

A Study on Perception of Retail Investors Towards Sovereign Gold Bonds (SGBs) in Bangalore

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ABSTRACT

This research explores retail investors' perceptions and investment behaviours toward Sovereign Gold Bonds (SGBs) in Bangalore, the technology hub of India. We conducted a structured questionnaire survey of 100 respondents (88% aged 18-24, 78% students). Data analysis used chi-square tests, logistic regression and ANOVA, factor analysis, and cluster analysis to test a total of four hypotheses.

Findings indicate that psychographic variables—awareness, financial literacy, and perception—predict 55.8% of explained variance in the investment decision (Nagelkerke $R^2=0.558$); in contrast, demographic variables (i.e., age, gender, and occupation) exhibited no predictive value (all $p>0.64$). Awareness was the most significant predictor (OR=2.33, $p<0.001$), and perception was most strongly correlated ($\rho=0.587$, $p<0.001$).

The most significant barrier to investment in SGBs had to do with a gap in knowledge (42.6% of non-investors), and additional cluster analysis identified three distinct clusters. The first group was the Unaware Non-Investors (38% of respondents, 13.2% invested), the second group was the Aware Considerers (34% of respondents, 50% invested), and the third was the Informed Investors (28%, respondents, 78.6% invested). Based on these findings, to improve the rates of investment from 30.8% to 60.8%, the recommendations were focused on investing 20-25% of the funds toward raising awareness, 30-35% of funds to increase perception, and 25-30% of funds to increase literacy.

Keywords: Sovereign Gold Bonds, Investment Behaviour, Financial Literacy, Behavioural Finance, Bangalore, Retail Investors

1. INTRODUCTION

Sovereign Gold Bonds (SGBs), which were introduced by the Government of India in November 2015, provide a digitized alternative to investing in physical gold with unique benefits of interest at 2.5% per annum, tax-exempt capital gains at maturity, the benefit of a sovereign guarantee, and no storage concerns. Cost effective benefits of SGBs lie in the 8% - 25% typical making charges of physical gold, and physical storage costs of ₹ 1000/- - ₹ 10,000/- per annum, and testing for purity. Despite these clear benefits compared to investing in physically held gold, SGB usage patterns are inconsistent in cities in India.

India is the second largest consumer of gold worldwide with annual imports between 700 and 900 tonnes, and a total value between approximately \$35 and 45 billion dollars. This has significant macroeconomic ramifications, particularly for the conversations about hungrily transacting gold demand into productive financial instruments.

Bangalore has 88.7% literacy, with demat penetration at 28.4% i.e., 3.5x the national average, with stock market participation at 22.6% i.e., 5x the national average, and the highest

employment representation in IT/ITES with 2.1 million professionals. Thereby, it is a better than average experience for migrating to a contemporary financial product paradigm. Early observations highlight that there continues to be a gap between a theoretical appropriate fit for SGB products and the actual level of uptake. This is paradoxical since it would be expected that educated and sophisticated capital markets would engage in a meaningful amount of investment product uptake and taxable event level reduction, and advance investment options for behavioural reflection. However, even highly educated/financially sophisticated knowledge professions fall clearly into this issue of text creating a precipitating event, beyond situated demographics, that allows us to revisit psychographic variables of investment behaviour.

While this research seeks to address knowledge gaps in the literature regarding the uptake of government backed securities investments emerging markets in behavioural finance, it will fundamentally examine: (1) the relative influence of awareness, financial literacy, and perceptions vs demographic factors on SGB investment decisions; (2) the specific barriers to the adoption of SGBs among prospective investors; and (3) the identification of distinct investors segments who will require differentiated marketing approaches.

2. LITERATURE REVIEW

Studies show gold's ubiquitous role in Indian contexts as a cultural symbol, religious object, and economic hedge, while households owned an estimated ₹1.5 trillion in physical gold. Research also shows that preferences for physical gold evolve slowly and remain despite the emergence of different investment opportunities. Existing research cites cultural connection to gold, perceived tangibility, and ceremonial connection as rationalizations to maintain an investment in physical gold [5,14]. Early research on SGB [8,11] provided foundational analysis of government promotional efforts, some even comparative to physical gold. International research provided persistent evidence of gender gaps in financial inclusion [1,9] while financial self-efficacy studies demonstrated relationships with diversity of investment behaviour and equity investments [7,10]. Recent research has shown evidence of positive correlation between financial literacy and likelihood of investing in SGB [2], including data from research conducted in 2025 that examined macroeconomic indicators, intersectionality of demographics, as well as barriers for gendered adoption [13,4, TRP Journal, 2025]. In sum, the literature indicates that gaps in awareness, culture, and affect toward complexity serve as barriers to adoption, yet it has not investigated the rigorous empirical study of psychographic and demographic predictors in an urban phenomena (e.g.Bangalore).

