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MANAGING STUDENT FINANCIAL WELL-BEING IN HIGHER EDUCATION: THE ROLE OF FINANCIAL BEHAVIOUR AND INSTITUTIONAL SUPPORT

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ABSTRACT

This study investigates the extent to which financial behaviour serves as a mediating mechanism linking parental financial socialisation to subjective financial well-being among Malaysian community college students. Drawing on Family Financial Socialisation Theory and an ecological framework of well-being, the research utilised a cross-sectional survey where 432 community college students in Johor, the majority of whom were from lower-income households, were involved in data collection. Data was analysed through Partial Least Squares Structural Equation Modelling (PLS-SEM) to test direct and indirect relationships. Results show parental financial socialisation significantly predicts both students' financial behaviour and subjective financial well-being. However, financial behaviour does not significantly predict subjective financial well-being, and no mediating effect is observed. Model explanatory power is modest, suggesting that while parental influences remain salient, behavioural execution alone is insufficient to account for students' well-being evaluations in financially constrained contexts. The findings challenge assumptions of financial well-being studies that place primary importance on behavioural aspects and recognise the importance of relational and contextual aspects that transcend behavioural aspects of the financial practices of individuals. The significance of this study is that it establishes that subjective perceptions of financial well-being of vulnerable students are more influenced by socialisation and perceptions of financial security than by behavioural aspects. In addition, this study extends beyond individual financial behaviour by examining how institutional support mechanisms and educational management practices condition the relationship between students' financial behaviour and their financial well-being

Keywords: **Subjective financial well-being, parental financial socialisation, financial behaviour, PLS-SEM.**

INTRODUCTION

Financial well-being become an important issue to be considered by people in low-income families, as the experience of financial difficulties over time has often been linked to mental health problems, life satisfaction, and the ability to look ahead financially. In addition to the objective measurements of financial position, such as the individual's or household's income, savings, and financial management, financial well-being also encompasses the individual's own views of their financial management practices. These views are the individual's perception of financial security and their perceptions of control, which are collectively used to capture how individuals evaluate their own financial well-being in general (Brüggen et al., 2017). In the case of economically vulnerable individuals, such evaluations are influenced by the individuals' or the household's lack of resources, cash flow volatility, and vulnerability to financial shocks, making the individual's experience of financial well-being an important way to gain an understanding of their financial experience beyond their objective financial position.

Nonetheless, the empirical research has largely followed the behaviourally framed paradigm of financial well-being, focusing on prudent behaviour such as budgeting, saving, and managing debt, and viewing financial capability as an important means by which financial education can enhance financial literacy and encourage positive financial behaviour (Xiao & O'Neill, 2016). Nonetheless, in the economically disadvantaged setting, the structural barriers may mitigate the role of prudent behaviour and its subsequent realization of financial security or satisfaction (Buckland, 2010). This would indicate that behaviour remains important but not sufficient in accounting for the experience of financial well-being when faced with economic constraints. A developmentally informed perspective would place parental financial socialization as the formative factor influencing individuals' attitudes and subsequent financial behaviour. One theoretical perspective, the family financial socialization perspective, argues that individuals are exposed to financial norms and attitudes directly and indirectly by way of parental instruction and interaction with the family's financial management, which enables the construction of financial meaning-making long before the individual is financially independent (Gudmunson & Danes, 2011). This is especially pertinent to those from low-income families, who are exposed to both the learning and the source of financial constraint and support simultaneously. Recent empirical findings have shown the long-term relationship between parental financial socialization and financial behaviour among adults after adolescence (Allsop et al., 2021; Mat Jusoh, 2024; Shim et al., 2015), which further confirms the notion that financial socialization is indeed the formative factor.

Despite growing recognition of socialisation influences, parental financial socialisation is still predominantly examined as an antecedent of financial behaviour, rather than being directly tested in relation to subjective financial well-being. As a result, it remains unclear whether perceived financial security is shaped mainly by financial behaviour or by earlier socialisation processes and internalised financial beliefs that continue to influence perceptions even when behaviour is prudent. The need for clarity is particularly acute in economically constrained settings and emerging-economy contexts, where financial behaviour may be constrained by opportunity structures rather than preferences alone (Kumar et al., 2025; Seyfi et al., 2025). Relatedly, ecological and life-course perspectives conceptualise financial well-being as evolving through ongoing person–environment interactions across life stages and events, rather than as the product of isolated financial behaviours at a single point in time (Salignac et al., 2020). These perspectives collectively motivate models that test both behavioural and socialisation pathways to subjective financial well-being, rather than assuming behaviour is the dominant or sufficient mechanism.

As far as these matters are concerned, the present study aims to investigate how parental financial socialisation and financial behaviour can be related to subjective financial well-being among lower-income (B40) households of Malaysian college students. Thus, the study intends to address the following elements of (a) how parental financial socialisation is associated with financial behaviour, (b) how parental financial socialisation is associated with subjective financial well-being, (c) how financial behaviour is associated with subjective financial well-being, and (d) whether financial behaviour plays a role in linking parental financial socialisation to subjective financial well-being.

By delving into these elements, this study contributes to clarifying the relative roles of family socialisation and individual behaviour in shaping subjective financial well-being and to strengthen the understanding of a more context-sensitive financial well-being in low-income populations.

