



BEYOND KNOWLEDGE: PERCEIVED FINANCIAL LITERACY AND PRUDENT MONEY MANAGEMENT AMONG COMMERCE AND MANAGEMENT STUDENTS

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Original Article

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Abstract

This study examines an integrated financial capability model among 464 undergraduate and postgraduate commerce and management students from 12 institutions in Bengaluru, Mangaluru, Dharwad, Hubballi and Udupi, Karnataka. Perceived financial literacy, family financial socialisation and financial self-efficacy were modelled as antecedents of financial attitude, while financial attitude, self-control and financial self-efficacy were modelled as antecedents of financial management behaviour. Descriptive analysis, Welch's independent-samples t-test, one-way analysis of variance (ANOVA) and partial least squares structural equation modelling (PLS-SEM) were used. All six reflective constructs satisfied the reported reliability, convergent-validity and discriminant-validity criteria. Perceived financial literacy ($\beta = 0.315$), family financial socialisation ($\beta = 0.277$) and financial self-efficacy ($\beta = 0.321$) were positively associated with financial attitude. Financial attitude ($\beta = 0.379$), self-control ($\beta = 0.301$) and financial self-efficacy ($\beta = 0.254$) were positively associated with financial management behaviour. Financial attitude showed complementary partial mediation in the association between financial self-efficacy and financial management behaviour. The model explained 32.0% of financial attitude and 38.2% of financial management behaviour. Gender differences were not significant, while programme differences were significant only for financial self-efficacy. Because the design is cross-sectional, self-reported and purposive, the findings are interpreted as associations rather than causal or population-representative effects.

Keywords: *Family Financial Socialisation; Financial Attitude; Financial Management Behaviour; Financial Self-Efficacy; Perceived Financial Literacy; Self-Control*

Introduction

Commerce and management students encounter financial concepts in their courses, but academic exposure does not necessarily translate into disciplined personal money management. Students still must manage allowances or earnings, control discretionary spending, meet payment commitments and begin saving. The study therefore focuses on how perceived financial understanding, family learning, self-efficacy, financial attitude and self-control relate to financial management behaviour.

Financial education can help, but its effect on behaviour is not automatic. Experimental evidence reports gains in financial knowledge and behaviour [1], while school-based evidence shows larger gains in knowledge than in behaviour [2]. A university study also found that a personal finance course improved knowledge without independently changing attitude or behaviour [3].

Objective financial knowledge uses questions with correct answers [4], whereas perceived or subjective knowledge captures what people believe they know. Perry and Morris [5] operationalised financial knowledge as a five-item self-assessment of knowledge about borrowing, credit, managing finances and investing, while Flynn and Goldsmith [6] developed and validated a general five-item subjective-knowledge scale and showed that subjective and objective knowledge are related but distinct. These distinctions support the use of perceived financial literacy as a separate construct from financial self-efficacy, which concerns confidence in carrying out financial tasks [7, 8].

Financial capability emphasises action rather than knowledge alone. Student research calls for greater attention to desirable financial behaviour [9], while reviews identify knowledge, attitudes, psychological resources and social influences as recurring antecedents of personal financial management [10, 11]. The present study examines how these resources operate together within one parsimonious model.

The study therefore examines six constructs in an integrated model and asks: (RQ1) what levels of these constructs do students report; (RQ2) do scores differ by gender or academic programme; and (RQ3) how are perceived literacy, family socialisation, self-efficacy, attitude and self-control associated with financial management behaviour among commerce and management students in Karnataka?

Literature Review

Integrated theoretical position

The framework is not a complete test of the Theory of Planned Behaviour because it does not include subjective norm, perceived behavioural control or intention. It uses the theory only to support the role of financial attitude in action, consistent with recent student-budgeting research [12], and combines this with family socialisation, self-efficacy and self-control.

Family financial socialisation develops through discussion, observation and participation. Prior studies link it with students' knowledge, attitudes and behaviour [3], financial behaviour among employees [13], parental modelling and experiential learning [14], responsibility [15], financial capability [16] and financial learning and behavioural control [17]. Indian evidence also links family socialisation with financial attitude and self-efficacy [18], while recent adolescent and investor studies show similar relevance in other settings [19, 20].

Family influence may operate through discussion, modelling and participation, which can make prudent financial practices familiar. The model therefore treats family financial socialisation as a broad learning environment while recognising that different family experiences may have different effects.

