investments, although differences in financial attitudes and risk preferences are not consistently observed across groups (Lyngdoh et al., 2025). Thanki et al. (2022) similarly report variations in risk-taking attitudes within the working population. Carneiro and Quelhas (2025) observe that women may exhibit comparatively lower risk tolerance and stronger herding tendencies without necessarily experiencing inferior investment returns. Findings by Yarasheva and Alikperova (2020) also suggest that women generally favour safer financial choices, whereas men demonstrate a greater inclination towards risk-oriented investments.

Research focusing on the Indian investment environment further indicates that financial knowledge and socioeconomic circumstances influence the selection of mutual fund products. Harini and Savithri (2021) and Kaur and Kaushik (2016) report that working women frequently favour banking instruments, gold, insurance products and post-office savings schemes. Sharma and Lyall (2022) also identify gender-related variations in investment frequency and risk preferences. However, recent academic discussions increasingly question whether

gender alone adequately explains differences in investment decisions. Jhansi and Muthukumaran (2026) emphasise the importance of examining other dimensions, such as financial literacy, investment experience, behavioural biases and individual risk tolerance, to develop a more comprehensive understanding of investment behaviour.

2.3 Financial Exclusion of Transgender Individuals

Financial exclusion among transgender individuals remains an insufficiently explored area within mainstream financial research. Their participation in formal financial systems is influenced by multiple interconnected economic, institutional and social constraints. Barik and Sharma (2021), in their study of transgender individuals in Odisha, identify barriers operating at both the demand and supply levels. Demand-side difficulties include inadequate financial knowledge, documentation-related complications, irregular employment and limited awareness of available financial services. Supply-side constraints arise from inadequate institutional outreach and the absence of supportive and inclusive banking practices. Aneesha and Baag (2021) further point out that conventional approaches to financial inclusion, which largely operate through binary gender classifications, often fail to recognise the specific financial requirements and accessibility challenges encountered by transgender communities.

The financial vulnerability of transgender individuals must also be examined in relation to broader socioeconomic disadvantages. Employment insecurity, poverty, housing difficulties and experiences of discrimination can collectively restrict their ability to accumulate assets and participate in formal financial activities. Russomanno et al. (2019) document the association of transgender and gender non-conforming identities with unemployment, economic hardship, food insecurity and reduced social support. Glick et al. (2020) similarly establish connections between housing instability, financial deprivation, social isolation and psychological distress. These vulnerabilities became particularly pronounced during the COVID-19 pandemic, when economic disruption and inadequate access to gender-affirming support further intensified the difficulties experienced by transgender and non-binary populations (Jarrett et al., 2021).

2.4 Hypothesis Development

H0: There is no difference in investment patterns between genders

H1: There is a significant difference in investment patterns between genders.

III. Data and Research Methodology

3.1 Research Design

The present investigation employed a quantitative approach based on a descriptive survey research design. It was exploratory and comparative in nature, focusing on variations among men, women and transgender individuals in Kolkata with respect to financial awareness, knowledge of investment products, investment preferences and financial inclusion. The descriptive aspect of the research was intended to present the prevailing patterns of financial awareness and investment-related practices among the respondents. In addition, inferential statistical techniques were applied to examine whether the observed differences across the three gender categories were statistically significant and meaningful. Since the information was collected during a single period of observation for each respondent, the study provides a cross-sectional assessment of financial awareness and financial inclusion among the selected population groups.

3.2 Study Area

The geographical scope of the investigation was restricted to Kolkata, West Bengal. As an important metropolitan and commercial centre, the city accommodates individuals belonging to diverse socioeconomic, occupational and demographic backgrounds. Kolkata provides access to several formal financial services and investment opportunities, including commercial banking, post-office savings schemes, insurance products, securities markets and digital financial facilities. The availability of these conventional and contemporary financial instruments makes the city an appropriate setting for examining differences in financial awareness and investment-related preferences.

The presence of transgender community organisations and non-governmental organisations operating across different parts of Kolkata also facilitated the identification and inclusion of transgender respondents. This was particularly relevant because the identification and selection of transgender individuals through conventional household-based sampling procedures can present practical difficulties.

3.3 Population and Sample

The target population consisted of adult men, women and transgender individuals residing in Kolkata. The final sample comprised 500 respondents, distributed across the three gender categories, with 200 men, 200 women and 100 transgender individuals.

Male and female respondents were selected from households situated within ten wards of the Kolkata Municipal Corporation (KMC). The transgender respondents were approached through a community-based non-governmental organisation working with transgender individuals in Kolkata.

The selection of household respondents was guided by the age and income criteria incorporated into the research questionnaire. Households were approached to identify eligible adult male and female participants who fulfilled the specified selection conditions. Inclusion in the study required respondents to reside within the selected geographical areas and provide responses to the relevant questionnaire items. The transgender sample consisted of 100 individuals associated with the geographical areas covered by the selected NGO, who participated in the survey and completed the questionnaire.

3.4 Sampling Procedure

Separate sampling approaches were adopted for men and women and for transgender respondents because a common and comprehensive sampling frame covering all three population groups was not available.

For selecting male and female respondents, the 144 administrative wards of the Kolkata Municipal Corporation were considered as the geographical sampling framework. Based on household population information obtained from the Census 2011 databook, the ten wards with the largest household populations were identified. These included Ward Nos. 1, 3, 14, 58, 59, 65, 66, 67, 108 and 109. The combined household population of these selected wards was reported as 185,083 (Office of the Registrar General & Census Commissioner, India, 2011). Primary data collection was undertaken between April 2022 and May 2025.

The male and female samples were determined through proportional allocation, with a target of 200 respondents in each gender category. The number of respondents assigned to individual wards was calculated according to their respective share of the total household population across the selected geographical areas.

The proportional allocation formula used was:

$$\mathbf{n_i = (N_i / N) \times n}$$

Where:

- n_i = Number of respondents allocated to the respective ward.
- N_i = Number of households in the particular ward.
- N = Total number of households in all ten selected wards.
- n = Required sample size for each gender category.

For example, the allocation for Ward No. 1 was calculated as follows:

Ward 1 allocation = (11,328 / 185,083) × 200 ≈ 12 respondents.

The same proportional allocation procedure was applied to the remaining selected wards. Subsequently, household surveys were conducted to identify eligible adult male and female respondents according to the age and income classifications specified in the questionnaire.

