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A Study on Behavioural Biases and Financial Literacy with Reference to Financial Behaviour in Navsari, Gujarat

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Abstract

Household financial decisions are shaped not only by how much financial knowledge a person holds but also by the psychological shortcuts and emotional tendencies that guide everyday choices. This study examines the relationship between financial literacy and behavioural biases among individuals in Navsari district, Gujarat, and evaluates how the two factors jointly influence financial behaviour relating to saving, spending, investing, and borrowing. Navsari presents a distinctive setting for such an inquiry: it is a semi-urban, agriculturally and industrially diverse district within South Gujarat, home to a mixed population of salaried employees, traders, farmers, and small business owners, with a recorded literacy rate above the state average yet limited documented evidence on financial literacy specifically. Using a descriptive and quantitative research design, primary data were collected through a structured questionnaire covering demographic characteristics, financial literacy indicators, and commonly observed behavioural biases. The collected responses were analysed using descriptive statistics and inferential tools to test associations between the level of financial literacy, the presence and intensity of behavioural biases, and observed financial behaviour, along with the moderating role financial literacy plays in the biases-behaviour relationship. The study is expected to reveal that while a section of respondents demonstrates reasonable financial knowledge, this knowledge does not consistently translate into rational financial behaviour, as emotional and cognitive biases continue to influence decisions across income and age groups. The findings aim to contribute regionally grounded evidence to the behavioural finance literature, which remains concentrated on metropolitan investor samples, and to offer practical direction for financial institutions, policymakers, and literacy programmes operating in semi-urban Gujarat. The paper concludes with implications for designing targeted financial education interventions that address behavioural tendencies rather than knowledge gaps alone.

Keywords: Financial Literacy, Behavioural Biases, Financial Behaviour, Investment Decisions, Navsari, Gujarat, Behavioural Finance.

Introduction

Classical finance theory rests on the premise that individuals process available information rationally and make decisions aimed at maximising utility. Over the past four decades, however, a growing body of behavioural finance research has shown that actual financial decision-making departs systematically from this rational ideal. People rely on mental shortcuts, are influenced by emotion, framing, and social context, and often act in ways that classical models cannot fully explain. These tendencies, broadly termed behavioural biases, include overconfidence, herd behaviour, loss aversion, anchoring, mental accounting, and present bias, among others, and have been documented across both developed and emerging financial markets.

Financial literacy, defined broadly as the combination of financial knowledge, attitude, and skill needed to make informed and effective financial decisions, is widely promoted as the primary remedy for poor financial outcomes. National and state-level financial inclusion programmes in India, including initiatives led by the Reserve Bank of India and the Securities and Exchange Board of India, have placed considerable emphasis on improving financial literacy among the general population. Yet an expanding stream of research suggests that financial knowledge alone does not guarantee rational financial behaviour; individuals with adequate financial knowledge can still fall prey to cognitive and emotional biases, while financial literacy itself may moderate or mediate the extent to which such biases affect actual decisions. This interplay between what people know and how they actually behave forms the central concern of the present study.

India's financial landscape has changed considerably in recent years, with rising participation in banking, insurance, mutual funds, and equity markets extending well beyond metropolitan centres into smaller towns and semi-urban districts. This expansion makes it increasingly important to understand financial behaviour outside the traditionally studied metro markets, where most existing behavioural finance research in India has been concentrated.

Profile of the Study Area: Navsari, Gujarat

Navsari district, located in the South Gujarat region along the Purna river, was carved out as an independent district in 1997 and comprises five talukas: Navsari, Gandevi, Chikhli, Jalalpore, and Vansda. According to Census figures, the district has a literacy rate above 83 percent, exceeding the national average, and a diversified economic base spanning agriculture (notably sugarcane, chikoo, and horticulture), agro and food processing, textiles, chemicals, and small and medium enterprises, alongside its proximity to the industrial belt around Surat. The population includes salaried professionals, traders, farmers, and self-employed individuals, offering a socio-economic mix that is neither purely rural nor fully metropolitan.

Despite a comparatively high general literacy rate, the extent to which residents of Navsari possess financial literacy, and the extent to which their financial decisions are shaped by behavioural biases rather than informed judgement, remains largely undocumented. Most existing Indian studies on financial literacy and behavioural biases focus on metropolitan investors trading in organised stock markets, leaving a gap in understanding financial behaviour among the broader population of semi-urban and district-level India, where formal investment participation coexists with traditional saving instruments, informal borrowing, and family-influenced financial decisions.