Perceived financial literacy and financial attitude

Perceived financial literacy is a student's self-assessment of understanding financial concepts and choices. Perry and Morris [5] provide a direct financial-context precedent by measuring self-assessed financial knowledge with multiple items, while Flynn and Goldsmith [6] provide the broader validated subjective-knowledge measurement foundation. This construct therefore differs from objective knowledge [4] and from confidence in performing financial tasks [7, 8]. Perceived knowledge and attitude are distinct, and both can relate to financial behaviour [21, 22]. Because direct evidence for perceived literacy leading to financial attitude is limited, *H1* tests this relationship as a theory-led extension.

H1: Perceived financial literacy is positively associated with financial attitude.

Family financial socialisation and financial attitude

Family financial socialisation includes discussion, observation and participation in financial decisions. Shim et al. [23] developed a student-focused parent financial socialisation measure covering family financial discussion and parental teaching, and Kaur and Singh [18] later used this lineage with university students. LeBaron-Black et al. [24] further developed and validated distinct parent financial modelling, parent-child financial discussion and experiential-learning scales. Together, these studies provide a strong measurement basis for the three family socialisation items used in the present specification.

Prior evidence indicates that modelling and experience can complement discussion [14], observed parental behaviour can build financial capability [16] and responsibility can help young adults translate family influence into their own financial practice [15].

H2: Family financial socialisation is positively associated with financial attitude.

Financial self-efficacy and financial attitude

Financial self-efficacy is confidence in completing financial tasks, meeting goals and recovering from setbacks. Lown [25] developed and validated a domain-specific Financial Self-Efficacy Scale, and Kaur and Singh [18] used that scale with students. Montford and Goldsmith [8] also developed a five-item financial self-efficacy measure for financial decision making, while dare et al. [7] reproduced and validated those items in later financial-behaviour research. These sources support the adapted three-item financial self-efficacy specification used here.

Perceived literacy and self-efficacy are different: a student may understand a concept but still lack confidence in applying it. Evidence supports the behavioural relevance of self-efficacy [7, 26, 27], but its direct relationship with financial attitude is less established. *H3* therefore tests this association.

H3: Financial self-efficacy is positively associated with financial attitude.

Financial attitude, self-control and financial management behaviour

Financial attitude reflects the value placed on planning, saving, controlled spending and prudent financial management. Potrich et al. [28] used and refined a financial-attitude scale for university students and explicitly traced the original attitude measure to Shockey [29]. In India, Bhatia and Singh [30] adapted the Potrich et al. measure and retained five strongly loading items covering expense control, future financial targets, monthly saving, the future consequences of current money management and regular long-term investment. These domains closely match the attitudinal meaning used in the present model. Financial attitude has also been positively linked with financial behaviour [21, 22].

Self-control regulates immediate impulses when they conflict with later goals. The Brief Self-Control Scale originates with Tangney et al. [31]. Bai [32] provides a financial-context precedent linking self-control with financial well-being through financial decision making. Because the present construct focuses specifically on restraint over discretionary purchases, the three statements are reported as contextual adaptations of the general self-control scale rather than verbatim reproductions.

H4: Financial attitude is positively associated with financial management behaviour.

H5: Self-control is positively associated with financial management behaviour.

Financial self-efficacy and financial management behaviour

Financial self-efficacy may also relate directly to behaviour. Positive financial behaviours such as timely payment, tracking expenses, budgeting and saving have been shown to mediate the relationship between self-efficacy and well-being [7]. Self-efficacy is also linked with student credit behaviour [26], suggesting that confidence may help students adjust when a financial plan is disrupted.

Financial management behaviour is meaningful because it covers routine actions such as budgeting, saving, spending control and timely obligations. Dew and Xiao [33] developed and validated the Financial Management Behaviour Scale, and later work has drawn on that scale when assessing positive financial behaviours [7, 32]. Financial management behaviour is also linked with financial well-being [34], can connect knowledge and personal control with well-being [35] and is central to student financial capability [9].

H6: Financial self-efficacy is positively associated with financial management behaviour.