For the transgender sample, seven NGOs operating in Kolkata were identified and assigned separate identification numbers. One organisation, Forum of Peace and Unity, was selected through a random selection procedure. The organisation was engaged in community-related activities involving more than 200 transgender individuals across locations such as Burrabazar, Shyambazar, Alipore and Southern Avenue.

A total of 100 transgender individuals were interviewed through face-to-face interactions. The absence of comprehensive ward-level information on the transgender population and the difficulty of establishing a conventional household sampling frame necessitated the use of an NGO-assisted recruitment approach. This facilitated access to the respondents and enabled the collection of primary information from the transgender community.

Table 1. Sampling Distribution of Men and Women across Selected Kolkata Municipal Corporation Wards

Table 1

Sampling Distribution of Men and Women across Selected Kolkata Municipal Corporation Wards

Ward	Number of households	Proportion of total	Men, n	Women, n
1	11,328	6.12%	12	12
3	11,338	6.12%	14	14
14	11,563	6.25%	14	14
58	20,093	10.85%	22	22
59	20,176	10.90%	22	22
65	18,125	9.79%	20	20
66	19,572	10.57%	22	22
67	18,987	10.24%	22	22
108	23,140	12.50%	26	26
109	23,361	12.62%	26	26
Total	**185,083**	**100.00%**	**200**	**200**

Note. Household figures were obtained from the 2011 Census databook. The ward-wise allocations total 200 men and 200 women.

3.5 Instrument and Measurement

Primary information was collected through a structured questionnaire designed to examine the respondents' financial awareness, investment preferences and understanding of the characteristics and benefits associated with different financial products. The research instrument consisted of 122 variables, although the present analysis incorporates only those variables relevant to the specific objectives of the study. The information was examined from a gender-comparative perspective.

The questionnaire was organised into five broad sections covering awareness of income, investment-related knowledge, financial risk, returns on investment and financial education. It incorporated questions relating to different financial instruments, including savings bank accounts, post-office investment schemes, fixed deposits, insurance policies, gold, Public Provident Fund (PPF), shares, equity, bonds, mutual funds and various gold-based investment products.

In addition to conventional investment avenues, the instrument examined respondents' familiarity with contemporary banking and digital financial services, such as internet banking, ATM facilities, mobile banking, debit cards, credit cards and digital payment systems. Other questions explored the sources from which respondents obtained investment-related information, the considerations influencing their selection of financial institutions and investment products, their preferences regarding different levels of investment risk, and the reasons for not maintaining a bank account.

Financial awareness was measured through a five-point Likert scale, ranging from 1, representing 'Strongly Disagree', to 5, representing 'Strongly Agree'. This measurement framework facilitated the systematic assessment and comparison of responses across the three gender groups.

3.6 Reliability of the Instrument

The internal consistency of the questionnaire was examined using Cronbach's alpha. The reliability analysis produced an alpha coefficient of 0.974, indicating a very high level of internal consistency among the questionnaire items. Cronbach's alpha is a widely recognised measure for assessing the extent to which a group of related items consistently measures an underlying construct (Cronbach, 1951).

The obtained coefficient suggests a strong degree of interrelationship among the items included in the instrument. Consequently, the questionnaire demonstrated a high level of reliability for examining the selected dimensions of financial awareness.

3.7 Statistical Analysis

Both descriptive and inferential statistical procedures were employed to analyse the primary data. Descriptive techniques were used to summarise the respondents' financial awareness, investment preferences and related responses across the three gender categories. The questionnaire responses were recorded on an ordinal Likert scale, and the data were found to deviate from normality. Accordingly, non-parametric statistical procedures were considered appropriate for examining group differences.

The Kruskal–Wallis H test was applied to determine whether statistically significant differences existed among men, women and transgender respondents (Kruskal & Wallis, 1952). In addition to the overall three-group comparison, a separate comparison between men and women was undertaken to examine whether the differences observed in the overall analysis were also evident between these two groups or were primarily associated with the inclusion of transgender respondents.

The Brunner–Munzel test was conducted to provide a robust pairwise comparison between independent groups after identifying significant differences through the Kruskal–Wallis test. Unlike the Mann–Whitney U test, which assumes that the distributions of the groups have similar shapes and variances, the Brunner–Munzel test does not require the assumption of equal variances or identical distributional shapes. This makes it particularly suitable for ordinal, non-normal data where these assumptions may be violated.

The level of statistical significance was fixed at $p < 0.05$. Wherever the statistical software displayed a probability value of 0.000, it was reported as $p < 0.001$ to ensure appropriate statistical interpretation.

3.8 Ethical Considerations

The primary data were obtained through face-to-face survey interactions with the selected respondents. Particular attention was given to maintaining the confidentiality of the information collected. The findings have been presented in aggregated form across the male, female and transgender respondent categories. Personal names and other details that could reveal the identities of individual participants have not been disclosed in the research article.

Given the personal nature of gender identity, the collection and subsequent analysis of information relating to transgender respondents were undertaken with sensitivity. The presentation of the findings was designed to maintain respondent confidentiality while facilitating a comparative examination of financial awareness and inclusion across the selected population groups.

IV. Empirical Results

4.1 Respondent Profile

The empirical investigation was based on primary information obtained from 500 respondents residing in Kolkata. The sample comprised 200 men, 200 women and 100 transgender individuals, thereby enabling a comparative assessment of financial awareness and investment-related practices across the three gender categories.

Male and female respondents were selected from the ten most densely populated wards of the Kolkata Municipal Corporation through household-based sampling. Transgender respondents were approached through Forum of Peace and Unity, a transgender-friendly non-governmental organisation operating across Burrabazar, Shyambazar, Alipore and Southern Avenue.

The overall sampling framework incorporated different recruitment procedures for the three gender groups, reflecting the practical differences in identifying and accessing the respective populations. Household-based selection was adopted for men and women, whereas NGO-assisted face-to-face recruitment was used for transgender participants. This arrangement enabled the inclusion of all three groups within a common comparative research framework.

Table 2. Profile and Sampling Characteristics of Respondents

Gender group	n	% of sample	Sampling source	Geographical coverage
Men	200	40.0	Households; proportionate ward allocation	10 KMC wards
Women	200	40.0	Households; proportionate ward allocation	10 KMC wards
Transgender individuals	100	20.0	NGO-assisted face-to-face survey	Burrabazar, Shyambazar, Alipore, Southern Avenue
Total	500	100.0	Primary survey	Kolkata

The respondent distribution indicates that men and women each constituted 40 per cent of the total sample, while transgender individuals accounted for the remaining 20 per cent. The inclusion of an equal number of male and female respondents, together with 100 transgender participants, provided the basis for examining similarities and differences in financial awareness and investment-related practices across the three gender groups.