Statement of the Problem

General literacy does not automatically translate into financial competence, and financial competence does not automatically translate into rational financial behaviour. Residents of Navsari, despite a relatively literate population, may exhibit financial behaviour that is inconsistent with sound financial planning due to the influence of psychological biases such as overconfidence in one's own judgement, herd-following in investment choices, reluctance to realise losses, mental compartmentalising of money, or excessive weight placed on initial reference points. Without region-specific evidence, financial education efforts and product design by banks, mutual funds, and insurance providers risk being generic rather than responsive to the actual behavioural patterns of the local population. This study addresses that gap by empirically examining financial literacy levels, the prevalence of behavioural biases, and their combined influence on the financial behaviour of individuals in Navsari district.

Objectives of the Study

- To assess the level of financial literacy among individuals in Navsari district.
- To identify the prevalence and nature of behavioural biases among respondents.
- To examine the relationship between financial literacy and financial behaviour.
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Significance of the Study

The study contributes to behavioural finance literature by extending the scope of enquiry beyond metropolitan investor samples to a semi-urban Gujarat district, thereby offering a more geographically representative picture of financial behaviour in India. For policymakers and financial institutions, the findings can help calibrate financial literacy campaigns and product communication in a way that accounts for behavioural tendencies rather than assuming that information alone

changes behaviour. For academics, the study adds regionally grounded empirical evidence to an area where research remains comparatively limited, and provides a basis for future comparative and longitudinal work across districts and demographic groups.

Scope and Limitations

The study is confined to individuals residing in Navsari district and covers financial behaviour relating to saving, spending, borrowing, and investment decisions typically encountered by households. It relies on a structured questionnaire, and findings are therefore subject to the usual limitations of self-reported survey data, including recall and social-desirability effects. The cross-sectional nature of the study limits scope for causal claims regarding changes in behaviour over time, and results, being specific to Navsari, should be generalised to other regions with caution.

Review of Literature

- **Conceptualising Financial Literacy**

Financial literacy is commonly conceptualised as a composite of financial knowledge, financial attitude, and financial behaviour, rather than knowledge alone. Hastings, Madrian, and Skimmyhorn's widely cited review of financial literacy, financial education, and economic outcomes established that financially literate individuals tend to plan more effectively for retirement, accumulate wealth more consistently, and participate more actively in formal financial markets, framing financial literacy as an outcome-relevant capability rather than a purely academic measure. Subsequent Indian studies have used varied indicators, including numeracy, awareness of financial products, and understanding of concepts such as inflation, interest, and risk diversification, to build composite financial literacy indices for investor and household samples.

- **Behavioural Biases in Financial Decision-Making**

Behavioural finance research documents a recurring set of biases that shape financial decisions independent of a decision-maker's stated knowledge. Overconfidence leads individuals to overestimate the accuracy of their judgement and underestimate risk; loss aversion causes losses to be weighted more heavily than equivalent gains, encouraging investors to hold loss-making assets longer than is rational; anchoring reflects excessive reliance on initial reference points such as past prices; herding describes the tendency to follow the actions of the crowd, particularly during periods of market volatility; and mental accounting refers to treating money differently depending on its source or intended use rather than as a fungible resource. Kumar and Goyal's systematic review of behavioural biases in investment decision-making consolidated much of this literature, showing that such biases are pervasive across investor categories and are not confined to any single market or demographic segment.

Regionally, Lad and Tailor's study of cognitive biases among investors in Valsad district, a district adjoining Navsari in South Gujarat, found that local investors exhibited identifiable patterns of overconfidence and anchoring in their investment choices, indicating that such biases are observable even outside major metropolitan markets and lending support to the relevance of a similar enquiry in the neighbouring Navsari district.

- **Financial Literacy and Investment Behaviour**

A substantial body of research links financial literacy directly to financial behaviour and investment decisions. Suresh's study on financial literacy and behavioural biases in investment decision-making argued that financial literacy has historically helped investors move away from purely technical or intuition-driven decisions toward more fundamentals-based evaluation, framing financial education as a corrective mechanism against irrational decision-making. Similarly, survey-based research on urban Indian investors has reported that a meaningful share of respondents remain only partially financially literate, with financial literacy varying systematically by age, gender, and income, and correlating with more disciplined saving and investment patterns.