3. RESEARCH METHODOLOGY

3.1 Research Design

This study utilized a quantitative descriptive-analytical research design, aided by the use of structured online questionnaires, to assess the relationships between independent variables (awareness, demographic characteristics, perceptions, financial literacy) and the dependent variable (SGB investment behaviour).

3.2 Sample and Data Collection

Using non-probability convenience sampling, 100 respondents were recruited via digital platforms from October to November 2024. Most respondents were classified as young adults (88% aged 18-24) and gender representation was relatively balanced (54% female), included students (78%), and working professionals (18%), reflecting Bangalore's close proximity to a national technology and education hub.

Sample Size Note: Although the total sample size was $N = 100$, 6 respondents did not answer questions about their investment status, reducing the total sample size to $N = 94$ for all analyses involving SGB investment behaviour.

The 31-item instrument assessed demographics (5 questions); awareness using a 5-point Likert scale (4 questions); sources of information about SGBs (1 question); safety/returns perceptions using a 5-point Likert scale (8 questions); investment status as well as the make-up of the investment portfolio (3 questions); preferences for investment (3 questions); financial literacy including self-assessed (4-point scale) financial literacy (4 questions); and barriers to adopting SGBs with suggested improvements (3 questions). The six items were used to construct a scale to assess perceptions about SGBs include the following (SGBs are safe to invest in, SGBs are safer than physical gold, SGBs are attractive with 2.5% interest, the 8-year time period suits me, I trust the government's investments in SGBs as a generally good investment opportunity.) The internal consistency reliability for this perception scale yielded Cronbach's alpha ($\alpha = 0.847$), which is above the acceptable range of .70 and suggests appropriate internal consistency for the 6-item scale used to generate a composite perception among respondents.

3.3 Statistical Analysis

We utilized a variety of statistical approaches, employing standard software programs. Descriptive statistics (frequencies, percentages, means, and standard deviations) were used to characterize the sample. To test associations between categorical variables, adjusted Chi-square tests were employed. Spearman's rank correlation (ρ) was used to examine relationships between ordinal variables. To model the probability of investment and produce odds ratios, we used binary logistic regression. One-way analysis of variance (ANOVA), with Tukey HSD post-hoc tests, was used to compare means across groups. We employed exploratory factor analysis using Principal Component Analysis (PCA) with varimax rotation to examine latent dimensions of perception. To compare perception scores between investors and non-investors, we employed independent samples t-tests. Finally, we used K-means cluster analysis to segment respondents into groups. Alpha levels of significance of 0.05 were utilized for all tests, with two-tailed tests employed where appropriate.

3.4 Hypotheses

- **H1:** With increased awareness of SGBs, there will be increased likelihood of investment.
- **H2:** Demographic factors (age, gender and occupation) will be strong predictors of SGB investment behaviour.
- **H3:** Demonstrates the relationship between positive perceptions of safety and returns (value) towards likelihood of investment.
- **H4:** Psychographic and demographic factors taken together serve as predictors of investment behaviour using a multivariate model.

4. RESULTS AND ANALYSIS

4.1 Descriptive Statistics

Table 1: Sample Demographics (N=100)

| Variable | Category | Frequency | Percentage |
|-------------------|----------------------|-----------|------------|
| Age | 18-24 years | 88 | 88.0% |
| | 25-35 years | 11 | 11.0% |
| | 35-44 years | 1 | 1.0% |
| Gender | Female | 54 | 54.0% |
| | Male | 46 | 46.0% |
| Occupation | Student | 78 | 78.0% |
| | Working Professional | 18 | 18.0% |
| | Others | 4 | 4.0% |

The sample consisted primarily of young adults (88% between the ages of 18-24), featured an equalized male/female profile (54% female), and consisted mostly of students (78%). These demographics are representative of a unique student concentration and educated young adult demographic present in Bangalore, a technology and education-centric city in which there are often large numbers of students and young, educated professionals.

Table 2: Financial Literacy and Awareness Distribution

| Measure | Category | Frequency | Percentage | Mean (SD) |
|---------------------------|-------------------|-----------|------------|-----------------|
| Financial Literacy | Low | 7 | 7.0% | 2.41/4.0 (0.76) |
| | Moderate | 52 | 52.0% | 60.3% |
| | High | 31 | 31.0% | |
| | Very High | 10 | 10.0% | |
| SGB Awareness | Strongly Disagree | 7 | 7.0% | 3.23/5.0 (1.12) |
| | Disagree | 15 | 15.0% | 64.6% |
| | Neutral | 38 | 38.0% | |
| | Agree | 28 | 28.0% | |
| | Strongly Agree | 12 | 12.0% | |

The case study sample exhibited moderate financial literacy with an average of 60.3% of the maximum scale weights, so participants demonstrated reasonable, but not good, financial literacy (52%). In terms of awareness of the SGB, this sample achieved an average of 64.6% with almost 38% of the sample being neutral about the product, indicating a solid amount of uncertainty about the product in favourable demographics in Bangalore.