Mediating role of financial attitude

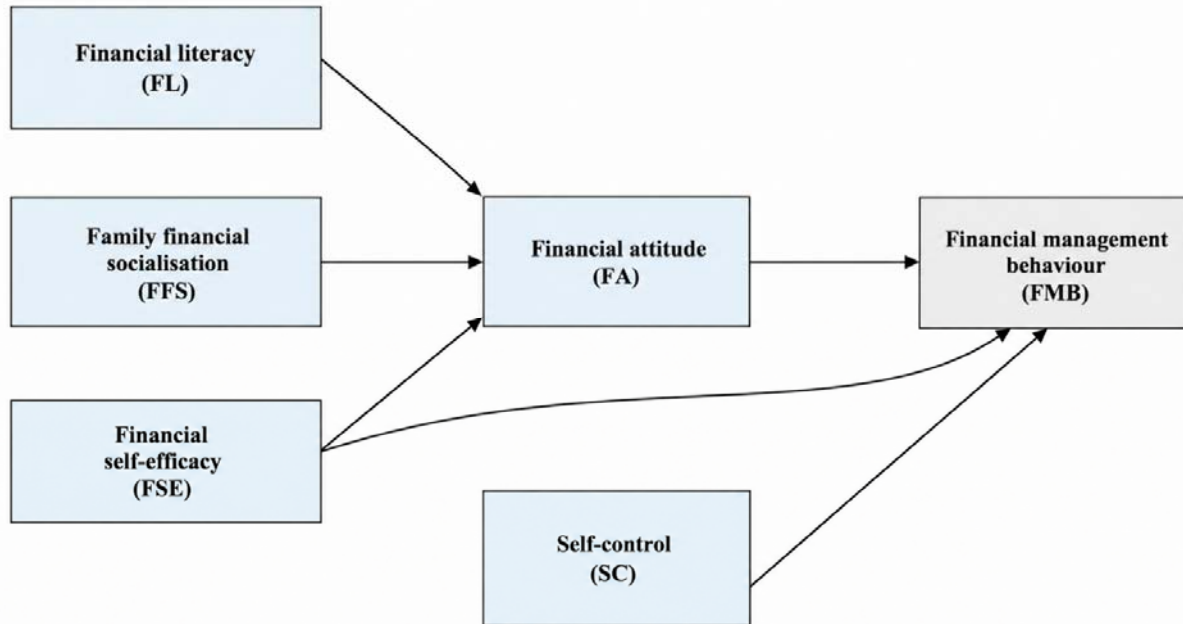
Financial attitude is examined as a mediator only in the financial self-efficacy–financial management behaviour relationship. Prior evidence links financial self-efficacy with positive financial behaviour [7, 26, 27], and the model estimates both the direct financial self-efficacy → financial management behaviour path and the indirect route through financial attitude. This specification permits a comprehensive mediation test for *H7*.

H7: Financial attitude mediates the association between financial self-efficacy and financial management behaviour.

Figure 1 presents the conceptual framework. Perceived financial literacy, family financial socialisation and financial self-efficacy are linked with financial attitude; financial attitude, self-control and financial self-efficacy are linked with

financial management behaviour. Financial attitude is tested as the mediator between financial self-efficacy and financial management behaviour.

Figure 1. Conceptual Framework of Student Financial Capability



Source: Authors' conceptualisation based on the cited literature

Methodology

Research design and respondents

A quantitative, cross-sectional explanatory design was used with undergraduate and postgraduate BCom, BBA, MCom and MBA students from 12 institutions in Bengaluru, Mangaluru, Dharwad, Hubballi and Udupi, Karnataka. Eligible students personally managed at least some regular spending. Data were collected through classroom and institutional channels; participation was voluntary, responses were anonymous and findings were reported in aggregate.

Purposive sampling was used to recruit students who personally managed regular spending across the participating institutions. Of 612 questionnaires distributed, 512 were returned. Forty-eight incomplete questionnaires were excluded, leaving 464 usable responses. The gross response rate was 83.7%, and the usable response rate was 75.8%. For the largest structural equation with three predictors, $n = 464$ can detect an incremental effect of about $f^2 = 0.037$ at $\alpha = 0.05$ with 95% power, consistent with sample-size guidance based on power and model complexity [36].

Measurement

The questionnaire contained 18 reflective indicators, three for each of the six constructs. Table 1 reports the exact item wording, item codes, source scales and adaptation status. Perceived financial literacy captured self-assessed financial knowledge; family financial socialisation captured family discussion and guidance; financial self-efficacy captured confidence in managing financial tasks; financial attitude captured the value placed on prudent practices; self-control captured restraint over discretionary spending; and financial management behaviour captured routine budgeting, expense tracking and timely obligations.