While student financial behaviour has been widely examined, less attention has been given to how higher education institutions manage, support, and shape students' financial well-being through leadership, policy, and support systems. From an educational management perspective, student financial well-being should be viewed not only as an individual outcome but also as an indicator of institutional effectiveness in student support and development.

Conceptual Foundations and Theoretical Underpinning
According to this study, financial well-being cannot be fully described by objective financial measures, as people can still be financially vulnerable even if their levels of income or financial behaviours look reasonable. Thus, subjective financial well-being can be described as a set of evaluative beliefs regarding financial adequacy, security, and control, based on personal experiences as well as the social contexts within which financial meanings are learned, interpreted, and constructed. In this respect, Salignac et al. (2020) use the ecological life course perspective to conceptualize financial well-being, emphasizing that financial experiences as well as perceptions over time can be shaped by the interaction between individuals and their environments, especially for low-income families, for whom limited financial means, increased vulnerability to financial risk, as well as a lack of financial slack may impinge on financial security despite sound financial management practices.

Drawing on this more general conceptualisation, the current research explicitly turns to the Family Financial Socialisation Theory (FFST) to better understand the process by which financial attitudes and perceptions are developed. FFST views the parental figure as the key agent in the financial socialisation process and the role of such individuals in communicating and influencing financial norms, values, and approaches to cope with finances through the processes of communication, guidance, and role-modelling. Importantly, financial socialisation can be considered to occur through both explicit and implicit means, such that financial learning can occur through the process of observation and exposure even in the absence of intentional parental instruction (Gibby et al., 2021; Gudmunson & Danes, 2011). Under the FFST model, it would be expected that parental influence would impact not only financial practices (e.g., budgeting and saving practices) but also the way in which an individual perceives and feels about their own financial situation, such that a causal relationship between parental financial socialisation and individual perceptions of financial well-being becomes plausible.

The relevance of this lens is supported by recent evidence. For instance, Kumar et al. (2025) provide evidence that financial socialization by parents is significantly related to financial well-being in an emerging economy. This suggests that socialization processes continue to be relevant even when there are structural limitations to the degree to which sensible behaviour can impact upon feelings of financial security. Taken as a whole, these views suggest that it is valid to specify financial socialization as a fundamental driver of financial behaviour as well as subjective financial well-being, although acknowledging that behavioural processes are constrained to impact upon well-being.

Parental Financial Socialisation (PFS)
Parental financial socialisation (PFS) is a family-based process through which parents shape children's money-related values, norms, knowledge, and behavioural tendencies through everyday interaction and exposure. Within Family Financial Socialisation Theory, parents are positioned as primary socialising agents whose influence operates not merely through transmitting information, but through repeated experiences that cultivate enduring orientations toward money and financial decision-making (Gudmunson & Danes, 2011; LeBaron & Kelley, 2021). Conceptually, this matters because PFS is not reducible to a single parenting style effect; it also reflects concrete socialisation mechanisms through which children learn what money means, how it should be managed, and how financial strain or stability is interpreted.

A critical refinement in this literature is the distinction between explicit and implicit financial socialisation. Explicit

socialisation involves intentional parental actions such as direct instruction, planned conversations, and purposeful guidance. Whereas, implicit socialisation occurs through observation and immersion in the household's financial routines and emotional climate, such as how bills are handled, how scarcity is navigated, and which financial behaviours are normalised. Evidence indicates that both implicit socialisation (modelling) and explicit socialisation (discussion and guided experiences) are consequential. However, they may operate through different proximal pathways: explicit processes are more directly linked to financial knowledge, confidence, and behaviour development, whereas modelling is closely associated with the formation of financial attitudes and the adoption of parents' observed financial practices (Gibby et al., 2021; LeBaron & Kelley, 2021). For the present study, this distinction supports treating PFS as a foundational upstream construct capable of influencing later financial functioning through more than one developmental channel.

Recent empirical work further suggests that PFS is best treated as multidimensional. Measurement developments have formalised three primary dimensions, which are parental modelling, financial discussion, and experiential learning, reflecting the reality that children learn from what parents do, what parents say, and what parents enable them to practise (LeBaron-Black et al., 2021). This is especially relevant in economically constrained settings because experiential learning opportunities and the nature of parental modelling may differ systematically under low-income conditions, where financial decision-making often involves trade-offs under scarcity rather than discretionary optimisation. In such contexts, PFS may socialise not only habits but also expectations and perceived control, which are directly relevant to subjective financial well-being.

Importantly, evidence indicates that parental financial socialisation remains salient in economically constrained contexts and cannot be reduced to parental socioeconomic background alone. In a mixed-method study of Gen-Z in Pakistan, parents' education and occupation explained little variation in subjective financial well-being and financial behaviour, while qualitative findings highlighted diverse parental socialisation strategies shaping young people's financial orientations and perceived satisfaction (Abdul Ghafoor & Akhtar, 2024). Complementing this, longitudinal evidence shows that parental financial socialisation during adolescence predicts financial outcomes in emerging adulthood, reinforcing the developmental rationale for modelling PFS as an upstream influence rather than a contextual footnote (Allsop et al., 2021). Taken together, theory and empirical evidence support positioning parental financial socialisation as a key antecedent in the present framework, with downstream implications for both financial behaviour and subjective financial well-being among individuals from low-income households.