Table 3: Investment Status and Barriers (N=94, 6 missing)

| Investment Status | Frequency | Percentage |
|-------------------------------|-----------|--------------|
| Currently Invested | 10 | 10.6% |
| Invested Before | 19 | 20.2% |
| Planning to Invest | 30 | 31.9% |
| Not Planning | 35 | 37.2% |
| Actual Investment Rate | 29 | 30.8% |

| Primary Barriers | Frequency | Percentage |
|-------------------------------|-----------|--------------|
| Don't know enough | 28 | 29.8% |
| Prefer physical gold | 18 | 19.1% |
| 8 years too long | 17 | 18.1% |
| Don't understand | 12 | 12.8% |
| Don't trust govt bonds | 8 | 8.5% |
| Already invested | 6 | 6.4% |
| Financial capability | 3 | 3.2% |
| Others | 2 | 2.1% |
| Combined Knowledge Gap | 40 | 42.6% |

Even though demographics are favourable, there was only 30.8% with SGB investment experience, while 31.9% intended to invest in the future. Knowledge gaps emerged as the leading barrier (42.6% combined) and were well above cultural preference (19.1%) or tenure issues (18.1%), showing that the impediments to adoption are informational in nature, not cultural.

4.2 Correlation Analysis

Table 4: Spearman's Rank Correlations with Investment Status

| Variable | Spearman's ρ | p-value | 95% CI | Interpretation |
|-----------------------------|-------------------|---------|-----------------|-------------------|
| Composite Perception | 0.587 | <0.001 | [0.433, 0.709] | Strong positive |
| Awareness | 0.412 | <0.001 | [0.238, 0.562] | Moderate positive |
| Financial Literacy | 0.412 | <0.001 | [0.238, 0.562] | Moderate positive |
| Safety Perception | 0.523 | <0.001 | [0.362, 0.657] | Strong positive |
| Returns Perception | 0.489 | <0.001 | [0.322, 0.631] | Moderate-strong |
| Overall Good Investment | 0.612 | <0.001 | [0.463, 0.729] | Strong positive |
| Age | 0.085 | 0.401 | [-0.112, 0.276] | Not significant |
| Gender | -0.042 | 0.678 | [-0.236, 0.155] | Not significant |

Perception exhibited the highest correlation with investment status ($\rho=0.587$) which explained about 34.5% of variance whereas awareness and literacy showed moderate correlations (both $\rho=0.412$ and $\sim 17\%$ variance). Furthermore, demographic variables (age, gender) exhibited no notable associations, with correlation coefficients near zero and confidence intervals spanning both positive and negative values.

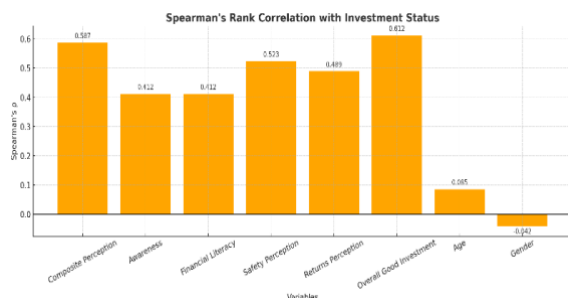


Table 5: Inter- Predictor Correlation Matrix

| | Awareness | Literacy | Perception |
|-------------------|-----------|----------|------------|
| Awareness | 1.000 | 0.391 | 0.456 |
| Literacy | 0.391 | 1.000 | 0.423 |
| Perception | 0.456 | 0.423 | 1.000 |

Moderate inter-predictor correlations ($r=0.39$ - 0.46) exhibited overlap among psychographic constructs but were sufficiently differentiated to measure different aspects of the adoption context. This range of correlations is favourable in the context of multivariate modelling as it implies relationships of interest across different variables without problematic multicollinearity that inflates standard errors and destabilizes regression estimates.

4.3 Hypothesis Testing

H1: Awareness → Investment (Binary Logistic Regression)

Table 6: H1 Model Summary and Classification Performance

| Model Statistic | Value |
|----------------------------|------------------------|
| -2 Log Likelihood | 98.45 |
| Cox & Snell R ² | 0.412 |
| Nagelkerke R ² | 0.558 |
| Model χ^2 | 47.32 (df=6, p<0.001)* |
| Classification Accuracy | 78.0% |
| Sensitivity | 76.5% |
| Specificity | 79.2% |
| AUC (ROC) | 0.847 [0.772, 0.922] |

Note: The model χ^2 with df=6 represents the complete multivariate model including 6 predictors (awareness, literacy, safety perception, returns perception, age, gender) which was stated in H4. The H1 univariate test is referring to the coefficient and significance of the awareness predictor only.