The items were adapted from established measurement scales and contextualised for commerce and management students. The complete source mapping is provided in Table 1, while the construct-specific literature and measurement foundations are discussed in Sections 2.2-2.6 [9, 21, 27, 34]. The three-item specifications were used as parsimonious, context-specific measures rather than as claims to reproduce the full breadth of the original instruments. For financial management behaviour, the three indicators represent timely payment of obligations, expense recording and adherence to a budget or spending plan; for self-control, they represent resistance to unnecessary purchases, control of spending

temptation and avoidance of impulsive purchases that could interfere with financial goals. Accordingly, construct interpretation is restricted to the domains represented by the administered items. This compact specification reduces respondent burden but can narrow content coverage; therefore, reliability and convergent-validity statistics are interpreted together with item content rather than as evidence that the complete source constructs have been exhaustively measured. Table 1 reports all 18 indicators used in the questionnaire and structural analysis.

Table 1. Adapted Measurement Items and Source Mapping

Construct	Item code	Adapted measurement item	Original/source scale	Status
Perceived financial literacy	PFL1	I understand interest rates, finance charges and borrowing terms.	Perry and Morris [5]; Flynn and Goldsmith [6]	Adapted
Perceived financial literacy	PFL2	I understand how to manage my personal finances.	Perry and Morris [5]; Flynn and Goldsmith [6]	Adapted
Perceived financial literacy	PFL3	I understand common investment choices and their basic risks.	Perry and Morris [5]; Flynn and Goldsmith [6]	Adapted
Family financial socialisation	FFS1	My parents discuss family financial matters with me.	Shim et al. [23]; Kaur and Singh [18]; LeBaron-Black et al. [24]	Adapted
Family financial socialisation	FFS2	My parents talk to me about the importance of saving.	Shim et al. [23]; Kaur and Singh [18]; LeBaron-Black et al. [24]	Adapted
Family financial socialisation	FFS3	My parents teach me how to make careful buying decisions.	Shim et al. [23]; Kaur and Singh [18]; LeBaron-Black et al. [24]	Adapted
Financial self-efficacy	FSE1	I can stick to my spending plan even when unexpected expenses arise.	Lown [25]; Kaur and Singh [18]; Montford and Goldsmith [8]	Adapted
Financial self-efficacy	FSE2	I can make progress toward my financial goals.	Lown [25]; Kaur and Singh [18]	Adapted
Financial self-efficacy	FSE3	I am confident in my ability to manage my finances.	Lown [25]; Kaur and Singh [18]; Dare et al. [7]	Adapted
Financial attitude	FA1	Controlling my monthly expenses is important to me.	Shockey [29]; Potrich et al. [28]; Bhatia and Singh [30]	Adapted
Financial attitude	FA2	Setting financial goals for the future is important to me.	Shockey [29]; Potrich et al. [28]; Bhatia and Singh [30]	Adapted
Financial attitude	FA3	Saving money every month is important to me.	Shockey [29]; Potrich et al. [28]; Bhatia and Singh [30]	Adapted
Self-control	SC1	I can resist the temptation to make unnecessary purchases.	Tangney et al. [31]; Bai [32]	Adapted
Self-control	SC2	I can control my spending when I am tempted to buy something I do not need.	Tangney et al. [31]; Bai [32]	Adapted
Self-control	SC3	I avoid impulsive purchases that could interfere with my financial goals.	Tangney et al. [31]; Bai [32]	Adapted
Financial management behaviour	FMB1	I pay my financial obligations on time.	Dew and Xiao [33]; Dare et al. [7]	Adapted
Financial management behaviour	FMB2	I keep a written or electronic record of my expenses.	Dew and Xiao [33]; Dare et al. [7]	Adapted
Financial management behaviour	FMB3	I stay within my budget or spending plan.	Dew and Xiao [33]; Dare et al. [7]	Adapted

Note. All 18 items were adapted to the student context and measured on a five-point scale from 1 = strongly disagree to 5 = strongly agree. The table reports item wording, source scale and adaptation status to support measurement transparency and replication.

Source: Authors' adaptation of the cited measurement scales

Academic review checked item coverage, clarity and construct separation. Anonymity, neutral instructions, separation of predictor and outcome blocks, mixed item order and no-right-answer wording were used as procedural remedies for common-method bias [37].