Financial Behaviour (FB)

Financial behaviour (FB) generally refers to how individuals manage their money in everyday life, particularly through routine practices such as spending within their means, setting aside savings for emergencies, and handling credit and bill payments. These behaviours reflect the ways people navigate daily financial decisions, often within limited resources (Barbić et al., 2019; Xiao & O'Neill, 2016). In financial well-being research, FB is typically captured through actions such as budgeting, saving, monitoring expenses, planning for upcoming financial commitments, and managing debt responsibly. Emphasising behaviour highlights the role of repeated day-to-day financial practices in fostering financial stability and minimising unnecessary financial risks. From a financial capability perspective, financial behaviour refers to the implementation of financial knowledge in practical situations (Gibby et al., 2021; Kumar et al., 2025; Xiao et al., 2022).

In many empirical models, responsible financial behaviour is positioned as a proximal predictor of financial well-being because it can reduce financial strain, improve perceived control, and enhance individuals' evaluations of their financial situation. For example, developmental models of young adults' financial outcomes have consistently treated behavioural practices as a key pathway to broader life success and well-being, insofar as behaviours translate resources and intentions into concrete financial management (Lone & Bhat, 2024; Lusardi & Mitchell, n.d.; Shim et al., 2009). In this sense, FB remains theoretically relevant even when financial well-being is conceptualised as subjective, because behaviours such as planning, saving, and disciplined spending are assumed to support feelings of security and control through improved financial organisation and reduced uncertainty (Lone & Bhat, 2024;

Sangeeta et al., 2022).

However, the behavioural pathway to subjective financial well-being is not necessarily uniform across contexts. Among individuals from low-income households, income constraints and unavoidable expenses can limit the extent to which prudent financial behaviours translate into perceived improvement (Karlan et al., 2014; Van Nguyen et al., 2022). In financially difficult situations, financial behaviour may be shaped by the need to manage income shortfalls, high debt servicing, and unexpected expenses, rather than by optimising choices (Chong et al., 2021). Thus, doing the right thing with money may not always improve how people feel about their financial situation when financial problems remain. This idea fits with ecological and life-course views, which show that financial behaviour works within broader living conditions that can strengthen or weaken its effect on financial well-being (Salignac et al., 2020). Consistent with this view, recent evidence from emerging-economy settings also indicates that although financial behaviour is related to financial well-being, its explanatory role may be interdependent with upstream influences such as financial socialisation and attitudinal resources (Kumar et al., 2025).

Taken together, the literature justifies modelling FB as a theoretically meaningful construct in the present framework, while avoiding the assumption that behaviour is universally sufficient for generating higher subjective financial well-being. Instead, FB is treated as a plausible, testable pathway that may link parental financial socialisation to subjective financial well-being, but whose strength can vary depending on economic constraints and the extent to which behavioural efforts can realistically translate into perceived financial security.

Subjective Financial Well-Being (SFWB)

Subjective financial well-being (SFWB) captures how individuals evaluate their financial lives, typically in terms of perceived adequacy, security, and control rather than merely describing objective economic conditions such as income or assets. Conceptual work argues that financial well-being is inherently perceptual because it reflects whether individuals believe they can sustain their current and anticipated desired living standards and experience financial freedom, given their circumstances (Brüggen et al., 2017). Consistent with an ecological life-course perspective, SFWB is shaped by the dynamic interplay between personal resources, contextual constraints, and evolving expectations across time, meaning it can vary even among individuals with similar objective conditions (Salignac et al., 2020). In economically constrained settings, this becomes especially salient: individuals may report low SFWB despite prudent efforts because perceived security is heavily influenced by vulnerability to shocks, limited buffers, and uncertainty about future stability.

Consistent with this, measurement research demonstrates that subjective financial well-being (SFWB) is a multidimensional construct rather than a unitary affective state. Netemeyer et al. (2018) conceptualise perceived financial well-being as comprising distinct evaluative dimensions related to present financial strain and anticipated future financial security, and show that these dimensions are strongly associated with broader well-being outcomes. Building on this line of work, Sorgente and Lanz (2019) developed the Multidimensional Subjective Financial Well-Being Scale (MSFWBS), which operationalises SFWB across several domains, including general financial well-being, money management, social comparison, perceived financial resources, and expectations about the financial future. This multidimensional perspective is particularly relevant for explaining why individuals may report low subjective financial well-being despite engaging in responsible financial behaviours, as it captures evaluative dimensions that are not reducible to contemporaneous behavioural practices.

The subjective nature of financial well-being has direct implications for explanatory models in low-income contexts. Behaviour-based pathways can matter, but they are not guaranteed to translate into higher SFWB when structural constraints dominate lived experience. Conceptual frameworks emphasise that the impact of financial behaviour on perceived financial well-being is context-dependent, with structural and situational conditions acting as boundary factors that can strengthen or limit behavioural effects (Brüggen et al., 2017; Salignac et al., 2020). Accordingly, SFWB is theoretically positioned in the present study as an outcome shaped not only by financial behaviour but also by upstream influences such as parental financial socialisation, which may cultivate enduring money-related beliefs,

perceived control, and expectations that shape financial evaluations across time. This justification supports treating SFWB as a meaningful dependent construct for individuals from low-income households, for whom perceived financial security and future outlook are often central to the lived experience of financial vulnerability.