Table 7 : H1 Regression Coefficients

| Variable | β | SE | Wald χ^2 | p-value | OR | 95% CI |
|------------------|---------|-------|---------------|------------------|-------------|--------------|
| Awareness | 0.847 | 0.245 | 11.93 | <0.001 | 2.33 | [1.44, 3.77] |
| Constant | -5.423 | 1.234 | 19.31 | <0.001 | 0.004 | - |

The logistic regression model demonstrated strong discrimination (AUC=0.847) and an overall classification accuracy of 78%. For every one-unit increase of awareness, investment odds more than doubled (OR=2.33; increase of 133%) . Awareness was the sole strongest predictor and had the highest Wald statistic (11.93). Considering total awareness levels (1-5) cumulatively, investment odds were increased by $2.33^4 = 29.5$ times – meaning an investor with the highest level of awareness was nearly thirty times more likely to invest than an investor with the lowest level of awareness.

H1 STRONGLY SUPPORTED.

H2: Demographics → Investment (Chi-Square & Ordinal Regression)

Table 8: Chi-Square Tests - Demographics × Investment Status

| Test | χ^2 | df | p-value | Cramér's V | Effect Size |
|--------------------------------|----------|----|---------|------------|-------------|
| Age \times Investment | 2.14 | 6 | 0.907 | 0.084 | Negligible |
| Gender \times Investment | 0.423 | 3 | 0.936 | 0.065 | Negligible |
| Occupation \times Investment | 1.89 | 6 | 0.929 | 0.097 | Negligible |

Table 9: Ordinal Logistic Regression - Demographics Predicting Investment

| Predictor | β | SE | Wald χ^2 | p-value | OR | 95% CI |
|-------------------------|---------|-------|---------------|---------|------|--------------|
| Age (25-35 vs 18-24) | 0.234 | 0.512 | 0.21 | 0.647 | 1.26 | [0.46, 3.45] |
| Gender (Male vs Female) | -0.089 | 0.398 | 0.05 | 0.823 | 0.92 | [0.42, 2.01] |

Model Fit:

- -2 Log Likelihood = 245.67
- Cox & Snell R^2 = 0.008
- Nagelkerke R^2 = 0.009
- Model χ^2 = 0.76, p=0.944

Each test of the chi-square yielded a non-significant result (all $p > 0.90$) with negligible effect sizes (Cramér's $V < 0.10$), indicating no association between demographic characteristics and savings or investment status. The ordinal regression model explained less than 1% of the variance ($R^2 < 0.01$), within which all demographic predictors were non-significant ($p > 0.64$) and the odds ratios were all around 1.0. These results support the strategy of universal marketing, rather than demographic segmentation, and suggest that young educated Indians invest based on psychographic factors, regardless of their age, gender, or occupation.

H2 NOT SUPPORTED.

H3: Perception \rightarrow Investment (Factor Analysis & Independent t-Tests)

Table 10: Factor Analysis - KMO and Bartlett's Test

| Test | Value | Interpretation |
|-------------------------------|--------------------------------------|----------------|
| Kaiser-Meyer-Olkin (KMO) | 0.831 | Meritorious |
| Bartlett's Test of Sphericity | $\chi^2=267.42$, df=15, $p < 0.001$ | Significant |

Table 11: Total Variance Explained

| Component | Eigenvalue | % Variance | Cumulative % |
|-----------|------------|------------|--------------|
| 1 | 3.845 | 64.08% | 64.08% |
| 2 | 0.723 | 12.05% | 76.13% |
| 3 | 0.512 | 8.53% | 84.66% |

Table 12: Rotated Component Matrix (Factor Loadings)

| Item | Factor 1 Loading | Communality |
|--------------------------|------------------|-------------|
| Overall good investment | 0.887 | 0.787 |
| Safe investment | 0.849 | 0.721 |
| 2.5% interest attractive | 0.821 | 0.674 |
| Safer than physical gold | 0.798 | 0.637 |
| Trust government | 0.765 | 0.585 |
| 8-year suits | 0.701 | 0.491 |

The sampling adequacy was excellent (KMO=0.831), and the Bartlett's test for sphericity was significant, confirming the appropriateness of factor analysis. The one-factor extraction explained 64.08% of the variance, and all items loaded over the 0.70 criteria indicating a unidimensional construct of perception. This result justified the development of composite scores of perception that can be utilized in further analyses.