V. Data analysis and interpretation

5.1 Rationale for the Two Kruskal–Wallis Comparisons

The Kruskal–Wallis H test compares independent groups without requiring normally distributed scores. Its rank-based approach is suited to the ordinal responses used here.

The primary analysis compared men, women and transgender respondents. A significant omnibus result establishes that at least one group differs, but does not identify the groups concerned.

Significant omnibus findings were therefore followed by Dunn's adjusted pairwise comparisons.

A second Kruskal–Wallis analysis compared men and women alone. This retained a consistent rank-based framework across the two- and three-group assessments.

The restricted comparison helps establish whether a difference remains between men and women when transgender respondents are not included.

The two analyses are read together:

- Significance in the three-group test alone points to differences involving the transgender group, although the pairwise tests determine which contrasts are significant.
- Significance in both comparisons indicates an overall group difference and a detectable men–women difference.
- A non-significant result provides insufficient evidence of a group difference; it does not demonstrate identical distributions.

Questions	Men Vs Women Vs Transgender (H value)	P-value	Decision	Men Vs women (H-value)	p-value	Decision
Medium influenced you for investment-gurumandli or family and friends	4.658	.121	Null hypothesis accepted	.331	.565	Null hypothesis accepted

Medium influenced you for investment-internet and tv	24.285	.097	Null hypothesis rejected	4.469	.674	Null hypothesis accepted
Medium influenced you for investment-others	42.225	.000	Null hypothesis rejected	50.489	.563	Null hypothesis accepted
If you get Rs. 50000, how will you invest-low risk-6:3:1	18.405	.000	Null hypothesis rejected.	1.235	.266	Null hypothesis accepted .
If you get Rs. 50000, how will you invest-medium risk-3:4:4	40.567	.000	Null hypothesis rejected.	5.295	.260	Null hypothesis accepted
If you get Rs. 50000, how will you invest-high risk -1:4:5	82.631	.000	Null hypothesis rejected.	2.490	.021	Null hypothesis rejected
Do you prefer PPF	15.343	.000	Null hypothesis rejected.	.029	.865	Null hypothesis accepted
Do you prefer shares	34.764	.000	Null hypothesis rejected.	3.368	.066	Null hypothesis accepted
Do you prefer bond	111.564	.000	Null hypothesis rejected.	3.103	.078	Null hypothesis rejected
Do you prefer equity	101.379	.000	Null hypothesis rejected.	1.392	.238	Null hypothesis rejected
Do you prefer mutual funds	37.909	.000	Null hypothesis rejected.	.462	.497	Null hypothesis accepted
Do you prefer insurance	2.544	.280	Null hypothesis rejected.	1.360	.244	Null hypothesis accepted
Do you prefer gold	7.666	.022	Null hypothesis accepted	4.138	.800	Null hypothesis accepted
Do you prefer fixed deposit	1.787	.409	Null hypothesis accepted	1.541	.215	Null hypothesis accepted
Reinvestment of maturity amount – Reinvest	74.18	.000	Null hypothesis rejected	65.94	.000	Null hypothesis rejected
Reinvestment of maturity amount – New investment	20.80	.000	Null hypothesis rejected	11.85	.067	Null hypothesis accepted
Reinvestment of maturity amount – Purchase new asset	26.96	.000	Null hypothesis rejected	0.81	.368	Null hypothesis accepted
Reinvestment of maturity amount – Future contingency	1.622	.340	Null hypothesis accepted	2.17	.141	Null hypothesis accepted
Which of the following mutual funds do you prefer – Equity Fund	H = 44.393, df = 2	.000	Null hypothesis rejected	H = 12.704, df = 1	.001	Null hypothesis rejected

Which of the following mutual funds do you prefer – Index Fund	H = 52.171, df = 2	.000	Null hypothesis rejected	H = 25.981, df = 1	.000	Null hypothesis rejected
Which of the following mutual funds do you prefer – Balance Fund	H = 33.249, df = 2	.000	Null hypothesis rejected	H = 13.998, df = 1	.001	Null hypothesis rejected
Which of the following mutual funds do you prefer – Debt Fund	H = 34.082, df = 2	.000	Null hypothesis rejected	H = 4.916, df = 1	.117	Null hypothesis accepted*
Which of the following mutual funds do you prefer – Growth Fund	H = 43.130, df = 2	.044	Null hypothesis rejected	H = 10.516, df = 1	.042	Null hypothesis rejected
Which of the following mutual funds do you prefer – Tax Saving Fund	H = 30.413, df = 2	.010	Null hypothesis rejected	H = 16.554, df = 1	.457	Null hypothesis rejected*
Which of the following mutual funds do you prefer – Money Market Fund	H = 29.867, df = 2	.000	Null hypothesis rejected	H = 16.137, df = 1	.011	Null hypothesis rejected
Are you aware about daily trend study in share market	39.426	.000	Null hypothesis rejected	.052	.819	Null hypothesis accepted
Are you aware about weekly trend study in share market	37.977	.000	Null hypothesis rejected	2.035	.154	Null hypothesis accepted
Are you aware about monthly trend study in share market	47.238	.000	Null hypothesis rejected	2.726	.099	Null hypothesis accepted
Awareness about pension scheme – Employee Pension Scheme	H = 20.574, df = 2	0.000	Null hypothesis rejected	H = 0.087, df = 1	0.768	Null hypothesis accepted
Awareness about pension scheme – National Pension Scheme	H = 16.168, df = 2	0.000	Null hypothesis rejected	H = 0.093, df = 1	0.760	Null hypothesis accepted
Awareness about pension scheme – West Bengal Government Pension	H = 1.497, df = 2	0.0473	Null hypothesis rejected	H = 0.510, df = 1	0.475	Null hypothesis accepted
Awareness about pension scheme – Atal Pension Yojana	H = 3.080, df = 2	0.214	Null hypothesis accepted	H = 2.826, df = 1	0.093	Null hypothesis accepted
Do you get benefit from any type of pension scheme – Swavalambhan Scheme	H = 12.740, df = 2	0.020	Null hypothesis rejected	H = 10.699, df = 1	0.001	Null hypothesis rejected
Do you get benefit from any type of pension scheme – Indira Gandhi National Old Age	H = 28.052, df = 2	0.000	Null hypothesis rejected	H = 1.426, df = 1	0.230	Null hypothesis accepted

