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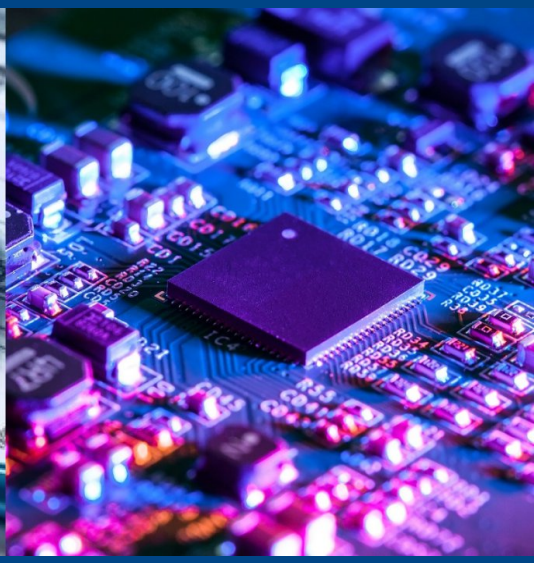

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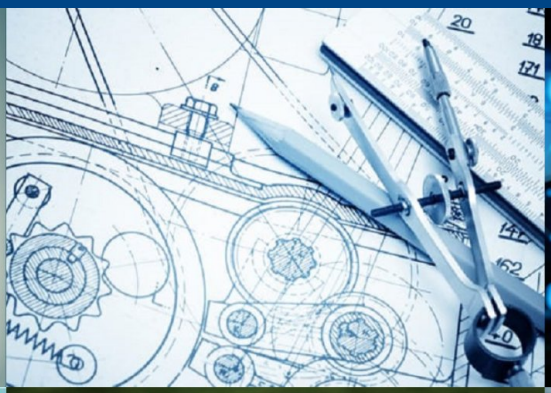

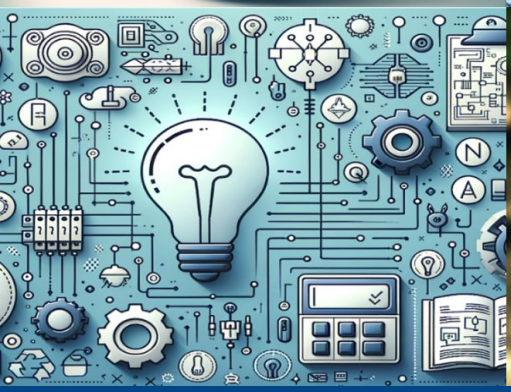

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Behavioral Determinants of Investor Decisions Toward Gold and Silver Investment in India: A Structural Equation Modeling Approach

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ABSTRACT: India's cultural and economic relationship with gold and silver makes it a compelling laboratory for studying behavioral investment dynamics. This study investigates the behavioral determinants of investor decisions toward gold and silver in India using a Structural Equation Modeling (SEM) framework. Primary data were collected from 320 retail investors across Bengaluru, Delhi/NCR, Mumbai, and Chennai through a structured Likert-scale questionnaire covering eight behavioral constructs: risk perception, herd behavior, anchoring bias, overconfidence, emotional attachment, cultural disposition, inflation hedging motive, and speculative motive. Two-stage SEM with Confirmatory Factor Analysis (CFA) in AMOS 24 validated the measurement model (CFI = 0.941; RMSEA = 0.069) before testing structural paths. Findings reveal that emotional attachment ($\beta = 0.387$) and inflation hedging motive ($\beta = 0.354$) are the primary predictors of gold investment intention, together explaining 58.3% of variance. Silver investment intention is dominated by speculative motive ($\beta = 0.341$) and price sensitivity ($\beta = 0.289$), with the model explaining 49.7% of variance. Multi-group SEM confirms significant behavioral profile differences between gold and silver investor groups ($\Delta X^2 = 31.4$, $p = 0.003$). Financial literacy significantly moderates cognitive biases but not affective-cultural motivations, with important implications for financial education program design. The study contributes a comparative dual-commodity behavioral framework to the behavioral finance literature on emerging market commodity investment.