Data analysis

Frequencies and percentages described respondents. Means and standard deviations summarised the constructs. Welch's t-test compared gender groups; one-way ANOVA compared BCom, BBA and MCom/MBA; and eta squared described the omnibus programme effect. Age and monthly personal funds were treated as respondent-profile variables, while gender and programme were examined through supplementary group-comparison analyses. These demographic variables were not specified as antecedents in the theory-led structural model and therefore were not entered as statistical controls in the PLS-SEM equations.

SmartPLS 4 was used for PLS-SEM because the study examines multiple latent constructs and one specified mediation relationship, consistent with current reporting guidance [38].

Reflective measurement assessment used indicator loadings, Cronbach's alpha, rho_A, composite reliability (CR), average variance extracted (AVE) and the heterotrait–monotrait ratio (HTMT). Reference values were about 0.708 for loadings, 0.70–0.95 for reliability, above 0.50 for AVE and below 0.85 for HTMT [38, 39]. Structural assessment covered the variance inflation factor (VIF), path coefficients, R², Q² and 5,000-subsample bootstrapping. H7 was evaluated as mediation because both the direct financial self-efficacy (FSE) → financial management behaviour (FMB) path and the indirect FSE → financial attitude (FA) → FMB path was estimated. Because age, programme and monthly personal funds were not part of the theory-specified structural model, the FA and FMB path coefficients are reported as unadjusted associations among the hypothesised constructs rather than covariate-adjusted effects.

Common-method bias was also assessed statistically using the full-collinearity approach with a random dependent variable [40, 41]. A random variable was added as the endogenous variable and the six latent constructs were specified as predictors of this variable. The resulting inner VIF values were examined against the conservative threshold of 3.3. Values at or below 3.3 indicate that common-method bias is unlikely to be a serious concern [40].

Results

Respondent profile

Table 2 presents the gender, age, academic programme and monthly personal funds of the 464 respondents.

Table 2. Respondent Profile

Characteristic	Category	n	%
Gender	Male	206	44.4
	Female	258	55.6
	Total	464	100.0
Age	20 or below	139	30.0
	21–22	211	45.5
	23 or above	114	24.6
	Total	464	100.0
Programme	BCom	184	39.7
	BBA	154	33.2
	MCom/MBA	126	27.2
	Total	464	100.0
Monthly personal funds	Below ₹5,000	169	36.4
	₹5,000–₹9,999	181	39.0
	₹10,000 or above	114	24.6
	Total	464	100.0
<i>Note. Total rows are shown for each demographic variable. Percentages may differ slightly from 100 because of rounding. Personal funds include allowance and personal earnings.</i>			
<i>Source: Authors' analysis of collected survey data (n = 464).</i>			

As shown in Table 2, 55.6% of respondents were female, BCom was the largest programme group (39.7%) and 75.4% managed less than ₹10,000 per month.

Descriptive statistics

Mean scores were closely grouped across the six constructs: financial attitude 3.698 (SD = 0.583), financial management behaviour 3.657 (SD = 0.582), perceived financial literacy 3.614 (SD = 0.564), financial self-efficacy 3.552 (SD = 0.570), self-control 3.539 (SD = 0.581) and family financial socialisation 3.488 (SD = 0.569).

Gender and programme differences

Welch's independent-samples t-tests showed no statistically significant gender differences across the six constructs ($p = 0.119$ – 0.568), and all absolute Cohen's d values were 0.15 or lower. Programme differences are reported in Table 3. Table 3 compares BCom, BBA and MCom/MBA students using one-way ANOVA and eta squared. The omnibus test identifies whether any programme difference exists, not which pairs differ.

Table 3. One-Way ANOVA by Academic Programme

Construct	Means: BCom; BBA; MCom/MBA	F	p	η^2
Perceived financial literacy	3.58; 3.61; 3.67	1.09	0.336	0.005
Family financial socialisation	3.46; 3.50; 3.51	0.31	0.735	0.001
Financial self-efficacy	3.58; 3.42; 3.66	6.76	0.001	0.028
Financial attitude	3.69; 3.64; 3.77	1.80	0.166	0.008
Self-control	3.59; 3.47; 3.54	1.79	0.168	0.008
Financial management behaviour	3.65; 3.59; 3.74	2.45	0.087	0.011
Note. F tests use 2 and 461 degrees of freedom. η^2 = eta squared. The omnibus test does not identify which programme pairs differ.				
Source: Authors' analysis of collected survey data ($n = 464$).				