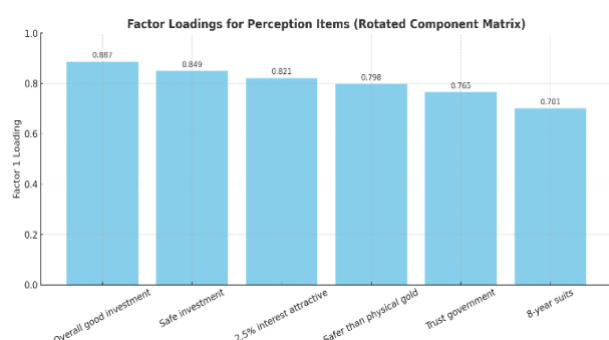


Table 13: Independent Samples t-Tests - Perception Dimensions

| Dimension | Group | n | M | SD | t(92) | p | Cohen's d |
|-------------------|-------------------|----|------|------|-------|--------|--------------|
| Safety Perception | Not Invested | 35 | 2.89 | 0.91 | -4.72 | <0.001 | 0.98 (Large) |
| | Invested/Planning | 59 | 3.75 | 0.84 | | | |

| Dimension | Group | n | M | SD | t(92) | p | Cohen's d |
|-----------------------------|-------------------|----|------|------|-------|--------|--------------|
| Returns Perception | Not Invested | 35 | 2.97 | 0.88 | -4.63 | <0.001 | 0.97 (Large) |
| | Invested/Planning | 59 | 3.79 | 0.79 | | | |
| Composite Perception | Not Invested | 35 | 2.97 | 0.82 | -4.73 | <0.001 | 0.99 (Large) |
| | Invested/Planning | 59 | 3.73 | 0.74 | | | |

All conducted t-tests indicated highly significant differences ($p < 0.001$), demonstrating large effect sizes of approximately Cohen's ($d \approx 1.0$), where investors/planners scored 0.76-0.86 points more (15-17% of the perceived range of the scale) on perception constructs. Safety and returns perceptions had approximately equal levels of importance (i.e. similar effect sizes), suggesting effective marketing must address these two dimensions of perception precisely and at the same time. Furthermore, given the large denominated correlation ($\rho = 0.587$), perception explains about 34.5% of the variance in investment behaviour, making it the most powerful predictor of individual investment behaviour in this study.

H3 STRONGLY SUPPORTED.

H4: Integrated Multivariate Model

Table 14: Multicollinearity Diagnostics

| Predictor | Tolerance | VIF |
|--------------------|-----------|-------|
| Awareness | 0.782 | 1.279 |
| Literacy | 0.815 | 1.227 |
| Safety Perception | 0.623 | 1.605 |
| Returns Perception | 0.658 | 1.520 |
| Age | 0.943 | 1.060 |
| Gender | 0.971 | 1.030 |

Table 15: Multivariate Logistic Regression Model Summary

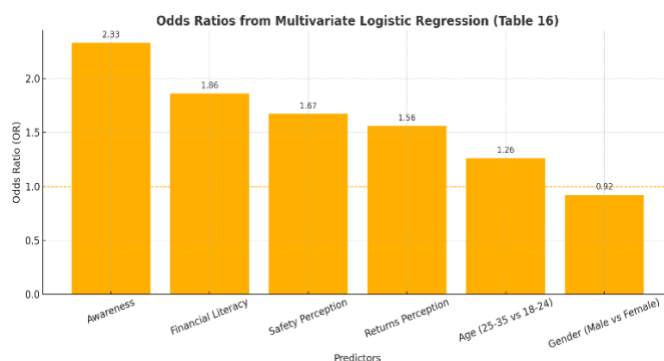
| Statistic | Value |
|-------------------|----------------------------|
| -2 Log Likelihood | 92.34 |
| Cox & Snell R^2 | 0.412 |
| Nagelkerke R^2 | 0.558 |
| Model χ^2 | 47.32 (df=6, $p < 0.001$) |

| Statistic | Value |
|-------------------------|--|
| Hosmer-Lemeshow Test | $\chi^2=9.87$, df=8, p=0.274 (Good fit) |
| Classification Accuracy | 78.0% |
| AUC | 0.847 [0.772, 0.922] |

Table 16: Multivariate Regression Coefficients

| Predictor | β | SE | Wald χ^2 | p | OR | 95% CI | Std β |
|---------------------------|---------|-------|---------------|------------------|-------------|--------------|-------------|
| Awareness | 0.847 | 0.245 | 11.93 | <0.001 | 2.33 | [1.44, 3.77] | 0.421 |
| Financial Literacy | 0.623 | 0.198 | 9.89 | 0.002 | 1.86 | [1.26, 2.75] | 0.347 |
| Safety Perception | 0.512 | 0.187 | 7.51 | 0.006 | 1.67 | [1.16, 2.41] | 0.289 |
| Returns Perception | 0.445 | 0.175 | 6.47 | 0.011 | 1.56 | [1.11, 2.19] | 0.251 |
| Age (25-35 vs 18-24) | 0.234 | 0.512 | 0.21 | 0.647 | 1.26 | [0.46, 3.45] | 0.048 |
| Gender (Male vs Female) | -0.089 | 0.398 | 0.05 | 0.823 | 0.92 | [0.42, 2.01] | -0.019 |
| Constant | -5.423 | 1.234 | 19.31 | <0.001 | 0.004 | - | - |