Do you get benefit from any type of pension scheme – Pradhan Mantri Vaya Vandana Yojana	H = 26.953, df = 2	0.000	Null hypothesis rejected	H = 23.397, df = 1	0.000	Null hypothesis rejected
Tax-planning approach – Estimate total income	H = 41.96, df = 2	0.000	Null hypothesis rejected	H = 1.32, df = 1	0.251	Null hypothesis accepted
Tax-planning approach – Plan savings near year-end	H = 32.41, df = 2	0.000	Null hypothesis rejected	H = 31.64, df = 1	0.000	Null hypothesis rejected
Tax-planning approach – Not actively planned liabilities	H = 61.49, df = 2	0.000	Null hypothesis rejected	H = 37.29, df = 1	0.000	Null hypothesis rejected
How frequently do you adjust and review your investments – Monthly	H = 18.932, df = 2	0.000	Null hypothesis rejected	H = 20.875, df = 1	0.000	Null hypothesis rejected
How frequently do you adjust and review your investments – Quarterly	H = 22.076, df = 2	0.000	Null hypothesis rejected	H = 23.897, df = 1	0.000	Null hypothesis rejected
How frequently do you adjust and review your investments – Annually	H=12.884, df=2	0.000	Null hypothesis is rejected	H=5.127, df =1	0.147	Null hypothesis accepted
Financial awareness and investment planning (short-term/long-term)	H = 87.00, df = 2	0.000	Null hypothesis rejected	H = 12.40, df = 1	0.246	Null hypothesis accepted
Financial awareness and investment plan – Goal alignment	H = 88.67, df = 2	0.000	Null hypothesis rejected	H = 13.72, df = 1	0.110	Null hypothesis accepted
Financial awareness and investment strategy – Behavioural bias reduction	H = 90.72, df = 2	0.000	Null hypothesis rejected	H = 61.20, df = 1	0.000	Null hypothesis rejected
Financial awareness and investment strategy –informed decision making	H=3.481,df=2	0.228	Null hypothesis accepted	H=4.391,df=1	0.230	Null hypothesis accepted
Financial awareness and investment strategy – enhanced risk assessment	H=20.621,df=2	0.019	Null hypothesis rejected	H=16.341,df=1	0.149	Null hypothesis accepeted

5.2 Rationale for Brunner-Munzel Test

Questions	Men vs Transgender	Women vs Transgender	Men vs Women
Factors to be considered before investing in an organisation – Past performance	p = 0.680, W = 0.21, CL = 0.233 → Null hypothesis accepted	p = 0.163, W = 1.35, CL = 0.370 → Null hypothesis accepted	p = 0.310, W = 1.11, CL = 0.118 → Null hypothesis accepted

Factors to be considered before investing in an organisation – Loan providing capacity of the organisation	p = 0.032, W = 2.35, CL = 0.267 → Null hypothesis rejected	p = 0.019, W = 2.33, CL = 0.311 → Null hypothesis rejected	p = 0.427, W = 0.81, CL = 0.144 → Null hypothesis accepted
Factors to be considered before investing in an organisation – Public reputation	p = 0.007, W = 2.66, CL = 0.351 → Null hypothesis rejected	p = 0.021, W = 2.49, CL = 0.338 → Null hypothesis rejected	p = 0.253, W = 1.13, CL = 0.184 → Null hypothesis accepted
Factors to be considered before investing in an organisation – Net-worth of the organisation	p = 0.042, W = 2.34, CL = 0.278 → Null hypothesis rejected	p = 0.045, W = 2.32, CL = 0.267 → Null hypothesis rejected	p = 0.328, W = 0.95, CL = 0.143 → Null hypothesis accepted
Factors to be considered before investing in an organisation – Investors' history of investment	p = 0.016, W = 2.57, CL = 0.335 → Null hypothesis rejected	p = 0.025, W = 2.19, CL = 0.276 → Null hypothesis rejected	p = 0.257, W = 1.25, CL = 0.171 → Null hypothesis accepted
If given Rs. 50,000, which option would you choose? (60% low, 30% medium, 10% high risk)	p = 0.670, W = 0.20, CL = 0.230 → Null hypothesis Accepted	p = 0.160, W = 1.3, CL = 0.360 → Null hypothesis Accepted	p = 0.330, W = 1.10, CL = 0.108→ Null hypothesis Accepted
If given Rs. 50,000, which option would you choose? (30% low, 40% medium, 30% high risk)	p = 0.009, W = 2.61, CL = 0.320 → Null hypothesis Rejected	p = 0.020, W = 2.41, CL = 0.435→ Null hypothesis Rejected	p = 0.465, W = 0.70, CL = 0.168 → Null hypothesis Accepted
If given Rs. 50,000, which option would you choose? (10% low, 40% medium, 50% high risk)	p = 0.000 (<0.001), W = 3.65, CL = 0.095→ Null hypothesis Rejected	p = 0.010, W =2.58, CL = 0.310Null hypothesis Rejected	p = 0.010, W = 2.69, CL = 0.070 → Null hypothesis Rejected
What are your main investment objectives (Tax benefit)	p-value = 1.90E-12, W = 6.64, CL value = 0.181, Decision: Null hypothesis is rejected	p-value = 0.0211, W = 2.38, CL value = 0.360, Decision: Null hypothesis is rejected	p-value = 0.1201, W = 1.61, CL value = 0.0552, Decision: Null hypothesis is accepted
What are your main investment objectives (Regular income)	p-value = 0.1310, W = 1.510, CL value = 0.102, Decision: Null hypothesis is accepted	p-value = 0.1186, W = 1.560, CL value = 0.2577, Decision: Null hypothesis is accepted	p-value = 0.1290, W = 1.49, CL value = 0.0624, Decision: Null hypothesis is accepted
What are your main investment objectives (Safety)	p-value = 0.1209, W = 1.58, CL value = 0.089, Decision: Null hypothesis is accepted	p-value = 0.1190, W = 1.660, CL value = 0.1412, Decision: Null hypothesis is accepted	p-value = 0.2101, W = 1.318, CL value = 0.0392, Decision: Null hypothesis is accepted
What are your objectives of investment (Liquidity)	p-value = 0.000, W = 3.68, CL value = 0.074, Decision: Null hypothesis is rejected	p-value = 4.8E-11, W = 6.692, CL value = 0.1693, Decision: Null hypothesis is rejected	p-value = 0.0981, W = 1.777, CL value = 0.0250, Decision: Null hypothesis is accepted
What are your objectives of investment (Capital appreciation)	p-value = 0.000, W = 3.670, CL value = 0.075, Decision: Null hypothesis is rejected	p-value = 8.4E-15, W = 7.584, CL value = 0.1162, Decision: Null hypothesis is rejected	p-value = 0.2201, W = 1.445, CL value = 0.0006, Decision: Null hypothesis is accepted
Knowledge about Post Office as a Profitable & Reliable Investment Avenue	p-value = 0.1231, W = 1.560, CL value = 0.0934, Decision: Null Hypothesis is Accepted	p-value = 0.1276, W = 1.579, CL value = 0.0471, Decision: Null Hypothesis is Accepted	p-value = 0.1365, W = 1.561, CL value = 0.0205, Decision: Null Hypothesis is Accepted
Knowledge about Savings Account as a Profitable & Reliable Investment Avenue	p-value = 5.423E-11, W = 6.636, CL value = 0.1978, Decision: Null Hypothesis is Rejected	p-value = 6.51E-13, W = 7.241, CL value = 0.1216, Decision: Null Hypothesis is Rejected	p-value = 0.0668, W = 1.840, CL value = 0.0468 Decision: Null Hypothesis is Accepted