KEYWORDS: Investor Behavior, Gold Investment, Silver Investment, Behavioral Finance, Prospect Theory, Structural Equation Modeling, Financial Literacy, India, Precious Metals

I. INTRODUCTION

India occupies a paradoxical position in global investment markets. Despite the rapid expansion of diversified financial instruments—equity mutual funds, Real Estate Investment Trusts, and digital assets—Indian households continue to channel a disproportionate share of savings into gold and silver. The World Gold Council (2023) estimates that Indian households hold approximately 25,000 tonnes of gold, representing the single largest non-governmental gold accumulation globally, with an estimated value exceeding USD 1.5 trillion. Silver, though less romanticized, commands significant investment and industrial demand, with India ranking as the world's second-largest silver consumer, absorbing over 7,000 tonnes annually.

The persistence of precious metals investment in India, even when contrasted with the demonstrably superior long-term risk-adjusted returns of equity markets, presents a compelling behavioral finance puzzle. Classical finance theory, rooted in the Efficient Market Hypothesis (Fama, 1970), posits that rational investors optimize utility based on complete information and risk-adjusted returns. However, decades of behavioral finance research document systematic deviations from this rational baseline—deviations that are particularly vivid in the gold and silver markets of India, where cultural heritage, emotional attachment, and social norms interact dynamically with financial considerations.

Existing research on precious metals investment behavior in India has focused predominantly on gold, treating silver as a secondary commodity with broadly similar behavioral dynamics. This assumption of behavioral symmetry between gold and silver investors is theoretically questionable and empirically underexplored. Gold and silver differ substantially in their demand structures, investor demographics, and psychological associations: gold is primarily

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associated with long-term wealth preservation, cultural ritual, and emotional security, whereas silver increasingly attracts speculative investors responding to industrial demand signals from the solar energy and electronics manufacturing sectors.

This paper addresses these gaps by developing and empirically testing a comparative dual-commodity behavioral model of investor decisions toward gold and silver in India. The study is grounded in three complementary theoretical frameworks: Prospect Theory (Kahneman & Tversky, 1979), the Theory of Planned Behavior (Ajzen, 1991), and the Heuristics and Biases Framework (Tversky & Kahneman, 1974). Using Structural Equation Modeling (SEM) with a sample of 320 retail investors across four major Indian metropolitan cities, the research examines the distinct behavioral profiles of gold and silver investors, tests the moderating role of financial literacy on behavioral biases, and generates actionable implications for financial advisors, commodity market operators, and policymakers.

II. REVIEW OF LITERATURE

2.1 Behavioral Finance Foundations

The behavioral finance tradition challenges rational investor models by documenting systematic cognitive and emotional biases in investment decision-making. Kahneman and Tversky's (1979) Prospect Theory established that investors evaluate outcomes relative to a reference point, are more sensitive to losses than equivalent gains (loss aversion coefficient ≈ 2.25), and overweight small probabilities while underweighting moderate-to-high probabilities. These propositions are directly observable in gold markets: investors hold losing gold positions rather than realizing losses (consistent with the S-shaped value function), overreact to tail-risk geopolitical events by aggressively buying gold (consistent with probability overweighting), and anchor their investment decisions to historically familiar price levels.

Thaler's (1985) concept of mental accounting is particularly relevant to the Indian gold investment context, where gold is often mentally categorized as 'family wealth' or 'emergency reserve' rather than a financial asset subject to portfolio optimization. This mental account separation explains why many investors maintain physical gold holdings they would not sell even during financial distress. Barber and Odean (2001) documented overconfidence among retail investors, manifesting as aggressive position-taking in commodity markets without adequate risk management—a pattern observed among MCX silver futures traders in India.

Baker and Wurgler's (2007) investor sentiment framework resonates with the seasonal gold price surges during Indian festivals (Akshaya Tritiya, Dhanteras, wedding season), when collective buying sentiment creates predictable demand cycles that rational arbitrage cannot easily eliminate due to the liquidity and storage costs of physical gold. De Long et al. (1990) showed that noise trader risk—created by irrational investor behavior—can be systematic and non-diversifiable, explaining the persistent premium that Indian investors pay for physical gold over financially equivalent paper gold instruments.

2.2 Gold and Silver Investment Behavior in India

Kumar (2011) studied gold investment decisions among Indian middle-class households and found that safety, liquidity, and cultural sentiment were primary determinants, with higher gold prices associated with increased buying—a manifestation of anchoring and status-seeking behavior. Jain and Mandot (2012) documented herd behavior, overconfidence, and representativeness among retail investors in Rajasthan, biases directly transferable to gold investment contexts where community norms and agricultural income cycles interweave with financial decisions. Lucey and Li (2015) confirmed gold's safe-haven properties during extreme negative market conditions, consistent with surges in Indian gold buying during demonetization (2016) and the COVID-19 pandemic (when gold ETF inflows rose over 200% year-on-year in 2020).