Table 3 shows a significant programme difference only for financial self-efficacy, $F(2, 461) = 6.76$, $p = 0.001$, $\eta^2 = 0.028$; the other five constructs did not differ significantly across programme groups.

Measurement model

Table 4 reports indicator loadings, internal consistency reliability and convergent validity. The assessment follows the PLS-SEM criteria specified in Section 3.3 [38, 39], and the corresponding item wording is provided in Table 1.

Table 4. Reflective Measurement Model

Construct	Loadings	α	rho_A	CR	AVE
Perceived financial literacy	0.917; 0.913; 0.917	0.904	0.910	0.940	0.839
Family financial socialisation	0.912; 0.906; 0.902	0.892	0.898	0.933	0.822
Financial self-efficacy	0.918; 0.913; 0.921	0.906	0.912	0.941	0.842
Financial attitude	0.922; 0.926; 0.921	0.913	0.919	0.945	0.852
Self-control	0.922; 0.918; 0.910	0.904	0.910	0.940	0.840
Financial management behaviour	0.920; 0.922; 0.917	0.909	0.915	0.943	0.846
Note. Each construct contains three indicators. α = Cronbach's alpha; rho_A = Dijkstra-Henseler's rho_A reliability coefficient; CR = composite reliability; AVE = average variance extracted.					
Source: Authors' SmartPLS 4 analysis of collected survey data ($n = 464$).					

As shown in Table 4, loadings ranged from 0.902 to 0.926, composite reliability from 0.933 to 0.945 and AVE from 0.822 to 0.852, satisfying the stated indicator-reliability, internal-consistency and convergent-validity criteria [38, 39]. At the same time, the unusually narrow range of high loadings and reliability values warrants cautious interpretation. All constructs were operationalised through brief, closely focused three-item contextualisation using the same response format, which can produce greater within-construct homogeneity than broader multi-item scales. The reported values

therefore demonstrate consistency for the administered items in this sample, but they should not be interpreted as evidence that the abbreviated measures capture the entire content domain of the original scales or that response-style effects are impossible.

Table 5 reports the HTMT ratios used to assess discriminant validity against the conservative .85 reference [39].

Table 5. Heterotrait–Monotrait Ratios

	PFL	FFS	FSE	FA	SC	FMB
PFL	–	0.067	0.110	0.400	0.054	0.261
FFS		–	0.064	0.349	0.107	0.161
FSE			–	0.405	0.055	0.449
FA				–	0.038	0.527
SC					–	0.355
FMB						–

Note. PFL = perceived financial literacy; FFS = family financial socialisation; FSE = financial self-efficacy; FA = financial attitude; SC = self-control; FMB = financial management behaviour. All HTMT values are below 0.85.

Source: Authors' SmartPLS 4 analysis of collected survey data (n = 464).

All HTMT ratios in Table 5 were below 0.85; the largest was 0.527 between financial attitude and financial management behaviour, supporting discriminant validity among the six constructs.

Common-method bias assessment

The full-collinearity model with a random dependent variable was estimated to assess common-method bias. The VIF values for all six latent constructs were below the 3.3 threshold. The results therefore indicate that problematic common-method bias was not evident in the data under the full-collinearity criterion [40].

Structural model and mediation

Table 6 summarises the six direct hypotheses and the *H7* mediation test using 5,000-subsample bootstrapping [38]. Mediation type is interpreted using the direct- and indirect-effect logic described by Zhao, Lynch and Chen [42].

Table 6. Structural Model and Mediation Results

H	Path/effect	β	t	P	VIF / 95% CI	Result
H1	PFL → FA	0.315	8.125	<0.001	1.013	Supported
H2	FFS → FA	0.277	7.190	<0.001	1.006	Supported
H3	FSE → FA	0.321	8.288	<0.001	1.013	Supported
H4	FA → FMB	0.379	9.627	<0.001	1.157	Supported
H5	SC → FMB	0.301	8.192	<0.001	1.002	Supported
H6	FSE → FMB	0.254	6.426	<0.001	1.159	Supported
H7	FSE → FA → FMB	0.122	6.670	<0.001	[0.088, 0.159]	Supported (complementary partial mediation)