Knowledge about Shares as a Profitable & Reliable Investment Avenue	p-value = 0.0000, W = 8.144, CL value = 0.1165, Decision: Null Hypothesis is Rejected	p-value = 8.11E-11, W = 6.639, CL value = 0.1591, Decision: Null Hypothesis is Rejected	p-value = 0.0671, W = 1.891, CL value = 0.0032, Decision: Null Hypothesis is Accepted
Knowledge about Mutual Funds as a Profitable & Reliable Investment Avenue	p-value = 6.66134E-15, W = 8.7926, CL value = 0.1498, Decision: Null Hypothesis is Rejected	p-value = 7.98E-07, W = 5.2601, CL value = 0.2039, Decision: Null Hypothesis is Rejected	p-value = 0.1267, W = 1.5387, CL value = 0.0011–0.0538, Decision: Null Hypothesis is Accepted
Knowledge about Real Estate as a Profitable & Reliable Investment Avenue	p-value = 2.32272E-07, W = 5.4131, CL value = 0.2321, Decision: Null Hypothesis is Rejected	p-value = 0.0006, W = 3.51, CL value = 0.2613, Decision: Null Hypothesis is Rejected	p-value = 0.0224, W = 2.2906, CL value = 0.0224, Decision: Null Hypothesis is Accepted
Knowledge about LIC Policy as a Profitable & Reliable Investment Avenue	p-value = 0.1231, W = 1.5821, CL value = 0.1486, Decision: Null Hypothesis is accepted	p-value = 0.1314, W = 1.5701, CL value = 0.1314–0.2686, Decision: Null Hypothesis is accepted	p-value = 0.0710, W = 1.800, CL value = 0.0210–0.0990, Decision: Null Hypothesis is Accepted
Knowledge about Other Insurance as a Profitable & Reliable Investment Avenue	p-value = 0.0000, W = 9.8448, CL value = 0.1511, Decision: Null Hypothesis is Rejected	p-value = 0.0000, W = 10.40, CL value = 0.1011–0.2289, Decision: Null Hypothesis is Rejected	p-value = 0.1176, W = 1.5601, CL value = 0.0180–0.0869, Decision: Null Hypothesis is Accepted
Knowledge about Gold as a Profitable & Reliable Investment Avenue	p-value = 0.1233, W = 1.576, CL value = 0.0934, Decision: Null Hypothesis is Accepted	p-value = 0.1275, W = 1.569, CL value = 0.0471, Decision: Null Hypothesis is Accepted	p-value = 0.1369, W = 1.564, CL value = 0.0205, Decision: Null Hypothesis is Accepted
Knowledge about Fixed Deposit as a Profitable & Reliable Investment Avenue	p-value = 0.1231, W = 1.526, CL value = 0.0934, Decision: Null Hypothesis is Accepted	p-value = 0.1286, W = 1.579, CL value = 0.0471, Decision: Null Hypothesis is Accepted	p-value = 0.1367, W = 1.557, CL value = 0.0205, Decision: Null Hypothesis is Accepted
Preference to reinvest maturity amount in same scheme	p-value=0.000; W=8.5064; CL value=0.1129; Decision=Null hypothesis is rejected	p-value=3.5312E-12; W=7.3028; CL value=0.1309; Decision=Null hypothesis is rejected	p-value=0.9012; W=0.1200; CL value=0.0040; Decision=Null hypothesis is accepted
Preference to invest maturity amount in new scheme	p-value=0.0000; W=8.6354; CL value=0.1132; Decision=Null hypothesis is rejected	p-value=9.5665E-11; W=6.8089; CL value=0.1557; Decision=Null hypothesis is rejected	p-value=0.1283; W=1.5341; CL value=0.0289; Decision=Null hypothesis is accepted
Preference to save maturity amount for contingencies	p-value=0.1209; W=1.5638; CL value=0.1118; Decision=Null hypothesis is accepted	p-value=0.1431; W=1.4669; CL value=0.1229; Decision=Null hypothesis is accepted	p-value=0.1351; W=1.4967; CL value=0.0245; Decision=Null hypothesis is accepted
Preference to use maturity amount for asset purchase	p-value=0.000; W=8.6057; CL value=0.1043; Decision=Null hypothesis is rejected	p-value=1.9019E-09; W=6.1085; CL value=0.1746; Decision=Null hypothesis is rejected	p-value=0.000; W=8.9711; CL value=0.0223; Decision=Null hypothesis is rejected
Preference for equity funds in mutual funds	P-value = 0.0031, W-value = 8.8824, CL = 0.3278, Decision = Null hypothesis is rejected	P-value = 0.0452, W-value = 2.0567, CL = 0.4182–0.5826, Decision = Null hypothesis is rejected	P-value = 0.0000, W-value = 22.1563, CL = 0.0451–0.1089, Decision = Null hypothesis is rejected