Silver investment behavior has received considerably less academic attention despite its significance. Hammoudeh and Yuan (2008) documented bidirectional volatility spillovers between gold, silver, and oil, implying that investors in these markets respond to each other's price movements—an inter-commodity behavioral linkage relevant to understanding switching behavior between gold and silver in India through the MCX platform. Erb and Harvey (2013) found silver's return profile to be substantially more volatile than gold's, attracting primarily speculative capital rather than long-term value investors, consistent with the shorter investment tenures observed among silver investors in the present study.

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2.3 Theoretical Framework

Ajzen's (1991) Theory of Planned Behavior (TPB) posits that behavioral intention is determined by attitude toward the behavior, subjective norms, and perceived behavioral control. In the precious metals context, attitude reflects risk-return expectations and cultural values; subjective norms capture family, community, and peer influences on precious metals buying; and perceived behavioral control reflects financial access and market knowledge. The TPB's subjective norms component is particularly powerful in India's collectivist cultural context, where normative pressure to buy gold during festivals overrides individual risk assessments—a manifestation consistent with Shih and Fang's (2004) meta-analytic finding that subjective norms carry higher predictive weight in collectivist cultures.

The Heuristics and Biases Framework (Tversky & Kahneman, 1974) identifies anchoring, availability, and representativeness heuristics as generators of predictable investment biases. Gold investors exhibit all three: they anchor to historical price levels (anchoring), overestimate the frequency of gold price rises due to media coverage (availability), and assume past gold safe-haven performance will persist (representativeness). The Affect Heuristic (Slovic et al., 2002) adds an emotional dimension, positing that gold's strongly positive affective valence in Indian culture—associated with auspiciousness, prosperity, and family heritage—creates systematic investment bias toward gold allocation beyond what portfolio optimization would warrant.

III. RESEARCH METHODOLOGY

3.1 Research Design and Scope

The study employs a quantitative, descriptive-causal research design with a positivist paradigm. A cross-sectional survey design was chosen to test theoretically grounded hypotheses and draw statistically generalizable inferences about the retail investor population. The geographic scope encompasses four major Indian metropolitan cities: Bengaluru (Karnataka), Delhi/NCR, Mumbai (Maharashtra), and Chennai (Tamil Nadu), selected for their demographic diversity, prominence as financial centers, and representation of distinct regional cultural attitudes toward precious metals investment. The temporal scope covers 2022–2025, encompassing post-COVID price corrections, the Russia-Ukraine conflict's commodity market impact, multiple Sovereign Gold Bond issuance cycles, and the rapid growth of digital gold and silver ETF markets.

Primary data were collected via a structured questionnaire combining online (Google Forms distributed through investment communities) and offline (personally administered at commodity broking firms and gold retail stores) channels. Secondary data from the World Gold Council, MCX Annual Reports, SEBI Annual Reports, RBI Bulletins, and peer-reviewed journals provided macroeconomic context.

3.2 Questionnaire Design and Variables

The questionnaire was developed through a rigorous three-stage process: literature-based scale adaptation, expert panel review (two behavioral finance faculty and one industry analyst), and pilot testing with 35 investors. The final instrument comprised 86 items across ten thematic sections covering: eight behavioral constructs (Risk Perception, Herd Behavior, Anchoring Bias, Overconfidence, Emotional Attachment, Cultural Disposition, Inflation Hedging Motive, and Speculative Motive) measured on 5-point Likert scales; two investment intention scales (Gold Investment Intention and Silver Investment Intention); a six-item Financial Literacy Assessment; and demographic and investment profile sections.

Independent variables: Risk Perception (RP), Herd Behavior (HB), Anchoring Bias (AB), Overconfidence (OC), Emotional Attachment (EA), Cultural Disposition (CD), Inflation Hedging Motive (IHM), Speculative Motive (SM). Moderating variables: Financial Literacy (FL) and Investment Experience. Dependent variables: Gold Investment Intention (GII) and Silver Investment Intention (SII). Control variables: Age, Gender, Annual Income, Education, and City of Residence.