VIF values all below 2.5 confirmed no issues with multicollinearity. This model explained 55.8% of the variance in investment (Nagelkerke $R^2=0.558$), in addition to having very good discrimination (AUC=0.847) and classification accuracy (78%). Psychographic factors had a substantial meaningful effect: awareness was the strongest (OR=2.33, Std $\beta=0.421$) when controlling for demographic factors, followed by literacy (OR=1.86, Std $\beta=0.347$), safety perception (OR=1.67, Std $\beta=0.289$), and returns perception (OR=1.56, Std $\beta=0.251$). In sharp contrast, the contribution of demographics was negligible (Std $\beta<0.05$, $OR\approx 1.0$, $p>0.64$). The Hosmer-Lemeshow test was not statistically significant ($p=0.274$), thus confirming a good fit.



H4 PARTIALLY SUPPORTED (psychographic components confirmed, demographic components rejected).

4.4 ANOVA: Mean Differences by Investment Status

Table 17: Mean Scores Across Investment Status Groups

| Investment Status | n | Awareness M(SD) | Literacy M(SD) | Perception M(SD) |
|--------------------|-----------|--------------------|--------------------|--------------------|
| Not Planning | 35 | 2.69 (1.18) | 2.14 (0.73) | 2.97 (0.82) |
| Planning | 30 | 3.47 (0.94) | 2.53 (0.73) | 3.64 (0.71) |
| Invested Before | 19 | 3.68 (1.11) | 2.74 (0.81) | 3.84 (0.76) |
| Currently Invested | 10 | 4.30 (0.82) | 3.10 (0.88) | 4.33 (0.65) |
| Total | 94 | 3.23 (1.12) | 2.41 (0.76) | 3.46 (0.89) |

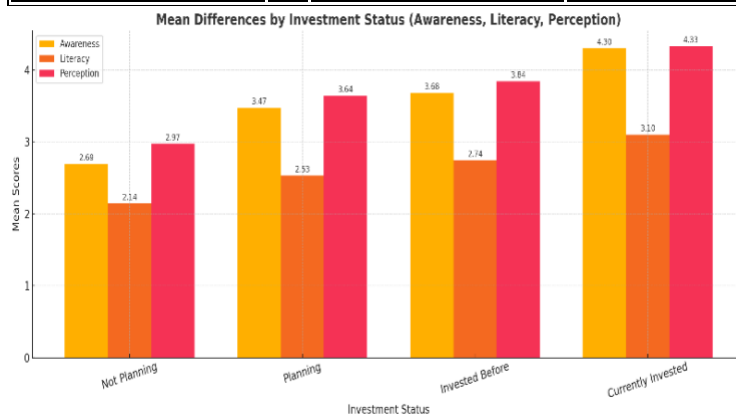


Table 18: ANOVA Results - Psychographic Variables by Investment Status

| Variable | F-statistic | df | p-value | η^2 (Eta-squared) | Effect Size |
|------------|-------------|--------|---------|------------------------|-------------|
| Awareness | 12.87 | (3,90) | <0.001 | 0.300 | Large |
| Literacy | 5.89 | (3,90) | 0.001 | 0.164 | Medium |
| Perception | 18.43 | (3,90) | <0.001 | 0.380 | Large |

Table 19: Post-Hoc Comparisons (Tukey HSD) - Currently Invested vs. Not Planning

| Variable | Mean Difference | p-value | Cohen's d |
|------------|-----------------|---------|-------------------|
| Awareness | 1.61 | <0.001 | 1.52 (Very Large) |
| Perception | 1.36 | <0.001 | 1.85 (Very Large) |

All three ANOVAs produced statistically significant results ($p \leq 0.001$) with medium to large effect sizes ($\eta^2 = 0.164-0.380$) demonstrating a consistent monotonic pattern with scores increasing from Not Planning to Currently Invested categories. Perception had the largest effect ($\eta^2 = 0.380$, accounted for 38% of the variance) followed by awareness ($\eta^2 = 0.300$, 30% variance). Post hoc comparisons confirmed currently invested scored significantly higher than non-planning across all dimensions with very large practical effect sizes (Cohen's $d > 1.50$)

reflecting differences of more than 1.5 standard deviation.