Hypotheses Development: Parental Financial Socialisation and Financial Behaviour (PFS → FB)

Family Financial Socialisation Theory (FFST) provides a clear theoretical basis for expecting parental financial socialisation to shape individuals' later financial behaviour. The theory posits that parents influence children's financial development through repeated exposure to household financial practices, communication about money, and opportunities for guided practice, which together foster behavioural tendencies such as planning, spending restraint, saving habits, and responsible debt management (Gudmunson & Danes, 2011; LeBaron-Black et al., 2021). In this view, financial behaviour is learned and reinforced over time through family-based socialisation processes, including parental modelling, money-related discussions, and experiential learning. Accordingly, individuals who report stronger parental financial socialisation are expected to demonstrate more responsible financial behaviours in later life, reflecting the internalisation of practical money-management routines and enduring beliefs about how finances should be managed.

Empirical research is broadly consistent with this expectation. Studies of family financial socialisation indicate that parental modelling and parent–child financial discussion and increasingly experiential learning opportunities are associated with later financial management behaviours, including budgeting, saving, and broader money-management competence, although effect sizes and consistency vary across studies (LeBaron & Kelley, 2021). Empirical evidence indicates that parental financial conditions and socialisation-related practices during adolescence are associated with financial outcomes in emerging adulthood (Curran et al., 2018), suggesting that early parental influence can have enduring links to later financial functioning beyond contemporaneous circumstances (Allsop et al., 2021; Cwynar et al., 2019; Khatun, 2018). Related work also indicates that the distinction between implicit and explicit socialisation is meaningful, with both forms contributing to later financial outcomes, reinforcing the premise that financial behaviour can be shaped through both intentional guidance and routine observation (Gibby et al., 2021; LeBaron-Black et al., 2023). This theoretical and empirical convergence supports the expectation that parental financial socialisation serves as an upstream determinant of financial behaviour, including among individuals from low-income households, where behavioural practices may be particularly consequential for coping with constraint. Therefore, consistent with prior theory and evidence, the present study proposes the following hypothesis:

H1: *Parental financial socialisation is positively associated with financial behaviour among individuals from low-income households.*

Hypotheses Development: Parental Financial Socialisation and Subjective Financial Well-Being (PFS → SFWB)

Family Financial Socialisation Theory (FFST) provides a clear rationale for a direct association between parental financial socialisation and subjective financial well-being. Beyond shaping what children do financially, parents shape what children internalise about money, security, control, and coping through modelling, discussion, and guided experiences (Gudmunson & Danes, 2011; LeBaron & Kelley, 2021; LeBaron-Black et al., 2021). These beliefs can persist into adulthood and inform how individuals evaluate their financial situation, including perceived strain and perceived future security, which are the core evaluative components of subjective financial well-being (Netemeyer et al., 2018). This pathway is particularly plausible in low-income contexts, where structural constraints and limited buffers may weaken the extent to which prudent behaviour translates into felt security, increasing the role of appraisal and coping meanings shaped earlier in life (Buckland, 2010; Salignac et al., 2020). Empirically, longitudinal evidence shows that adolescent parental financial socialisation and related family financial conditions predict emerging-adult financial outcomes linked to perceived functioning and satisfaction (Allsop et al., 2021). Evidence from emerging-economy settings similarly suggests that parental socialisation remains meaningfully related to financial well-being under constraint (Kumar et al., 2025). Therefore, consistent with prior theory and evidence, the following hypothesis is proposed;

H2: *Parental financial socialisation is positively associated with subjective financial well-being among individuals from low-income households.*

Hypotheses Development: Financial Behaviour and Subjective Financial Well-Being (FB → SFWB)

Financial behaviour is typically positioned as a proximal determinant of subjective financial well-being because routine money-management practices such as budgeting, saving, timely bill payment, and prudent credit use, which can reduce disorganisation, strengthen perceived control, and lower exposure to avoidable financial stressors (Xiao & O'Neill, 2016). This behavioural pathway aligns with financial well-being frameworks that conceptualise perceived well-being as partly shaped by how effectively individuals manage day-to-day finances and buffer against uncertainty (Brüggen et al., 2017). Consistent with this, perceived financial well-being captures evaluative dimensions tied to current strain and anticipated future security (Netemeyer et al., 2018), both of which are plausibly improved when financial behaviour is stable and disciplined.