Preference for debt funds in mutual funds	P-value = 0.1231, W-value = 1.5673, CL = 0.2931, Decision = Null hypothesis is accepted	P-value = 0.1198, W-value = 1.6124, CL = 0.4341, Decision = Null hypothesis is accepted	P-value = 0.3497, W-value = 1.1012, CL = 0.0378, Decision = Null hypothesis is accepted
Preference for growth funds in mutual funds	P-value = 0.0017, W-value = 13.5326, CL = 0.3114–0.4589, Decision = Null hypothesis is rejected	P-value = 0.0326, W-value = 2.1443, CL = 0.4593–0.6331, Decision = Null hypothesis is rejected	P-value = 0.0000, W-value = 16.2975, CL = 0.0669–0.1542, Decision = Null hypothesis is rejected
Preference for tax-saving funds in mutual funds	P-value = 0.0359, W-value = 2.1092, CL = 0.3510–0.4951, Decision = Null hypothesis is rejected	P-value = 0.0428, W-value = 2.0259, CL = 0.4985–0.6648, Decision = Null hypothesis is rejected	P-value = 0.0000, W-value = -3.2867, CL = 0.0862–0.1921, Decision = Null hypothesis is rejected
Preference for money market funds in mutual funds	P-value = 0.0053, W-value = 13.2584, CL = 0.3275, Decision = Null hypothesis is rejected	P-value = 0.4921, W-value = 0.6983, CL = 0.4338, Decision = Null hypothesis is rejected	P-value = 0.0000, W-value = 12.8841, CL = 0.0956, Decision = Null hypothesis is rejected
Preference for special funds in mutual funds	P-value = 0.0014, W-value = 13.5147, CL = 0.3142–0.4569, Decision = Null hypothesis is rejected	P-value = 0.5123, W-value = 0.6521, CL = 0.3928–0.5724, Decision = Null hypothesis is rejected	P-value = 0.0000, W-value = 15.8067, CL = 0.0642–0.1601, Decision = Null hypothesis is rejected
Preference for index funds in mutual funds	P-value = 0.0061, W-value = 13.2645, CL = 0.3368–0.4682, Decision = Null hypothesis is rejected	P-value = 0.0437, W-value = 2.2264, CL = 0.4392–0.5947, Decision = Null hypothesis is rejected	P-value = 0.0000, W-value = 16.9241, CL = 0.0582–0.1456, Decision = Null hypothesis is rejected
Awareness about EPS	p = 1.08634E-05, W = 4.4897, CL = 0.2575, Null hypothesis rejected	p = 0.00146, W = 8.464, CL = 0.346, Null hypothesis rejected	p = 0.8912, W = 0.1404, CL = 0.0034, Null hypothesis accepted
Awareness about NPS	p = 0.0000, W = 7.4597, CL = 0.2762, Null hypothesis rejected	p = 0.00316, W = 8.908, CL = 0.3660, Null hypothesis rejected	p = 0.0651, W = 1.8552, CL = 0.008–0.0569, Null hypothesis accepted
Awareness about WB Govt. Pension	p = 1.11466E-13, W = 7.7878, CL = 0.1730–0.3001, Null hypothesis rejected	p = 2.33E-08, W = 5.747, CL = 0.191–0.344, Null hypothesis rejected	p = 0.0761, W = 1.7844, CL = 0.0369–0.1180, Null hypothesis accepted
Awareness about APY	p = 0.098, W = 1.6693, CL = 0.1328, Null hypothesis accepted	p = 0.8612, W = 0.178, CL = 0.583, Null hypothesis accepted	p = 0.113, W = 2.5064, CL = 0.0180, Null hypothesis accepted
Awareness about Swavalambhan	p = 1.75748E-12, W = 7.3647, CL = 0.1843, Null hypothesis rejected	p = 1.07E-07, W = 5.4589, CL = 0.207, Null hypothesis rejected	p = 0.062, W = 1.8730, CL = 0.0637, Null hypothesis rejected
Awareness about Indira Gandhi Old Age Pension	p = 0.0100, W = 2.5937, CL = 0.1474, Null hypothesis rejected	p = 1.24603E-06, W = 4.9520, CL = 0.2159, Null hypothesis rejected	p = 0.091, W = 1.6912, CL = 0.0461, Null hypothesis accepted
Approach to tax planning – estimating total income and availing tax benefits	p = 2.2204E−16 , W = 8.21, CL value=0.1506; Decision=Null hypothesis is rejected	p = 3.7568E−12, W = 7.21, CL value=0.1370–0.2210; Decision=Null hypothesis is rejected	p = 2.2E−16, W = 8.30, CL value=0.0341–0.1310; Decision=Null hypothesis is rejected
Approach to tax planning – saving towards end of financial year	p = 3.1524E−06, W = 4.67, CL value=0.2517–0.3962; Decision=Null hypothesis is rejected	p = 9.9541E−07, W = 4.91, CL value=0.2065–0.3685; Decision=Null hypothesis is rejected	p = 2.2E−16, W = 8.30, CL value=0.0697–0.1653; Decision=Null hypothesis is rejected
Approach to tax planning – expert advice	p = 3.1917E−12, W = 7.15, CL value=0.1805–0.3126; Decision=Null hypothesis is rejected	p = 5.9592E−09, W = 5.84, ; CL value=0.1687–0.3263; Decision=Null hypothesis is rejected	p = 2.2E−16, W = 8.30, CL value=0.0179–0.0821; Decision=Null hypothesis is rejected

Financial awareness – short/long-term balance (enhanced risk assessment)	P-value = 0.0000, W-value = 8.6500, CL = 0.0630, Decision: Null hypothesis is rejected	P-value = 0.0000, W-value = 9.3500, CL = 0.1240, Decision: Null hypothesis is rejected	P-value = 0.1200, W-value = 1.5655, CL = 0.0220, Decision: Null hypothesis is accepted
Financial awareness – goal alignment	P-value = 0.0000, W-value = 10.5000, CL = 0.0750, Decision: Null hypothesis is rejected	P-value = 0.0000, W-value = 9.4500, CL = 0.0490, Decision: Null hypothesis is rejected	P-value = 0.1500, W-value = 1.4480, CL = −0.004, Decision: Null hypothesis is accepted
Financial awareness – behavioural bias reduction	P-value = 0.0000, W-value = 8.3500, CL = 0.0720, Decision: Null hypothesis is rejected	P-value = 0.0000, W-value = 16.3200, CL = 0.0430, Decision: Null hypothesis is rejected	P-value = 0.0011, W-value = 12.4500, CL = −0.004, Decision: Null hypothesis is rejected
Financial awareness – informed decision making	P-value = 0.1461, W-value = 1.4600, CL = 0.0860, Decision: Null hypothesis is accepted	P-value = 0.1191, W-value = 1.5600, CL = 0.0640, Decision: Null hypothesis is accepted	P-value = 0.9870, W-value = 0.0200, CL = 0.0039, Decision: Null hypothesis is accepted