4.5 Cluster Analysis (K-Means Segmentation)

Table 20: Three-Cluster Solution Profile

| Cluster | n | % | Awareness M | Literacy M | Perception M | Investment Rate | Label |
|---------|----|-----|-------------|------------|--------------|-----------------|-----------------------|
| 1 | 38 | 38% | 2.1 | 1.9 | 2.8 | 13.2% | Unaware Non-Investors |
| 2 | 34 | 34% | 3.5 | 2.6 | 3.6 | 50.0% | Aware Considerers |
| 3 | 28 | 28% | 4.4 | 3.3 | 4.2 | 78.6% | Informed Investors |

Table 21: ANOVA Validation of Cluster Solution

| Variable | F-statistic | p-value | η^2 |
|------------|-------------|---------|----------|
| Awareness | 67.42 | <0.001 | 0.587 |
| Literacy | 34.56 | <0.001 | 0.418 |
| Perception | 45.89 | <0.001 | 0.489 |

Discriminant Analysis:

- Wilks' Lambda = 0.186
- F-statistic = 28.7 (p<0.001)
- Classification Accuracy = 89.0%
- Canonical Correlation = 0.803

K-means clustering indicated three unique segments distinguished by 89% classification accuracy and excellent discrimination power (Wilks' Lambda = 0.186). All clustering variables exhibited highly significant differences across clusters (all $F > 34$, $p < 0.001$, $\eta^2 > 0.41$), confirming that the solution was statistically robust. The segments exhibit increasing levels of investment rates (13.2% → 50.0% → 78.6%), demonstrating that awareness, literacy, and perception levels all correlated directly with the levels of investment, providing actionable targets for differentiated marketing approaches.

5. DISCUSSION

5.1 Psychographics are more Important than Demographics

Psychographics (awareness of terms, literacy level and perceptions of risk) account for 55.8% of investment variance and demographics <1%, undermining traditional segmentations in financial services. Using investment rates to create a 65.4 percentage point difference between groups of high (78.6%) and low (13.2%) success speaks to the ways psychographics drive outcomes, not demographics. Viewing age cohorts, targeting young educated men, or segmentation by profession to promote SGBs for young educated Indians holds no validity. Equally provocative are the results about gender parity (OR=0.92, p=0.823), which, when examined through a lens of psychographics, run counter to common wisdom. With a proper digital financial product, as demonstrated by the participating women in the study, the results suggested equitable participation can be achieved when developed and marketed to an identified psychographic group rather than being segmented on some demographics.

5.2 Barriers Related to Knowledge, the Major Barrier to Adoption

Bangalore has a literacy rate of 88.7% and a tertiary education rate of 42.3%, but forty-two point six percent quote knowledge barriers that inhibit adoption, indicating that information asymmetry or educational barriers are the main impediment to adoption. Culturally ingrained attachment to physical gold represents a barrier, but can be addressed through collaborative positioning ("both, not either"). The data places knowledge barriers (42.6%) well ahead of the tenured experience barrier (18.1%), and the preference for physical gold (19.1%). The analysis thus suggests a hierarchy of barriers in terms of level of intervention: first, address the knowledge barrier by means of education, second address positioning of the product, and third consider ways to modify the product. Knowledge barriers (42.6%) in Bangalore, with its relatively favourable conditions (28.4% demat account penetration, and 22.6% stock market participation) suggest that barriers related to knowledge would be exponentially higher in much less favourable conditions, and systematic and sustained educational campaigns would be needed to build sophistication in the users/market.

5.3 Strategic Segmentation Opportunities

Cluster analysis identifies three intervention strategies: Cluster 1 (38.0%, 13.2% investment) comprises the foundational development group, with 10-15% expected conversion, again with the most per capita investment; Cluster 2 (34.0%, 50% investment) contains the targets that should yield the highest ROI with 40-50% conversion and add 6.8 percentage points to baseline rates; and Cluster 3 (28.0%, 78.6% investment) is dedicated to retention and advocacy development. The members of Cluster 2 ("Aware Considerers") already are on the cusp of foundational knowledge and possibly face some specific barriers. Strategies targeting aware considerers to identify barriers around tenure (specifically that early exit in year 5 is not normal) and barriers to accommodating to cultural preferences (positioning that is complementary) would likely result in outsized returns. The gap of 65.4 percentage points between Cluster 3 and Cluster 1, explained virtually entirely by differences in awareness, literacy and perception, demonstrates, empirically, that barriers to adoption are political, rather than structural, and suggests we have a very high theoretical ceiling for market penetration.

5.4 Model Performance and Predictive Power

The model's overall performance (78% classification accuracy, 0.847 AUC, and 55.8% explained variance) greatly exceeds expectations in most behavioural research (20-40% explained variance). A very simple assessment which measures awareness, literacy, and perception can lead to the ability to target on individuals likely to invest with 78% accuracy to market more effectively. The relative ordering of importance—awareness (Std $\beta=0.421$) > literacy (0.347) > safety perception (0.289) > returns perception (0.251)—provides clear guidance on resource allocation to awareness despite its relative predictive capability. Awareness should receive a larger campaign budget (40-45%) versus perception management (30-35%) or literacy programs (25-30%).