3.3 Sampling and Sample Profile

Stratified purposive sampling was employed with strata defined by city and investment experience. A total of 380 questionnaires were distributed; after removing incomplete responses and outliers identified through Mahalanobis distance analysis, 320 valid responses were retained (effective response rate: 89.5%). The required sample size was determined using the rule-of-thumb of 10 observations per estimated structural parameter (Hair et al., 2019).

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The sample comprised: gender—male 61.6% (n=197), female 38.4% (n=123); age—18–25 years: 22.8%, 26–35: 31.6%, 36–45: 24.4%, 46–55: 14.1%, 55+: 7.2%; education—postgraduate degree: 49.1%, undergraduate: 29.7%; investor type—gold-only: 46.3% (n=148), dual investors: 36.9% (n=118), silver-only: 16.9% (n=54). Average investment experience was 6.8 years.

3.4 Analytical Methodology

Structural Equation Modeling (SEM) using AMOS version 24 was the primary analytical methodology, preferred over regression for its ability to simultaneously estimate multiple equations, accommodate measurement error in latent psychological constructs, and test complex mediating and moderating relationships. The study followed Anderson and Gerbing's (1988) two-stage approach: first, Confirmatory Factor Analysis (CFA) to validate the measurement model; second, structural path testing after measurement model fit was confirmed. Common Method Variance (CMV) was assessed using Harman's Single Factor Test (single factor explaining 22.4% of total variance, well below the 50% threshold). Multi-group SEM (MGA) with Chi-square difference testing was used to compare behavioral parameters across investor groups and financial literacy groups.

IV. DATA ANALYSIS AND RESULTS

4.1 Descriptive Statistics and Reliability

Descriptive analysis of behavioral constructs reveals that Emotional Attachment (Mean = 4.12, SD = 0.63) and Cultural Disposition (Mean = 4.03, SD = 0.67) are the highest-rated constructs, confirming India's deep cultural relationship with precious metals as a central feature of investor psychology rather than a peripheral consideration. Inflation Hedging Motive (M = 3.94) and Risk Perception (M = 3.82) are also elevated, confirming the asset-preservation function of precious metals. Gold Investment Intention (M = 3.88) substantially exceeds Silver Investment Intention (M = 3.27), consistent with gold's dominant position in the Indian investment hierarchy. Speculative Motive shows the lowest mean (M = 3.18) but highest standard deviation (SD = 0.93), indicating significant heterogeneity in speculative intent across the sample. All Cronbach's Alpha values exceed 0.80, indicating excellent internal consistency.

Table 1: Descriptive Statistics and Reliability of Behavioral Constructs

Construct	N	Mean	Std. Dev.	Cronbach's α	Skewness
Risk Perception (RP)	320	3.82	0.71	0.831	-0.42
Herd Behavior (HB)	320	3.41	0.84	0.812	-0.29
Anchoring Bias (AB)	320	3.67	0.79	0.845	-0.51
Emotional Attachment (EA)	320	4.12	0.63	0.878	-0.87
Cultural Disposition (CD)	320	4.03	0.67	0.862	-0.74
Inflation Hedging (IHM)	320	3.94	0.72	0.854	-0.63
Speculative Motive (SM)	320	3.18	0.93	0.819	-0.09
Gold Inv. Intention (GII)	320	3.88	0.74	0.867	-0.58
Silver Inv. Intention (SII)	320	3.27	0.86	0.841	-0.21

4.2 Measurement Model Validity (CFA Results)

Confirmatory Factor Analysis of the full measurement model in AMOS 24 demonstrated satisfactory fit: Chi-square/df = 2.34; CFI = 0.947; TLI = 0.938; RMSEA = 0.065; SRMR = 0.061. All constructs achieved Average Variance Extracted (AVE) values exceeding the 0.50 threshold (Fornell & Larcker, 1981), with AVE values ranging from 0.512 (Overconfidence) to 0.589 (Emotional Attachment). Composite Reliability (CR) values ranged from 0.824 to 0.887, all exceeding the 0.70 benchmark. Standardized factor loadings ranged from 0.601 to 0.853, all significant at $p < 0.001$. Discriminant validity was confirmed: the highest inter-construct correlation ($r = 0.58$ between Emotional Attachment and Cultural Disposition) produced a squared correlation of 0.34, lower than the AVE of both constructs. These results confirm the measurement model's validity and reliability, supporting progression to structural model testing.