- **The Interaction Between Financial Literacy and Behavioural Biases**

More recent literature has moved beyond examining financial literacy and behavioural biases as independent predictors of financial behaviour, instead treating financial literacy as a moderating or mediating variable in the biases-behaviour relationship. Adil, Singh, and Ansari's study, grounded in prospect theory and regret theory, examined how financial literacy moderates the relationship between six behavioural biases, including herding, overconfidence, endowment, loss aversion, regret, and mental accounting, and investment decisions among investors in Delhi and Noida, finding that behavioural biases significantly shaped investment decisions and that financial literacy altered the strength of this relationship. Related work using data from Indian retail investors has similarly reported that behavioural biases mediate the relationship between financial literacy and investment decisions, suggesting a more complex pathway than a simple direct effect of literacy on rational behaviour. Ahmad and Shah's study on overconfidence-driven bias found that risk perception mediated the relationship between overconfidence and investment performance, while financial literacy moderated these effects, reinforcing the view that literacy does not eliminate bias but can influence how strongly bias translates into behaviour.

Not all findings are uniform, however. Some recent Indian studies applying moderation analysis have reported an insignificant direct effect of aggregate behavioural bias on investment decisions once financial literacy and investor experience are accounted for as moderators, while individual biases such as

heuristic-driven judgement retained significant explanatory power. This divergence in findings across studies underscores that the biases-literacy-behaviour relationship is context-dependent and sensitive to the specific biases, sample, and financial products considered, further justifying region-specific investigation such as the present study.

- **Demographic and Contextual Influences**

Several studies point to demographic variation in both financial literacy and susceptibility to behavioural biases. Gender-based comparisons among investors in the Delhi NCR region found that risk aversion and herding had a statistically significant negative association with investment decisions, with differences observed between male and female respondents. Personality traits have also been examined as antecedents of behavioural bias, with risk tolerance found to moderate the relationship between personality characteristics and biased decision-making. Zahera and Bansal's systematic review of behavioural biases in investment decision-making similarly concluded that bias exposure is shaped by a combination of demographic, cognitive, and contextual factors rather than financial knowledge in isolation, reinforcing the need to examine financial literacy and behavioural biases jointly rather than as separate strands of enquiry.

- **Research Gap**

The reviewed literature demonstrates consistent interest in financial literacy and behavioural biases as determinants of financial and investment behaviour, but with two notable gaps relevant to this study. First, the overwhelming majority of Indian studies draw samples from metropolitan or NCR-based stock market investors, leaving semi-urban and district-level populations, where formal investment coexists with traditional and informal financial practices, comparatively under-researched. Second, while a small number of studies from South Gujarat, such as the Valsad district study on cognitive biases, provide regional evidence, no identified study has jointly examined financial literacy, behavioural biases, and everyday financial behaviour, covering saving, spending, borrowing, and investing, specifically within Navsari district. This study is positioned to address that gap by generating primary, region-specific evidence on how financial literacy and behavioural biases jointly shape financial behaviour in Navsari, Gujarat.

Data Analysis and Interpretation

This chapter presents the results of the study conducted among 80 respondents in Navsari district, intended to test the reliability and validity of the survey instrument before full-scale data collection. The instrument comprised fifteen five-item scales grouped into three domains: behavioural biases (Anchoring, Overconfidence, Loss Aversion, Herding, and Familiarity Bias), financial literacy (Basic Financial Concepts, Budgeting & Saving, Banking & Digital Finance,

Investment & Insurance, and Awareness of Government Schemes), and financial behaviour outcomes (Budgeting, Saving, Spending, Borrowing, and Investment Behaviour). All items were measured on a five-point Likert scale. Data were analysed using descriptive statistics, Cronbach's alpha, Pearson correlation, sampling-adequacy tests (KMO and Bartlett's test), principal axis factoring as a single-factor congeneric check for each scale, and convergent validity indices .

- **Demographic Profile of Respondents**

Table 3.1 summarises the demographic composition of the 80 respondents.

Table 1: Demographic Profile of Respondents

Gender	n	%
Male	44	55.0%
Female	36	45.0%

Age Group	n	%
25-34	32	40.0%
18-24	22	27.5%
35-44	10	12.5%
45-54	8	10.0%
55 & Above	8	10.0%

Educational Qualification	n	%
Graduate	32	40.0%
Post-Graduate, Professional Degree or Equivalent	28	35.0%
Diploma	10	12.5%
HSC	8	10.0%
SSC & Below	2	2.5%

Occupation	n	%
Employed (Private/Government)	25	31.2%
Student	24	30.0%
Business/Self-Employed	18	22.5%
Home-maker	6	7.5%
Unemployed	4	5.0%
Retired	3	3.8%

Monthly Income	n	%
₹25,001 to ₹50,000	29	36.2%
₹25,000 & Below	25	31.2%
₹75,000 & Above	15	18.8%
₹50,001 to ₹75,000	11	13.8%

Note: Percentages are rounded to one decimal place and are computed on a base of n = 80.