Empirically, evidence from economically constrained contexts supports the relevance of financial behaviour for perceived financial well-being. Among Malaysia's B40 group, financial behaviour is reported as a key correlate of financial well-being, alongside financial stress and financial literacy (Rahman et al., 2021). At the same time, ecological perspectives emphasise that the translation of prudent behaviour into perceived security is context-dependent; structural constraints, limited buffers, and persistent scarcity can weaken the extent to which behaviour produces felt improvement (Buckland, 2010; Salignac et al., 2020). For low-income households, financial behaviour may therefore function less as "optimisation" and more as coping and trade-off management. Nevertheless, even under constraint, disciplined routines may still support subjective financial well-being by improving organisation and perceived control. Therefore, the present study proposes the following hypothesis:

H3: *Financial behaviour is positively associated with subjective financial well-being among individuals from low-income households.*

Hypotheses Development: Mediating Role of Financial Behaviour (PFS → FB → SFWB)

Family Financial Socialisation Theory (FFST) proposes a developmental sequence in which parental financial socialisation shapes later financial functioning by building durable money-management routines and self-regulatory habits through modelling, discussion, and guided practice (Gudmunson & Danes, 2011; LeBaron & Kelley, 2021; LeBaron-Black et al., 2021). These learned routines are expected to translate into more responsible financial behaviour in adulthood. In turn, financial capability and financial well-being frameworks position such behaviour as a proximal pathway to subjective financial well-being because disciplined money management can reduce day-to-day financial disorder, strengthen perceived control, and support feelings of stability (Brüggen et al., 2017; Xiao & O'Neill, 2016). This logic is consistent with the evaluative nature of subjective financial well-being, which incorporates both current financial strain and anticipated future security (Nanda & Banerjee, 2021; Netemeyer et al., 2018).

Empirical evidence proposes that the parents' financial socialisation and family financial conditions during adolescence are linked to children's later financial satisfaction in emerging adulthood (Algarni et al., 2024; Curran et al., 2018; Pak et al., 2024). In economically constrained settings, behavioural pathways remain relevant but may operate under boundary conditions, such as structural constraints and limited financial slack, which can weaken the extent to which prudent behaviour produces financial improvement (Buckland, 2010; Salignac et al., 2020). Accordingly, the indirect pathway is expected to be present but potentially attenuated in low-income contexts, making it theoretically and empirically appropriate to test whether financial behaviour transmits part of the association between parental financial socialisation and subjective financial well-being. Therefore, the present research proposes the following hypothesis:

H4: *Financial behaviour mediates the relationship between parental financial socialisation and subjective financial*

*well-being among individuals from low-income households.*

Summary

Synthesising the preceding discussion, the literature indicates that subjective financial well-being is shaped not only by what individuals do to manage money, but also by upstream developmental influences that form enduring money-related orientations and standards of evaluation (Brüggen et al., 2017; Salignac et al., 2020). Family Financial Socialisation Theory provides the central explanatory logic for this study by positioning parents as primary financial socialising agents whose modelling, communication, and facilitation of experiential learning can shape later financial functioning (Gudmunson & Danes, 2011; LeBaron & Kelley, 2021). Consistent with this theoretical lens and supporting evidence, parental financial socialisation is expected to be positively associated with financial behaviour (H1) and subjective financial well-being (H2). Financial behaviour is further positioned as a proximal determinant of subjective financial well-being (H3), while acknowledging that its influence may be attenuated under economic constraint when prudent practices cannot fully offset structural vulnerability (Salignac et al., 2020). Finally, given the developmental sequence implied by socialisation perspectives, financial behaviour is hypothesised to transmit part of the association between parental financial socialisation and subjective financial well-being (H4).

From an educational management standpoint, student financial well-being is increasingly recognised as part of broader student support and retention strategies. Universities play a critical role through financial counselling services, leadership-driven financial literacy initiatives, and institutional policies that reduce financial stress. Accordingly, Figure 1 below illustrates the conceptual framework of the study. The framework specifies parental financial socialisation as an upstream antecedent of both financial behaviour and subjective financial well-being, while modelling financial behaviour as a potential mediator through which parental socialisation relates to individuals' perceived financial well-being. This framework provides an empirically testable representation of the hypothesised relationships and guides the subsequent methodological approach and analysis.

Figure 1

Conceptual Framework of The Relationships Among Parental Financial Socialisation, Financial Behaviour, And Subjective Financial Well-Being
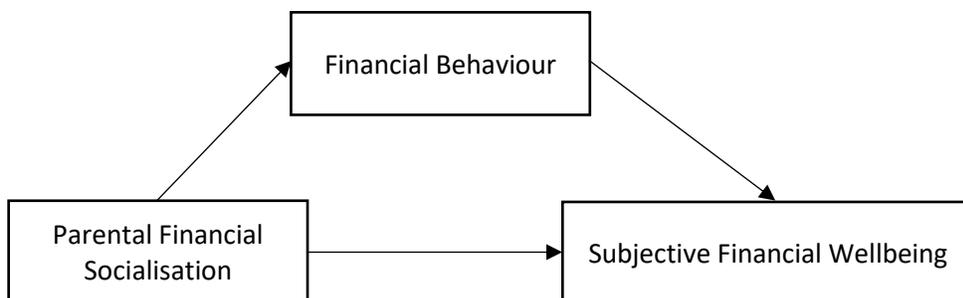
In this study, institutional support is conceptualised as an educational management mechanism through which leadership practices and student support systems influence the effectiveness of financial behaviour in improving student financial well-being.

RESEARCH METHODOLOGY

Research Design

This research utilised a cross-sectional, single-wave survey design to investigate the relationships between parental financial socialisation, financial behaviour, and subjective financial well-being. A self-administered online questionnaire was utilized and administered through Google Forms to Malaysian young adults from low-income household (B40) backgrounds. A multi-analytic approach through descriptive analysis was used through Jamovi, and PLS-SEM of SmartPLS was also integrated to hypothesise relationships between the studied variables. The findings

of the study are interpreted as theory-consistent associations rather than definitive causal effects.