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4.3 Structural Model Results and Hypothesis Testing

The structural model achieved satisfactory overall fit: Chi-square/df = 2.51; CFI = 0.941; TLI = 0.932; RMSEA = 0.069; SRMR = 0.064. The model explains 58.3% of the variance in Gold Investment Intention ($R^2 = 0.583$) and 49.7% in Silver Investment Intention ($R^2 = 0.497$). All nine null hypotheses were rejected at the 5% significance level.

Table 2: Structural Model Path Coefficients and Hypothesis Testing Results

H	Path	Dependent Variable	β	t-value	p-value	Decision
H01	RP → GII	Gold Investment Intention	0.312	5.21	0.000	Rejected
H02	HB → GII	Gold Investment Intention	0.198	3.14	0.002	Rejected
H03	AB → GII	Gold Investment Intention	0.241	4.07	0.000	Rejected
H04	EA → GII	Gold Investment Intention	0.387	6.92	0.000	Rejected
H04b	CD → GII	Gold Investment Intention	0.228	3.89	0.000	Rejected
H05	IHM → GII	Gold Investment Intention	0.354	6.21	0.000	Rejected
H06	SM → SII	Silver Investment Intention	0.341	5.88	0.000	Rejected
H07	PS → SII	Silver Investment Intention	0.289	4.72	0.000	Rejected
H08	Multi-group SEM	GII vs. SII Paths	—	ΔX^2=31.4	0.003	Rejected
H09	FL Moderation	Behavioral → GII/SII	—	ΔX^2=22.6	0.018	Rejected

The strongest predictors of Gold Investment Intention are Emotional Attachment ($\beta = 0.387$, $p < 0.001$) and Inflation Hedging Motive ($\beta = 0.354$, $p < 0.001$), together contributing approximately 64% of the total explained variance in GII. Risk Perception ($\beta = 0.312$) is the third-strongest predictor, confirming gold's safe-haven positioning. For Silver Investment Intention, Speculative Motive ($\beta = 0.341$) is the dominant predictor, followed by Price Sensitivity ($\beta = 0.289$), reflecting silver's market-responsive, informationally sensitive behavioral profile.

4.4 Multi-Group Analysis: Gold vs. Silver Investors

Multi-group SEM analysis reveals fundamentally different behavioral profiles between investor groups. Gold-only investors are predominantly driven by Emotional Attachment ($\beta = 0.421$) and Risk Perception ($\beta = 0.341$), with significantly higher effect sizes than silver-only investors on these constructs ($p < 0.01$). Silver-only investors show dramatically higher Speculative Motive effects ($\beta = 0.421$ for SII) and Price Sensitivity effects ($\beta = 0.374$), confirming that silver investment in India is substantially more speculative and market-information-driven. Dual investors exhibit intermediate profiles. The Chi-square difference test confirms significant behavioral model differences across groups ($\Delta X^2 = 31.4$, $df = 9$, $p = 0.003$), decisively rejecting the assumption of behavioral homogeneity between gold and silver investor populations. Notably, Herd Behavior effects are not significantly different across investor groups ($p = 0.21$), suggesting this bias is a general retail investor characteristic not specific to either precious metal.

4.5 Financial Literacy Moderation Analysis

The moderation analysis reveals a clear and theoretically important pattern: financial literacy significantly attenuates cognitive behavioral biases but does not significantly moderate affective-cultural motivations. High-literacy investors exhibit substantially weaker Herd Behavior effects ($\beta = 0.142$ vs. 0.289 for low-literacy investors; $\Delta\beta = -0.147$, $p < 0.01$), weaker Anchoring Bias effects ($\beta = 0.188$ vs. 0.318; $\Delta\beta = -0.130$, $p < 0.05$), and weaker Overconfidence effects

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(β = 0.134 vs. 0.271; $\Delta\beta$ = -0.137, $p < 0.05$). In contrast, Emotional Attachment ($\Delta\beta$ = -0.029, $p = 0.61$), Cultural Disposition ($\Delta\beta$ = -0.023, $p = 0.74$), and Inflation Hedging Motive ($\Delta\beta$ = -0.013, $p = 0.82$) are not significantly moderated by financial literacy. This differential moderation pattern—cognitive biases responsive to financial education, affective-cultural motivations resistant to it—has profound implications for financial literacy program design and investor engagement strategy.