The sample includes a fairly balanced mix of male and female respondents, is skewed toward younger, economically active age groups, and reflects a mix of

salaried, self-employed, and student respondents across income bands, broadly consistent with the socio-economic profile of Navsari district.

- **Descriptive Statistics**

Construct-level mean scores were computed by averaging each respondent's ratings across the five items of each scale. Table 3.2 presents the mean, standard deviation, skewness, and kurtosis for all fifteen constructs.

Table 2: Descriptive Statistics of Study Constructs

Code	Construct	Domain	Mean	SD	Skewness	Kurtosis
ANC	Anchoring Bias	Behavioural Biases	3.27	0.90	-0.34	-0.58
OVC	Overconfidence Bias	Behavioural Biases	3.08	0.96	-0.01	-0.92
LOS	Loss Aversion Bias	Behavioural Biases	3.20	0.96	-0.08	-0.55
HRD	Herding Bias	Behavioural Biases	2.85	0.86	0.26	-0.36
FAM	Familiarity Bias	Behavioural Biases	2.97	0.94	0.25	-0.66
BFC	Basic Financial Concepts	Financial Literacy	3.32	0.87	-0.31	-0.25
BGS	Budgeting & Saving	Financial Literacy	3.50	0.77	-0.28	-0.58
BDF	Banking & Digital Finance	Financial Literacy	3.60	0.74	-0.53	1.01
INV	Investment & Insurance	Financial Literacy	3.22	0.88	-0.19	-0.35
GOV	Awareness of Govt. Schemes	Financial Literacy	2.89	0.92	-0.19	-0.65
BUD	Budgeting Behaviour	Financial Behaviour	3.67	0.95	-0.50	-0.25
SAV	Saving Behaviour	Financial Behaviour	3.43	1.00	-0.30	-0.79
SPN	Spending Behaviour	Financial Behaviour	3.46	1.01	-0.34	-0.77
BOR	Borrowing Behaviour	Financial Behaviour	3.35	0.87	-0.16	-0.64
IVB	Investment Behaviour	Financial Behaviour	3.31	0.86	-0.29	-0.28

Note: Skewness and kurtosis values within ± 1.96 (and generally within ± 2) suggest the item distributions do not deviate substantially from normality, appropriate for the parametric tests applied below.

All construct means fall within the moderate range on the five-point scale (approximately 2.85 to 3.67), and skewness and kurtosis values for all constructs lie

within acceptable limits for approximate normality, supporting the use of Pearson correlation and factor-analytic procedures on this data.

- **Reliability Analysis (Cronbach's Alpha)**

Internal consistency reliability was assessed using Cronbach's alpha for each of the fifteen five-item scales. The overall instrument (all 75 items) returned an alpha of 0.636; because the instrument spans three conceptually distinct domains, domain-level alphas are more meaningful: Behavioural Biases ($\alpha = 0.665$), Financial Literacy ($\alpha = 0.719$), and Financial Behaviour ($\alpha = 0.759$). Table 3.3 reports alpha for each individual construct.

Table 3: Cronbach's Alpha for Study Constructs

Code	Construct	No. of Items	Cronbach's α	Interpretation
ANC	Anchoring Bias	5	0.872	Good
OVC	Overconfidence Bias	5	0.886	Good
LOS	Loss Aversion Bias	5	0.886	Good
HRD	Herding Bias	5	0.858	Good
FAM	Familiarity Bias	5	0.879	Good
BFC	Financial Knowledge (Basic Financial Concepts)	5	0.864	Good
BGS	Budgeting & Saving	5	0.823	Good
BDF	Banking & Digital Finance	5	0.828	Good
INV	Investment & Insurance	5	0.843	Good
GOV	Awareness of Govt./Financial Schemes	5	0.884	Good
BUD	Budgeting Behaviour	5	0.910	Excellent
SAV	Saving Behaviour	5	0.912	Excellent
SPN	Spending Behaviour	5	0.906	Excellent
BOR	Borrowing Behaviour	5	0.872	Good
IVB	Investment Behaviour	5	0.858	Good

Interpretation benchmark: $\alpha \geq 0.90$ Excellent, 0.80–0.89 Good, 0.70–0.79 Acceptable, < 0.70 Questionable (Cronbach, 1951; George & Mallery, 2003).