Population and Sampling

This research targeted students in community colleges in the state of Johor and had a stratified sampling design in which each community college was considered a stratum to get a representative sample. Stratification was done based on enrolment size to get a proportionate sample. The focus on higher education students is particularly relevant for educational management research, as universities are increasingly accountable for student well-being outcomes through structured support and governance mechanisms.

Krejie and Morgan (1970) was used as a reference in determining the minimum required sample size for the study. The estimated sample was then distributed proportionally based on the proportion allocation technique proposed by Chua (2020).

A self-reporting online questionnaire administered through Google Forms was used as the data collection method. This was done within the specified strata of participants. This led to the gathering of a total of 432 responses, which was in excess of the required minimum number of samples. Although the colleges were generally represented proportionally, some colleges responded in excess of the minimum number required.

The participants consisted of students from the community college, ranging from below the age of 18 to above the age of 28 years. Socioeconomic status was described through the use of income brackets for the households. Even though income was not used as an eligibility criterion, the dominant group of respondents came from lower-income (B40) households, thus adding to the relevance of the results to those with financial constraints at the higher education level.

Instrumentation

A structured self-administered questionnaire set in the Malay language was used as the data collection instrument. Additionally, a 5-point Likert scale ranging from 1 (strongly disagree to 5 (strongly agree) was incorporated into the instrument, which was adapted from prior studies, translated, and reviewed for linguistic and cultural suitability prior to administration, as detailed in Section 3.4. In addition, although the questionnaire initially included the full item sets from the adapted instruments, the present article reports only the items retained after measurement model assessment.

Parental financial socialisation (PFS) was measured using six items adapted from Khatun (2018) (PFS1, PFS2, PFS3, PFS6, PFS7, PFS8). Specifically, the retained items captured parental role modelling (PFS1), openness to money-related discussion (PFS2), monitoring of saving and spending (PFS3; PFS6), direct instruction to spend prudently (PFS7), and early cultivation of saving habits (PFS8). Financial behaviour (FB) was assessed using four items adapted from Md. Sapir @ Md. Shafik and Wan Ahmad (2020) and Yew et al. (2017) (FB7–FB10). The retained items reflect financial self-regulation under scarcity: limiting discretionary consumption, cutting back spending when problems arise, avoiding waste, and avoiding high-risk informal debt (FB7–FB10). Subjective financial well-being (SFWB) was measured using four items adapted from the InCharge Financial Distress/Financial Well-Being Scale (Prawitz et al., 2006) (SFWB2, SFWB5, SFWB6, SFWB7). The retained items captured respondents' subjective appraisal of financial strain and day-to-day financial pressure, including feelings about their current financial position (SFWB2), perceived difficulty in meeting desired expenses due to limited ability to cover costs (SFWB5), frequency of having to wait for the next allowance or financial payment (SFWB6), and overall personal financial stress level (SFWB7). Where necessary, item coding was aligned so that higher scores consistently indicated higher levels of the construct.

Finally, the questionnaire included demographic and background variables to profile the sample and support the interpretation of findings. These covered gender, marital status, place of origin (urban/rural), age group, computer literacy level, parents' education, household income bracket, and community college branch. The survey also captured financial exposure indicators (formal personal finance education, prior treasurer role, loan literacy

awareness, and current debt status), as well as sources of tuition financing and spending priorities.

Translation and Cultural Adaptation

The questionnaire was translated and culturally adapted into the Malay language using a structured cross-cultural procedure. Two experts completed independent forward translations, English to Malay language, which were reconciled into a single version, followed by back-translation, Malay to English language, and harmonisation to confirm equivalence with the source items. Reconciliation prioritised cultural appropriateness and terminology consistency (Cruchinho et al., 2024). Subsequently, the translated instrument was reviewed by language experts for wording accuracy and readability and by finance-domain experts for content relevance and construct alignment. Finally, a pilot test in a different community college assessed clarity, ambiguity, and completion time, and minor wording refinements were made before the main survey (Cruchinho et al., 2024).

Data Collection Procedures

Data collection was conducted across Johor community colleges following formal administrative approval from the Pusat Penyelidikan dan Inovasi, Politeknik dan Kolej Komuniti, Ministry of Higher Education Malaysia. Access to each participating college was coordinated directly by the researcher. The researcher visited each college to obtain institutional cooperation, after which a designated lecturer at each site served as a liaison to facilitate communication and distribute the survey link to students.

The questionnaire was administered as a self-administered online survey using Google Forms. Initial engagement with participating colleges occurred over approximately two weeks through site visits; thereafter, the survey remained open, and responses were accumulated over approximately two months via online distribution. Participation was voluntary, and study information was provided at the beginning of the Google Form. Informed consent was obtained electronically before accessing the questionnaire items. No personally identifying information was collected.

No additional procedural remedies were implemented specifically to minimise common method bias beyond standard assurances of confidentiality and voluntariness. Accordingly, potential common method effects were addressed at the analysis stage using statistical diagnostics reported in the data screening and model assessment procedures.