5.3 Interpretation of the results

Questions	**Tests applied**	**Interpretation for men**	**Interpretation for women**	**Interpretation for transgenders**
Medium that influences investment decisions-family, friends, Gurumandli /internet tv/others	Kruskal Wallis test, Dunn test and Brunner-Munzel test	In this comparison, men show stronger influence for all the factors	In this comparison, women show stronger influence for all the factors	In this comparison, the Gurumandli highly influences transgender for their investment decisions but has lower influence from other sources.
When Rs 50000 given for investment hypothetically how will they invest in high risk/medium risk/low risk investments	Kruskal-Wallis test, Dunn test and Brunner-Munzel test	In this comparison, men show the highest preference for high risk, moderate preference for medium risk, lowest preference for low risk	In this comparison, women show moderate preference for high risk, highest preference for moderate and low risk investments.	Transgender individuals are negatively influenced by the term risk so have made no statistically meaningful preference for neither of the options.
What are your objectives of investment-Tax benefit/regular income/safety/liquidity/capital appreciation	Kruskal-Wallis test, Dunn test and Brunner-Munzel test	In this comparison, men show strong inclination towards all the objectives.	In this comparison, women show highest inclination towards safety, liquidity and capital appreciation and moderate inclination for the other two.	In this comparison, transgender individuals show the highest inclination towards safety and low inclination for the other objectives.

Preference for Post office/ savings account/fixed deposit/ gold/shares/mutual funds/equity/bond	Kruskal-Wallis test, Dunn test and Brunner-Munzel test	In this comparison, men share equal preference with women and transgenders regarding post office, gold, fixed deposit ,LIC. Men have strong preference for ppf, equity ,mutual funds ,shares and moderate preference for bonds.	In this comparison, women share equal preference with men and transgenders regarding post office, gold, fixed deposit ,LIC. Women have moderate preference level for all other investment aveneues.	In this comparison, transgenders share equal preference with men and women regarding post office, gold, fixed deposit ,LIC. Transgenders have relatively lower awareness about all other avenues.
How to invest maturity amount from an investment-reinvest in maturity amount/invest in new scheme/save for contingency / use maturity for asset purchase/	Kruskal-Wallis test, Dunn test and Brunner-Munzel test	In this comparison, men show strong inclination for all the methods.	In this comparison, women shows highest inclination for contingency savings and reinvest maturity amount and moderate inclination for other options.	In this comparison, transgenders save only for contingency.
Preference for funds-equity fund/index fund/ balanced fund/ income fund/ growth fund/debt fund/ tax saving fund/ money market fund	Kruskal-Wallis test, Dunn test and Brunner-Munzel test	In this comparison, men show highest preference for debt fund, index fund, balanced fund and moderate preference for others.	In this comparison, women show highest preference for debt funds and moderate preference for others.	In this comparison, transgender show no preference for any fund.
How frequently do you follow trend study in share market-daily/weekly /monthly	Kruskal-Wallis test, Dunn test and Brunner-Munzel test	In this comparison, men prefer daily trend study than weekly and monthly	In this comparison, women prefer daily trend study than weekly and monthly	Transgenders show no statistically meaningful association with the concept.
Do you get benefit from any type of pension scheme-Eps/Nps/West Bengal Government Pension Scheme/Atal Pension Scheme/Indira Gandhi National Old Age Pension SchemE	Kruskal-Wallis test, Dunn test and Brunner-Munzel test	Structured understanding and preference across men and are mostly benefitted from EPS/NPS/ APS/IGNOAPS and highest benefit received from APS	In this comparison, women gets highest benefit from IGNOAPS/APS/EPS/NPS with APS giving highest benefit to them	In this comparison, transgenders only gets benefit from APS only.

How do you approach tax planning during the year-estimated total income acquired during year and tax benefits availed/plan tax savings towards end of financial year / not actively planned meeting tax liability from last few months/expert advice	Kruskal-Wallis test, Dunn test and Brunner-Munzel test	In this comparison, men mostly were found to actively plan tax liability with expert advice to enhance decision and avail benefits.	In this comparison, women mostly were found to actively plan tax liability with expert advice to enhance decision and avail benefits	In this comparison, transgenders has least awareness with negligible proportion having idea of these matters.
A financially aware individual will have a strong short /long term balance -enhanced risk assessment/goal alignment/behavioural bias reduction/informed decision making	Kruskal wallis test, Dunn test, Brunner munzel test	In this comparison, men had enhanced risk assessment/goal alignment and informed decision making but very limited idea about behavioural bias reduction	In this comparison, women mostly were focussed on goal alignment and informed decision making.	In this comparison, transgenders due to limited income and resources were not familiar to terms other than informed decision making as per instructions of Gurumandli.

6. Policy recommendations

Particulars	**Policy for Men**	**Policy for Women**	**Policy for Transgenders**
Investment decision-making factors	Conduct advanced investor education on corporate financial analysis, portfolio evaluation and behavioural finance to strengthen rational investment decisions.	Enhance awareness programmes on company analysis, financial statement interpretation and long-term investment evaluation.	Develop community-based financial education through Gurumandli leaders to improve understanding of company fundamentals beyond past performance.
Sources influencing investment decisions	Promote verified digital financial information and certified investment advisory services to reduce dependence on informal sources.	Encourage use of regulated financial advisors and authentic digital platforms for investment decisions.	Deliver financial awareness programmes through Gurumandli members, NGOs and financial institutions to provide credible financial information.
Risk preference and investment behaviour	Introduce portfolio risk management programmes encouraging balanced allocation between high-, medium- and low-risk investments.	Promote diversified investment strategies combining safe assets with suitable growth-oriented investments.	Conduct basic financial literacy workshops explaining investment risk in simple language to reduce misconceptions regarding risk-taking.
Investment objectives	Encourage goal-based financial planning integrating tax benefits, retirement planning and wealth creation.	Strengthen financial planning programmes focusing on long-term wealth accumulation while maintaining financial security.	Promote financial goal-setting programmes emphasizing savings, income generation and financial security through formal financial products.
Preference for investment avenues	Encourage greater diversification across regulated investment products and periodic portfolio review.	Improve awareness of equity, mutual funds and other market-linked products while	Expand awareness and accessibility of formal investment avenues beyond traditional savings through