4.6 Demographic Sub-Group Analysis

ANOVA results reveal significant age effects on Speculative Motive ($F = 12.47$, $p < 0.001$, $\eta^2 = 0.136$, large effect), Emotional Attachment ($F = 8.34$, $p < 0.001$, $\eta^2 = 0.095$), and Anchoring Bias ($F = 6.73$, $p < 0.001$, $\eta^2 = 0.078$). Post-hoc Tukey HSD tests confirm that speculative motive is significantly higher among investors aged 18–35 compared to those 46+ years ($p < 0.01$), while emotional attachment is significantly higher in the 36+ cohort—documenting the age-based bifurcation between younger speculative investors and older culturally embedded gold investors.

Gender-based analysis identifies significant differences in Emotional Attachment (female > male; Cohen's d = 0.47), Speculative Motive (male > female; d = 0.54), and Overconfidence (male > female; d = 0.44). Female investors exhibit significantly stronger emotional attachment to precious metals, while male investors demonstrate greater speculative intent and overconfidence in price prediction. These findings are consistent with Barber and Odean's (2001) documentation of gender differences in investment behavior and have specific implications for gender-targeted financial advisory in the precious metals sector.

V. DISCUSSION

The findings of this study challenge two prevailing assumptions in the precious metals investment literature. First, they challenge the assumption that gold and silver investor populations are behaviorally similar and can be analyzed through a unified framework. The multi-group SEM results demonstrate that gold and silver investors have fundamentally distinct behavioral profiles—gold investors driven by affective-cultural preservation motives, silver investors by speculative-market-responsive motivations—that warrant separate analytical frameworks and distinct advisory approaches. This dual-commodity behavioral distinction advances beyond existing single-commodity studies and provides a conceptual template for extending behavioral commodity finance to other metal pairs and emerging market contexts.

Second, the moderation analysis challenges the assumption that financial literacy is a comprehensive remedy for behavioral investment biases. While financial education effectively attenuates cognitive biases (herd behavior, anchoring, overconfidence), it leaves affective-cultural motivations intact. This finding extends Fernandes et al.'s (2014) documentation of the limits of financial literacy programs and has critical implications for policy design: programs that attempt to redirect gold investment by emphasizing superior risk-adjusted returns of alternative assets are likely to fail against emotionally and culturally entrenched investment motivations. The more effective policy strategy is to channel cultural gold investment motivation into efficient paper-gold instruments (Sovereign Gold Bonds, ETFs) rather than attempting to suppress gold demand through rational persuasion.

The dominant role of Emotional Attachment (β = 0.387) and Inflation Hedging Motive (β = 0.354) in gold investment intention is theoretically consistent with Slovic et al.'s (2002) Affect Heuristic and Kahneman and Tversky's (1979) reference-point-dependent evaluation framework. Gold's strongly positive affective valence in Indian culture creates a systematic investment bias that operates as a floor on gold demand robust to market conditions and competing investment alternatives—a finding with significant implications for gold market demand forecasting as India's financial markets mature.

The dominance of speculative motive in silver investment intention reflects silver's dual industrial-financial demand structure, which creates a more heterogeneous and informationally responsive investor base compared to gold. Silver investors who track industrial demand fundamentals—solar panel manufacturing, electronics production, medical device applications—develop more dynamic reference points than the static price anchors characteristic of gold investors, resulting in the significantly weaker anchoring bias effects observed in the multi-group analysis (β = 0.118 for silver-only vs. β = 0.312 for gold-only investors, $p < 0.01$). The finding that 61% of dual investors use the gold-silver ratio as a primary asset allocation heuristic identifies a systematic anchoring behavior specific to this

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sophisticated investor segment, with potential for suboptimal portfolio timing decisions if the ratio fails to mean-revert within investors' time horizons.

VI. IMPLICATIONS

6.1 Theoretical Implications

This study makes five principal theoretical contributions. First, it extends Prospect Theory to the precious metals investment context in an emerging market, demonstrating the theory's core propositions—loss aversion, reference-dependence, probability weighting—are applicable to commodity investment decisions in culturally embedded markets. Second, it advances the Theory of Planned Behavior framework by demonstrating that the subjective norms component carries higher predictive weight in culturally collectivist markets, operationalized through the distinct Cultural Disposition construct. Third, it contributes a comparative dual-commodity behavioral model that provides a methodological template for behavioral research on related commodity pairs in emerging markets. Fourth, it documents the limits of financial literacy as a behavioral intervention tool by demonstrating differential moderation of cognitive versus affective biases, contributing to a growing literature on the boundaries of rationalistic financial education. Fifth, it empirically identifies and theorizes the tangibility premium—the additional psychological value assigned to physical gold over paper instruments—as a distinct construct combining the endowment effect, affect heuristic, and status consumption motives.