Data Screening and Preparation

Outliers Univariate and Multivariate Checks. Univariate outliers were screened using standardized scores, with cases flagged when the absolute z-score exceeded 3.29 for the construct mean scores (PFS, FB, and SFWB). No cases exceeded the criterion for any construct (0/432), indicating no univariate outliers (Table 1). Mahalanobis distance (D^2) computed from the same construct mean scores was used to assess multivariate outliers. Using a chi-square cutoff at $p < .001$ (df = 3; χ^2 critical value = 16.27), no cases exceeded the threshold (maximum D^2 = 15.24), indicating no multivariate outliers (0/432) (Table 2).

Table 1
Univariate Outlier Screening Results (|Z| > 3.29) For Construct Mean Scores

Constructs	Result	Counts	% of Total	Cumulative %
PFS	false	432	100.0%	100.0%
FB	false	432	100.0%	100.0%
SFWB	false	432	100.0%	100.0%

Table 2

Multivariate Outlier Screening Using Mahalanobis Distance D2 (P < .001, Df = 3)

Screening method	Variables used	df	Cutoff (χ^2, p < .001)	Maximum D^2	Cases flagged (n)	% flagged	Decision
Mahalanobis distance	PFS_mean, FB_mean, SFWB_mean	3	16.27	15.24	0 (of 432)	0.0%	No multivariate outliers detected

Normality

Normality was assessed descriptively for the construct mean scores. Skewness ranged from −0.580 to −0.037, and kurtosis ranged from −0.678 to 0.752, indicating no severe departures from normality.

Common Method Bias Diagnostics

An inner VIF value in SmartPLS was used to assess the collinearity among predictor constructs. All VIFs were low (1.000–1.166), indicating no multicollinearity concerns and reducing the likelihood that common method variance materially inflated the structural estimates (Hair et al., 2022) (Table 3).

Table 3

Inner Model Collinearity Diagnostics (VIF)

Path	VIF
PFS → FB	1.000
FB → SFWB	1.166
PFS → SFWB	1.166

Data Analysis

Descriptive statistics and preliminary data screening were conducted using Jamovi. Then, the hypothesis testing was conducted using partial least squares structural equation modelling (PLS-SEM) in SmartPLS 4. PLS-SEM was selected because the study specifies a mediated model and focuses on estimating explained variance in the endogenous constructs, while remaining robust to departures from multivariate normality that are common in survey data (Hair et al., 2022).

Measurement Model Assessment. The measurement model was assessed prior to structural model testing. All constructs were modelled reflectively. Indicator reliability was evaluated using outer loadings, with loadings of .708 or higher treated as desirable and lower values considered for removal only when theoretically defensible and when their exclusion improved measurement quality (Hair et al., 2022). Internal consistency reliability was assessed using composite reliability (CR) and rhoA, with values ≥ .70 indicating acceptable reliability; excessively high values (e.g., > .95) were interpreted as potential redundancy (Hair et al., 2022). Convergent validity was evaluated using average variance extracted (AVE), with AVE ≥ .50 indicating adequate convergent validity (Hair et al., 2022). Discriminant validity was examined using the heterotrait–monotrait ratio (HTMT), with HTMT values below .85 or .90 taken as evidence of construct distinctiveness (Hair et al., 2022; Henseler et al., 2015). Any item removal decisions were made to balance psychometric quality with conceptual coverage.

Structural Model Assessment. The structural model was evaluated once the acceptable measurement properties had been established. Collinearity among predictor constructs was assessed using inner-model variance inflation factors (VIF), with values below 3.3 or 5.0 indicating no problematic collinearity (Hair et al., 2022). Path coefficients were estimated, and their significance was tested using bootstrapping with 5,000 resamples, two-tailed tests, and α = .05 (Hair et al., 2022). Model explanatory power was assessed via coefficients of determination (R^2) for the endogenous constructs, and effect sizes (f^2) were examined to ascertain the relative contribution of each predictor

(Hair et al., 2022). Predictive relevance was assessed using Stone–Geisser's Q^2 obtained via the blindfolding procedure (omission distance, D = 7), where Q^2 values above zero indicate predictive relevance for the endogenous construct (Hair et al., 2022)

Mediation Testing. The mediating role of financial behaviour was tested by evaluating the indirect effect of parental financial socialisation on subjective financial well-being via financial behaviour. Indirect effects were assessed using the same bootstrapping procedure (5,000 resamples), with inference based on bootstrapped confidence intervals; mediation was supported when the indirect effect confidence interval excluded zero (Hair et al., 2022).

RESULTS

Respondent Profile
A total of 432 samples were retained. There were no cases to be deleted, as there were no missing values. Tests of outliers using Mahalanobis distance and z-scores did not indicate any issues, so there were no cases to be deleted. Although PLS-SEM does not need normally distributed data, tests of distributions performed in Jamovi revealed that there were no issues regarding skewness and kurtosis, so it was concluded that the data were ready for PLS-SEM analysis (Hair et al., 2022).

Descriptive Statistics
Descriptive statistics were computed for the construct mean scores (N = 432). Parental financial socialisation (PFS_mean) yielded a mean of 3.66 (SD = 0.787; median = 3.67), with observed scores ranging from 1.17 to 5.00. Financial behaviour (FB_mean) recorded a mean of 3.45 (SD = 0.947; median = 3.25), with an observed range of 1.00 to 5.00. Subjective financial well-being (SFWB_mean) showed a mean of 2.73 (SD = 0.614; median = 3.00), with observed scores ranging from 1.00 to 4.50. These descriptives were generated using Jamovi (The Jamovi project, 2025).