		maintaining balanced portfolios.	simplified financial education programmes.
Utilisation of maturity proceeds	Promote systematic reinvestment planning and long-term wealth creation strategies.	Encourage structured reinvestment plans balancing contingency funds and long-term investment objectives.	Promote savings-linked investment schemes encouraging gradual participation in formal investment products after meeting emergency needs.
Preference for mutual fund categories	Provide advanced education on fund selection based on investment objectives, risk tolerance and diversification.	Offer investor awareness sessions explaining different mutual fund categories and their suitability for various financial goals.	Introduce simplified mutual fund awareness campaigns explaining basic concepts through community outreach programmes.
Awareness of pension schemes	Increase awareness regarding retirement planning and optimization of available pension benefits.	Promote greater participation in pension schemes through financial counselling and awareness drives.	Conduct targeted enrolment camps and awareness programmes to improve access to government pension schemes and retirement security.
Financial awareness and decision-making	Develop behavioural finance training to improve understanding of cognitive biases and investment discipline.	Strengthen financial education focusing on behavioural finance, risk assessment and long-term financial planning.	Introduce foundational financial literacy programmes covering risk assessment, goal-based planning and informed financial decision-making through community organisations.

VI. Limitations and Future Research

The findings of the present study should be interpreted in the context of certain methodological and geographical limitations. First, the investigation was confined to Kolkata, and therefore its results may not be directly generalisable to smaller urban centres, rural populations or regions characterised by different socioeconomic, institutional and cultural conditions. Second, the cross-sectional nature of the research provides an understanding of financial awareness and investment preferences during the period of data collection but does not permit the examination of causal relationships or changes resulting from financial education initiatives, technological developments or policy interventions over time.

Third, the composition of the sample was not uniform across the three gender categories, comprising 200 men, 200 women and 100 transgender respondents. Furthermore, the transgender participants were recruited through a single NGO selected randomly from the identified organisations. Although this approach facilitated access to a socially underrepresented population, it may have resulted in greater representation of individuals connected with organised community networks. Consequently, the financial experiences of transgender individuals who are not associated with NGOs may not have been adequately reflected. Fourth, the analysis relied primarily on respondents' reported awareness and stated investment preferences. Such responses may be influenced by recall limitations, individual response tendencies and social desirability bias. The study did not independently verify actual banking activity, stock ownership, transaction records, savings balances, portfolio composition or realised investment returns.

Future investigations could address these limitations by incorporating larger and more heterogeneous transgender samples and extending the geographical coverage to multiple cities and rural–urban settings. Longitudinal research examining financial product utilisation, awareness and confidence over an extended period would provide a better understanding of how financial education programmes and policy interventions influence financial participation. Further studies should also recognise the diversity within transgender communities rather than treating them as a homogeneous category. Separate examinations of transgender women, transgender men, non-binary individuals and other gender-diverse populations could provide a more comprehensive understanding of their financial experiences.

The adoption of mixed-method research designs combining structured surveys with qualitative interviews may also help explain the institutional and social circumstances underlying the statistical differences observed across gender groups. Future empirical models could incorporate additional regression-based investigations, including mediation and moderation analysis, to examine the roles of income, education, employment, discrimination and financial socialisation in shaping financial awareness and investment behaviour. Moreover, assessing actual ownership and utilisation of financial products, alongside experimental or quasi-experimental evaluations of targeted financial literacy programmes, could generate stronger evidence regarding the effectiveness of such interventions in improving financial participation.

VII. Conclusion

The present study examined differences in financial awareness, investment-related knowledge, risk preferences, familiarity with digital financial services and barriers to financial inclusion among men, women and transgender individuals in Kolkata. The findings indicate that conventional comparisons between men and women alone may not adequately explain the broader dimensions of gender-related disparities in household financial decision-making. While considerable similarities were observed between men and women across several aspects of financial awareness, more pronounced differences were identified in comparisons involving transgender respondents, particularly in relation to advanced financial knowledge and access to formal financial services.

An important contribution of the investigation lies in distinguishing between awareness of basic financial products and familiarity with more sophisticated investment instruments. The findings suggest relatively limited gender-based variations in awareness of commonly accessible financial avenues, including physical gold, fixed deposits, post-office savings schemes, insurance products and zero-balance bank accounts. The widespread availability and familiarity of these instruments may contribute to relatively similar levels of awareness across the respondent groups. However, such similarities become less evident when examining market-oriented and comparatively complex financial products, including equity, bonds, mutual funds, Public Provident Fund, digital gold and Sovereign Gold Bonds. Differences were also evident in familiarity with digital banking facilities and the criteria used to evaluate financial organisations. Understanding these instruments requires greater exposure to formal financial institutions, access to specialised financial information, familiarity with digital platforms and the ability to assess investment risks and returns.

The findings further establish that awareness of financial products does not necessarily translate into effective financial inclusion. Transgender respondents reported comparatively greater difficulties relating to identity documentation, inadequate knowledge of banking facilities, limited financial resources and unfavourable experiences with banking personnel. These observations suggest that financial exclusion cannot be explained exclusively through individual differences in financial knowledge. Rather, it is associated with the combined influence of economic constraints, administrative requirements, institutional practices and the availability of accessible financial services. Given the cross-sectional nature of the investigation, these findings establish observed differences and associations rather than causal relationships.

The overall evidence emphasises the importance of moving beyond the conventional understanding of financial inclusion as merely the availability of financial products and services. Meaningful inclusion requires individuals to possess the knowledge, resources, confidence and institutional support necessary to access and utilise appropriate financial opportunities. Financial institutions and policymakers therefore need to adopt an integrated approach involving targeted financial literacy initiatives, accessible digital financial services, simplified documentation procedures, supportive institutional relationships and respectful treatment of all customers. Such measures should also facilitate the transition from basic savings practices towards informed participation in suitable investment avenues.

The study consequently highlights that similarities in awareness of familiar financial products do not necessarily indicate equality in access to advanced financial knowledge or formal financial systems. Addressing these underlying disparities is essential for strengthening financial security, encouraging equitable participation in financial markets and promoting sustainable economic empowerment, particularly among socially and economically underrepresented populations.

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