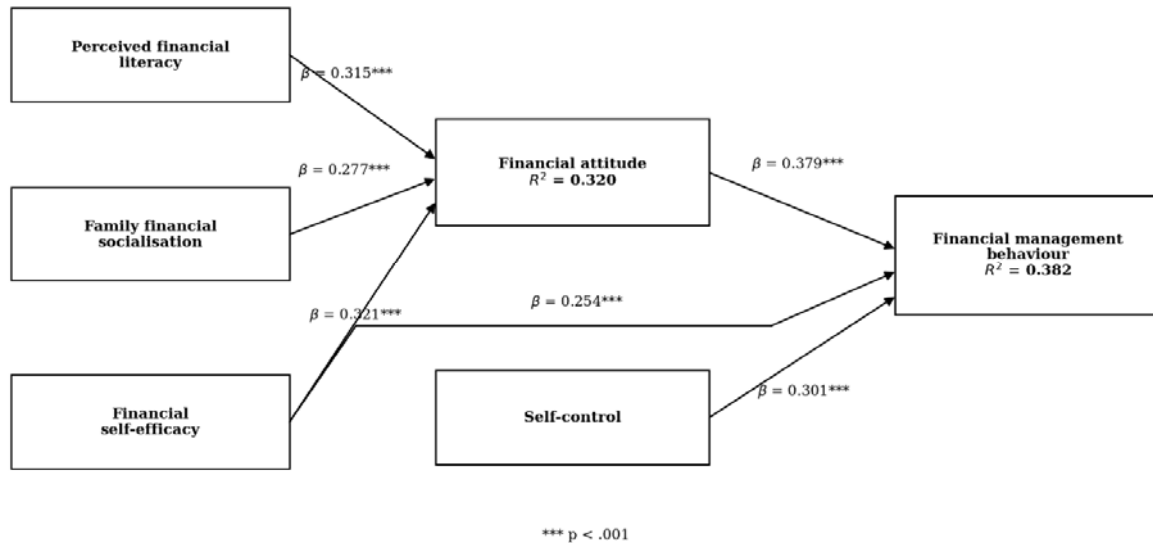
Note. Bootstrapping used 5,000 subsamples. For H1–H6, the sixth column reports inner VIF; for H7, it reports the percentile 95% bootstrap confidence interval. For H7, the direct effect = 0.254, indirect effect = 0.122, total effect = 0.376 and VAF = 32.45%; the positive significant direct and indirect effects indicate complementary partial mediation [42]. PFL = perceived financial literacy; FFS = family financial socialisation; FSE = financial self-efficacy; FA = financial attitude; SC = self-control; FMB = financial management behaviour.

Source: Authors' SmartPLS 4 analysis of collected survey data (n = 464).

Table 6 supports H1–H7. All six direct paths were positive and significant at $p < 0.001$. Financial self-efficacy had the largest association with financial attitude ($\beta = 0.321$), while financial attitude had the largest direct association with financial management behaviour ($\beta = 0.379$). For H7, the indirect FSE → FA → FMB effect was significant ($\beta = 0.122$, 95% CI [0.088, 0.159]) and the direct FSE → FMB effect remained significant and positive ($\beta = 0.254$, $p < 0.001$). The total FSE → FMB effect was 0.376 (0.254 + 0.122), yielding a variance accounted for (VAF) of 32.45% (0.122/0.376

$\times 100$). Because the direct and indirect effects were both significant and operated in the same direction, the mediation is classified as complementary partial mediation [42]. The model explained 32.0% of financial attitude and 38.2% of financial management behaviour; Q^2 values were 0.224 and 0.279, respectively. Figure 2 presents the six direct path coefficients and R^2 values.

Figure 2. Structural Model Results



Note. Standardised path coefficients and R^2 values are shown. $*** p < 0.001$.

Source: Authors' SmartPLS 4 analysis of collected survey data ($n = 464$).

Discussion

The findings indicate that student financial management behaviour is associated with perceived knowledge, family learning, self-efficacy, financial attitude and self-control. Gender differences were not significant, while Table 3 shows a programme difference only for financial self-efficacy. Because the design is cross-sectional, the structural coefficients are interpreted as associations.