All fifteen constructs individually exceed the commonly used 0.70 threshold for internal consistency, with most falling in the Good to Excellent range. Item-total correlations (not reported item-by-item here for brevity) exceeded 0.40 for all items across all scales, so no item required removal at the stage. This indicates that the scales are reliable and suitable for use in the main survey without modification.

- **Correlation Analysis**

Pearson correlation was computed among the fifteen construct-level mean scores to examine the pattern of association between behavioural biases, financial literacy dimensions, and financial behaviour outcomes prior to more formal

hypothesis testing in the main study. The full 15×15 correlation matrix is presented in Table 4 (Appendix, landscape orientation, Section 3.4.1).

At the stage ($n = 80$), the following construct pairs showed a statistically significant correlation at the 0.05 level: OVC–GOV ($r = -0.24$, $p = 0.035$); OVC–BOR ($r = -0.32$, $p = 0.003$); HRD–BUD ($r = 0.25$, $p = 0.023$); GOV–BOR ($r = 0.28$, $p = 0.012$). All other inter-construct correlations were not statistically significant at this small sample size, which is expected and does not indicate a problem with the instrument; correlation and structural relationships are more meaningfully tested once the full sample is collected.

- **Sampling Adequacy: KMO and Bartlett's Test**

Before extracting factors for each scale, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were computed for each five-item construct to confirm that the item correlations were suitable for factor analysis. Results are presented in Table 5.

Table 5: KMO and Bartlett's Test of Sphericity by Construct

Code	KMO	Interpretation	Bartlett χ^2	df	Sig.
ANC	0.842	Meritorious	183.0	10	<0.001
OVC	0.865	Meritorious	202.0	10	<0.001
LOS	0.878	Meritorious	197.1	10	<0.001
HRD	0.838	Meritorious	175.3	10	<0.001
FAM	0.876	Meritorious	188.9	10	<0.001
BFC	0.843	Meritorious	172.3	10	<0.001
BGS	0.809	Meritorious	135.1	10	<0.001
BDF	0.846	Meritorious	128.3	10	<0.001
INV	0.847	Meritorious	141.4	10	<0.001
GOV	0.883	Meritorious	193.1	10	<0.001
BUD	0.894	Meritorious	241.8	10	<0.001
SAV	0.876	Meritorious	256.2	10	<0.001
SPN	0.877	Meritorious	242.3	10	<0.001
BOR	0.859	Meritorious	181.3	10	<0.001
IVB	0.845	Meritorious	165.3	10	<0.001

KMO benchmark: ≥ 0.90 Marvelous, $0.80-0.89$ Meritorious, $0.70-0.79$ Middling, $0.60-0.69$ Mediocre, < 0.60 Unacceptable (Kaiser, 1974).

KMO values for all fifteen constructs exceed 0.80, falling in the Meritorious-to-Marvelous range, and Bartlett's test of sphericity is significant ($p < 0.001$) for every construct, confirming that the correlation matrices are factorable and that item correlations within each scale are sufficiently strong to proceed with factor extraction.

- **Confirmatory Factor Analysis (Factor Loadings)**

Because each of the fifteen scales was designed a priori as a single, unidimensional construct, a single-factor congeneric model was fitted to each scale

using principal axis factoring, which extracts the underlying factor and standardized item loadings implied by the observed item correlations. This provides a confirmatory check that all five items of each scale load onto one common factor, consistent with the hypothesised measurement model. A fully specified maximum-likelihood CFA with model-fit indices (χ^2 , CFI, TLI, RMSEA, SRMR) is recommended once the main-study sample is collected, using structural equation modelling software such as AMOS, SmartPLS; this stage loadings reported here are the appropriate diagnostic at this sample size ($n = 80$).

Table 6: Factor Loadings, Eigenvalues, and Variance Explained

Code	Eigenvalue (Factor 1)	Variance Explained	Loading Range
ANC	3.31	58.0%	0.72 – 0.82
OVC	3.43	61.0%	0.73 – 0.85
LOS	3.44	61.1%	0.76 – 0.81
HRD	3.21	56.0%	0.56 – 0.84
FAM	3.38	59.6%	0.67 – 0.83
BFC	3.25	56.5%	0.68 – 0.79
BGS	2.94	49.2%	0.51 – 0.81
BDF	2.98	49.5%	0.66 – 0.73
INV	3.07	51.9%	0.70 – 0.74
GOV	3.42	60.6%	0.73 – 0.81
BUD	3.68	67.0%	0.79 – 0.84
SAV	3.71	67.8%	0.77 – 0.88
SPN	3.64	66.1%	0.73 – 0.87
BOR	3.32	58.2%	0.72 – 0.80
IVB	3.20	55.2%	0.66 – 0.79

Standardized loadings above 0.50 are generally considered acceptable, and above 0.70 desirable (Hair et al., 2019).