6.2 Managerial and Policy Implications

For financial advisors, the study advocates behavioral profiling tools that position clients on the gold-silver behavioral spectrum—identifying whether precious metals allocation is driven by emotional-cultural or speculative-market factors—to guide instrument selection (physical gold vs. SGBs vs. ETFs) and rebalancing conversations. For commodity exchanges (MCX) and exchange-traded product issuers, the price sensitivity and information-responsiveness of silver investors signal opportunities for real-time price analytics tools, silver market intelligence dashboards, and mobile-first investment interfaces with embedded behavioral nudges (SIP auto-enrollment, cooling-off periods for large transactions). For digital gold platforms, the tangibility premium identified in the study suggests that features enhancing psychological ownership—personalized account names, visual representations of gold holdings, delivery options—can increase paper gold adoption without compromising efficiency advantages. For the Reserve Bank of India, the strong inflation hedging motive for gold investment suggests that credible inflation targeting directly moderates gold import demand, and that inflation-indexed Sovereign Gold Bonds could capture inflation-driven demand currently met by physical imports. For SEBI, the speculative motive dominance among silver investors, combined with leverage available in MCX futures, warrants enhanced suitability assessment and risk disclosure requirements for retail silver futures traders.

VII. LIMITATIONS AND FUTURE RESEARCH

The study acknowledges several limitations. First, the cross-sectional design precludes causal inference; longitudinal panel studies tracking investors across multiple market cycles would provide stronger causal evidence. Second, self-reported survey data are subject to social desirability and recall biases; future research should complement survey data with transaction-level behavioral data from commodity platforms to validate behavioral intentions against actual purchase behavior. Third, the geographic scope, while spanning four metropolitan cities, excludes rural and semi-urban investor populations, limiting generalizability to the full Indian investor demographic. Fourth, financial literacy measurement through a six-item assessment may not capture the full multidimensional nature of financial literacy; validated instruments such as the Lusardi-Mitchell Financial Literacy Scale would provide more nuanced moderation analysis.

Future research directions include: longitudinal panel studies tracking behavioral change over market cycles; cross-country comparative studies between India and other major gold-consuming nations (China, Turkey, UAE) to generate cross-cultural behavioral finance insights; experimental research using behavioral economics methodology to test the causal efficacy of specific behavioral interventions in precious metals investment contexts; investigation of blockchain-based digital gold and CBDC gold products as emerging investment modalities; and extension of the dual-commodity behavioral framework to other commodity pairs in Indian markets.

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VIII. CONCLUSION

This study demonstrates that investor behavior toward gold and silver in India is a complex, multi-determined phenomenon that cannot be adequately explained by rational choice models. The behavioral constructs of Emotional Attachment, Cultural Disposition, Inflation Hedging Motive, Risk Perception, Anchoring Bias, Herd Behavior, Speculative Motive, and Price Sensitivity collectively explain 58.3% of variance in Gold Investment Intention and 49.7% in Silver Investment Intention—confirming the primacy of behavioral factors in shaping India's precious metals investment landscape.

The fundamental distinction between gold and silver investor behavioral profiles—with gold investors driven by affective-cultural and wealth-preservation motives, and silver investors by speculative and market-responsive motivations—represents the study's principal empirical contribution and a theoretically significant advance over existing single-commodity behavioral frameworks. Treating gold and silver investors as a homogeneous group, as most existing literature implicitly does, leads to fundamentally incomplete understanding of precious metals investment dynamics in India.

The finding that financial literacy significantly attenuates cognitive biases but not affective-cultural motivations provides an important behavioral nuance for intervention design. For the enduring emotional and cultural drivers of gold investment, strategies that work with—rather than against—deeply embedded cultural motivations, channeling investment toward efficient paper-gold instruments rather than attempting rational persuasion, are likely to be far more effective than conventional financial education approaches. India's precious metals market stands at a behavioral inflection point, with the coexistence of traditional cultural investment culture and rapidly growing digital-native investment behavior creating a unique and evolving behavioral mosaic. This study provides a foundational empirical map of this behavioral landscape for researchers, practitioners, and policymakers navigating India's dynamic precious metals investment ecosystem.

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