Perceived financial literacy, family financial socialisation and financial self-efficacy were each positively associated with financial attitude (Table 6), supporting H1–H3. These findings are consistent with evidence that perceived knowledge and attitude are distinct but behaviourally relevant [21, 22], that family discussion, modelling and guided learning contribute to financial development [14, 15, 16, 17] and that financial self-efficacy is relevant to financial behaviour [7, 26, 27].

Financial attitude, self-control and financial self-efficacy were positively associated with financial management behaviour, supporting H4–H6. Table 6 also supports H7: financial attitude showed complementary partial mediation in the financial self-efficacy–financial management behaviour relationship. The indirect effect was 0.122, the direct effect was 0.254, and the resulting total effect was 0.376; the VAF was 32.45%. Financial attitude showed the largest direct behavioural association, while self-control and self-efficacy remained independently relevant, consistent with prior evidence on financial attitude [21, 22] and self-control [32].

Financial management behaviour is a practical outcome because it captures budgeting, saving, spending control and timely obligations and is linked with broader financial well-being [9, 34, 35, 43]. The results therefore support targeted financial education that addresses the specific capability gap through knowledge clarification, confidence-building practice, attitude formation or self-control support rather than relying on broad gender or programme labels.

Theoretical Contribution

The contribution is incremental and integrative rather than a claim of a new general theory. The model separates perceived financial literacy from financial self-efficacy using distinct measurement foundations [5, 6, 8], incorporates family financial socialisation using a validated measurement tradition [24] and positions financial attitude as the evaluative mechanism linking financial self-efficacy with behaviour while retaining self-control and self-efficacy as direct behavioural resources [44].

Accordingly, the framework is best described as an integrated financial capability model rather than a complete Theory of Planned Behaviour model. It uses the attitude-to-behaviour logic applied in student budgeting research [12] without claiming to test the full subjective norm, perceived behavioural control and intention sequence.

Educational and Practical Implications

Commerce and management departments can strengthen personal finance education through repeated practice. Useful activities include preparing a monthly cash plan, comparing borrowing costs, recording discretionary spending, setting a saving target and reviewing planned against actual expenditure. This emphasis on practice is consistent with evidence that knowledge gains do not always produce equally strong behavioural gains [2, 3] and that student financial capability should emphasise action [9].

Confidence can be developed through progressively more demanding financial tasks, while self-control can be supported through spending limits, waiting periods, alerts and automatic transfers. Family or mentor-based discussion and modelling can complement classroom practice, particularly for students with limited opportunities for financial learning at home.

Financial-service providers serving students can also support prudent behaviour through clear presentation of fees, due dates, borrowing costs and repayment consequences.

Limitations and Future Research

The study is cross-sectional, self-reported, single-source and based on purposive sampling; it therefore cannot establish temporal causation or population representativeness. Although procedural remedies were used and the full-collinearity assessment with a random dependent variable produced VIF values below 3.3, common-method bias cannot be ruled out completely in a single-source self-report design. Financial management behaviour was self-reported rather than verified through transaction data, and perceived financial literacy captures subjective knowledge. The theory-specified PLS-SEM model did not adjust the FA or FMB equations for age, academic programme or monthly personal funds; consequently, the reported structural coefficients should be interpreted as unadjusted associations. Future studies can test whether these relationships remain stable after theoretically justified demographic and resource controls are introduced. Measurement breadth is another limitation. Each construct was represented by three contextualised items; while parsimonious, this may under-represent broader source constructs, particularly financial management behaviour and self-control. The unusually tight clustering of high loadings and reliability estimates also deserves replication using fuller item pools, more heterogeneous wording and pre-specified response-quality checks. These limitations do not invalidate the reported measurement criteria, but they constrain how broadly the short form constructs and their high reliability can be interpreted. Future research can combine subjective and objective measures, use longitudinal or intervention designs, collect multi-source or behavioural data and test the model across other disciplines, states and non-student populations. Additional direct relationships with financial management behaviour may also be examined where theoretically justified.

Conclusion

Among commerce and management students in Karnataka, perceived financial literacy, family financial socialisation and financial self-efficacy were positively associated with financial attitude, while financial attitude, self-control and

financial self-efficacy were positively associated with financial management behaviour. Financial attitude showed complementary partial mediation in the financial self-efficacy–financial management behaviour relationship. The findings support an integrated view of student financial capability in which perceived understanding, social learning, confidence, evaluation and self-regulation operate as distinct but complementary resources.

Conflict of Interests

The authors declare that they have no conflict of interests.

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