Every construct returned a single dominant factor (eigenvalue > 1, in all cases well above the second eigenvalue) explaining between approximately 49% and 68% of item variance, with all standardized loadings exceeding 0.50 and the great majority exceeding 0.65. This confirms that the five items in each scale converge on a single underlying construct, supporting the uni-dimensionality assumed in the questionnaire design.

- **Convergent Validity**

Convergent validity was assessed using Average Variance Extracted (AVE) and Composite Reliability (CR), calculated from the standardized factor loadings obtained in Section 3.6. Table 3.7 presents these values alongside Cronbach's alpha for comparison.

Table 7: Convergent Validity — Cronbach's Alpha, Composite Reliability, and AVE

Code	Construct	α	CR	AVE	AVE $\geq$ 0.50
ANC	Anchoring Bias	0.872	0.873	0.580	Yes
OVC	Overconfidence Bias	0.886	0.886	0.610	Yes
LOS	Loss Aversion Bias	0.886	0.887	0.611	Yes
HRD	Herding Bias	0.858	0.862	0.560	Yes
FAM	Familiarity Bias	0.879	0.880	0.596	Yes
BFC	Financial Knowledge (Basic Financial Concepts)	0.864	0.866	0.565	Yes
BGS	Budgeting & Saving	0.823	0.826	0.492	Borderline
BDF	Banking & Digital Finance	0.828	0.830	0.495	Borderline
INV	Investment & Insurance	0.843	0.843	0.519	Yes
GOV	Awareness of Govt./Financial Schemes	0.884	0.885	0.606	Yes
BUD	Budgeting Behaviour	0.910	0.910	0.670	Yes
SAV	Saving Behaviour	0.912	0.913	0.678	Yes
SPN	Spending Behaviour	0.906	0.907	0.661	Yes
BOR	Borrowing Behaviour	0.872	0.874	0.582	Yes
IVB	Investment Behaviour	0.858	0.860	0.552	Yes

Convergent validity benchmarks: CR $\geq$ 0.70 and AVE $\geq$ 0.50 (Fornell & Larcker, 1981; Hair et al., 2019).

Composite reliability exceeds 0.70 for all fifteen constructs, and AVE exceeds the 0.50 benchmark for thirteen of the fifteen constructs. Budgeting & Saving (AVE = 0.492) and Banking & Digital Finance (AVE = 0.495) fall marginally below 0.50. Because CR remains well above 0.70 for both scales and all individual loadings exceed 0.50, this is treated as borderline rather than a substantive validity concern at the stage; item wording for these two scales may be reviewed before the main survey to strengthen convergent validity further.

- **Discriminant Validity (Fornell–Larcker Criterion)**

Discriminant validity was tested using the Fornell–Larcker criterion, which compares the square root of each construct's AVE (placed on the diagonal) with its correlations with all other constructs (placed off-diagonal). Discriminant validity is supported when the diagonal value exceeds every off-diagonal value in its row and column. The full 15 $\times$ 15 Fornell–Larcker matrix is presented in Table 3.8 (Appendix, landscape orientation, Section 3.4.1).

Across all fifteen constructs, the square root of AVE on the diagonal exceeds every inter-construct correlation in the corresponding row and column, satisfying the Fornell–Larcker criterion and supporting discriminant validity between behavioural bias, financial literacy, and financial behaviour constructs. This indicates each scale

captures a distinct construct rather than overlapping conceptually with the others, consistent with the theoretical model underlying the questionnaire.

- **Summary**

Taken together, the results support the psychometric quality of the survey instrument. All fifteen scales demonstrate acceptable-to-excellent internal consistency, sampling adequacy is meritorious across all constructs, single-factor solutions confirm the intended unidimensional structure of each scale, and convergent and discriminant validity are broadly supported, with two constructs flagged for minor item review. On this basis, the questionnaire is judged suitable for administration in the main study in Navsari district, subject to the minor refinements noted for the Budgeting & Saving and Banking & Digital Finance scale.

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