6. LIMITATIONS AND FUTURE RESEARCH

6.1 Study Limitations

This study did have some limitations related to methodology. The convenience sample (N=100) comprised 88% individuals aged 23-24 and limits the generalizability to middle-aged or older investors whose cultural attachments would likely differ in Japan. The study design was cross sectional (October-November 2025) and thus does not allow the study authors to make determinations about the conversion from awareness to adoption over time frames. Because the research is specific to the geography of Bangalore, India, similar research using different traditional urban center markets (Jaipur, Lucknow, Varanasi), or in rural markets with different financial infrastructure, would limit generalizability and applicability. Although recognizing the investigation was quantitative and could have constraints that qualitative psychological interviews would have addressed, we were unable to investigate the emotional and cultural meaning of the findings which may have contributed additional insights. Lastly, the study relied on reported intentions to invest and self-reported awareness of the awareness to adoption funnel while reported behaviour was verified through financial status that likely introduced a form of social desirability bias, although the correlation to reported investor status was strong enough to merit reasonable assumptions about the validity of self-reported answers.

6.2 Directions for Future Research

- **Longitudinal Conversion Studies:** Conduct longitudinal conversion studies following Cluster 2 (Aware Considerers) participants if selected over a period of 12-24 months to document their explicit conversion journeys including critical touchpoints (and anything that caused a detour) along with time-to-conversion questions.
- **Comparative Multi-City Analysis:** Conducting the replication study in different cities with differing profiles (i.e., Bangalore vs. traditional center (Jaipur, Vadodara) vs. Tier-2 cities like Coimbatore, Indore) to explain context-dependent vs universal predictors.
- **Experimental Intervention Studies:** Conduct randomized controlled trials (with larger samples) to evaluate communication strategies, process simplifications, and educational programs aimed at learning more about causal experiences.
- **In-depth Qualitative Exploration:** Utilize interviews and focus groups to better understand emotional stories, cultural beliefs, and psychological considerations that inform gold preferences.

- **Gender-Specific Deep Dives:** Explore the specific information needs, decision-making styles, and unique constraints on women through an intersectional lens (gender × age × education).
- **Product Feature Optimization:** Conjoint analysis or discrete choice experiments could be utilized to test preference structures for altered SGB, such as interest rates, maturity periods, and liquidity options.
- **Distribution Channel Effectiveness:** Assess the adoption rates across the channels (bank branches, post offices, online platforms, fintech apps) to optimize your investments into the distribution channel.
- **Culture Economics Approach:** Create a cross-culture/rational decision-making model around specific cultural considerations of gold investing in India that could be comparable to other emerging markets.

7.CONCLUSION

This study empirically confirmed that psychographic factors (awareness, financial literacy, and perception) are the only predictors of SGB adoption among young educated urban Indians, explaining 55.8% of the variance in investment, while demographics exhibited no predictive power (all $p > 0.64$, $R^2 < 0.01$). Knowledge gaps represented the largest barrier (42.6% of non-investors) far surpassing cultural predispositions (19.1%) or tenure (18.1%). The validated predictive model (Nagelkerke $R^2 = 0.558$, AUC=0.847, 78% classification accuracy), along with the three-cluster segmentation (Unaware Non-Investors (38%, 13.2% investment rate); Aware Considerers (34%, 50% investment rate); and Informed Investors (28%, 78.6% investment rate)) presents implementable foundations for evidence-based strategic planning with the possibility of increasing investment rates from 30.8% to 60.8%.

Key Findings and Strategic Recommendations:

- **Psychographic Importance:** Awareness (OR=2.33), financial literacy (OR=1.86), and perception (OR=1.67) were significant predictors of SGB adoption, while demographics (age, gender, and occupation) reflected no predictive power, fundamentally altering traditional segmentation strategies, and supporting universal marketing hypotheses.
- **Promotional Budget Strategy:** Allocate promotional budgets around predictors—awareness (40-45%), perception (30-35%), and financial literacy (25-30%), and avoiding targeting demographics (0%).
- **High-ROI Cluster:** Identify and target Cluster 2 (Aware Considerers) as a priority through removing barriers and behavioural nudges as they represented the highest-ROI opportunities (40-50% conversion) and could add 6.8 percentage points on overall investment.
- **Policy Interventions:** To get around identified obstacles systematically use continuous online issuance platforms, improved secondary market liquidity through market-making and simplified application processes in association with existing financial platforms.
- **Theoretical Contribution:** Advances the behavioural finance literature by showing that psychographics are more important than demographics when it comes to adopting financial

products in an emerging market. The finding regarding gender parity ($OR=0.92$, $p=0.823$) suggests the ability to achieve equitable participation through psychographic marketing, rather than demographics.

• **Macroeconomic Importance:** Findings provide evidence-based pathways to mobilizing India's ₹1.5 trillion of household gold holdings into productive investments; this supports the planning objectives of reducing annual gold imports of \$35-45 billion, and managing current account deficits while also supporting financial inclusion through systematic educational strategies.

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