Common Method Bias and Collinearity Diagnostics
Collinearity in the structural model was assessed using inner VIF values obtained from SmartPLS. The VIFs were 1.000 for PFS → FB and 1.166 for both FB → SFWB and PFS → SFWB, indicating no multicollinearity concerns (all well below conservative cut-offs commonly used in PLS-SEM). Consistent with recommended practice, the low VIF values support the stability of the estimated structural relationships (Hair et al., 2022). Common method bias diagnostics were addressed earlier using Jamovi and are therefore not repeated here.

Measurement Model Assessment (Reflective)

Indicator Reliability (Outer Loadings). As shown in Table 4, the outer loadings for the retained indicators ranged from 0.632 to 0.870. Most indicators met the commonly recommended loading criterion of approximately 0.708, indicating adequate indicator reliability. Three indicators (B6 for SFWB, D3, and D6 for PFS) exhibited loadings below this guideline (λ = 0.650, 0.671, and 0.632, respectively) but were retained, with their adequacy evaluated in conjunction with construct-level reliability and convergent validity evidence (Hair et al., 2022).

Table 4

Construct	Indicator	Outer loading (λ)	Indicator reliability (λ²)
SFWB	B2	0.747	0.558
	B5	0.739	0.546
	B6	0.650	0.423
	B7	0.850	0.722
FB	Ce7	0.809	0.654
	Ce8	0.843	0.711
	Ce9	0.870	0.757

	D1	0.727	0.529
	D2	0.828	0.686
PFS	D3	0.671	0.450
	D6	0.632	0.399
	D7	0.797	0.635
	D8	0.799	0.638

Internal Consistency Reliability

Cronbach's alpha, rho_A, and composite reliability (CR) were used to evaluate the internal consistency reliability. Table 5 depicts the constructs demonstrated satisfactory reliability (α = 0.741–0.842; rho_A = 0.771–0.868; CR = 0.836–0.882), meeting commonly accepted thresholds for reflective measurement models in PLS-SEM (Hair et al., 2022).

Table 5
Internal Consistency Reliability

Construct	Cronbach's alpha (α)	rho_A	Composite reliability (CR)
FB	0.795	0.814	0.879
PFS	0.842	0.868	0.882
SFWB	0.741	0.771	0.836

Convergent Validity

Convergent validity was assessed through the average variance extracted (AVE). Table 6 shows the values of the average variance extracted range from 0.556 to 0.708, which exceed the recommended lowest threshold of 0.50 for reflective constructs. The results indicate that, on average, the constructs explain more than half the variance in the indicators, which. Ensures an acceptable level of convergent validity (Hair et al., 2022).

Table 6
Convergent Validity (Average Variance Extracted)

Construct	AVE
FB	0.708
PFS	0.556
SFWB	0.562

Discriminant Validity

The heterotrait–monotrait ratio (HTMT) with bootstrapped confidence intervals was used to assess the discriminant validity. HTMT values (see Table 7) ranged from 0.132 to 0.431, which does not exceed a commonly applied threshold of 0.85 or 0.90. The corresponding 95% bootstrapped confidence intervals also remained comfortably below these cut-offs, supporting the conclusion that PFS, FB, and SFWB are empirically distinct constructs (Hair et al., 2022).

Table 7
Discriminant Validity (HTMT) And Bootstrapped Confidence Intervals

Construct pair	HTMT (O)	Sample mean (M)	95% CI (2.5%, 97.5%)
PFS – FB	0.431	0.435	[0.322, 0.548]
FB – SFWB	0.132	0.151	[0.100, 0.212]
PFS – SFWB	0.344	0.348	[0.235, 0.460]

Structural Model Assessment

Structural collinearity was examined using inner VIF values. The VIFs were 1.000 for PFS → FB and 1.166 for both PFS → SFWB and FB → SFWB, indicating no multicollinearity issues in the structural model and supporting the stability of subsequent path estimates (Hair et al., 2022).

Path Coefficients and Hypothesis Testing (Bootstrapping Results). Hypotheses were tested using bootstrapping. As reported in Table 8, PFS positively predicted FB (β = 0.377, t = 7.846, p < .001) and PFS positively predicted SFWB (β = 0.328, t = 7.252, p < .001). In contrast, the path from FB to SFWB was not statistically significant (β = −0.096, t = 1.620, p = .105). These results provide support for the hypothesised direct effects from PFS to both FB and SFWB, but not for the direct effect of FB on SFWB (Hair et al., 2022).

Table 8
Hypothesis Testing Results (Direct Effects)

Path	β (O)	M	STDEV	t	p	Decision
PFS $\rightarrow$ FB	0.377	0.384	0.048	7.846	< .001	Supported
PFS $\rightarrow$ SFWB	0.328	0.337	0.045	7.252	< .001	Supported
FB $\rightarrow$ SFWB	-0.096	-0.099	0.059	1.620	.105	Not supported

Figure 2
Structural Model Results (Standardised Path Coefficients And R² Values)
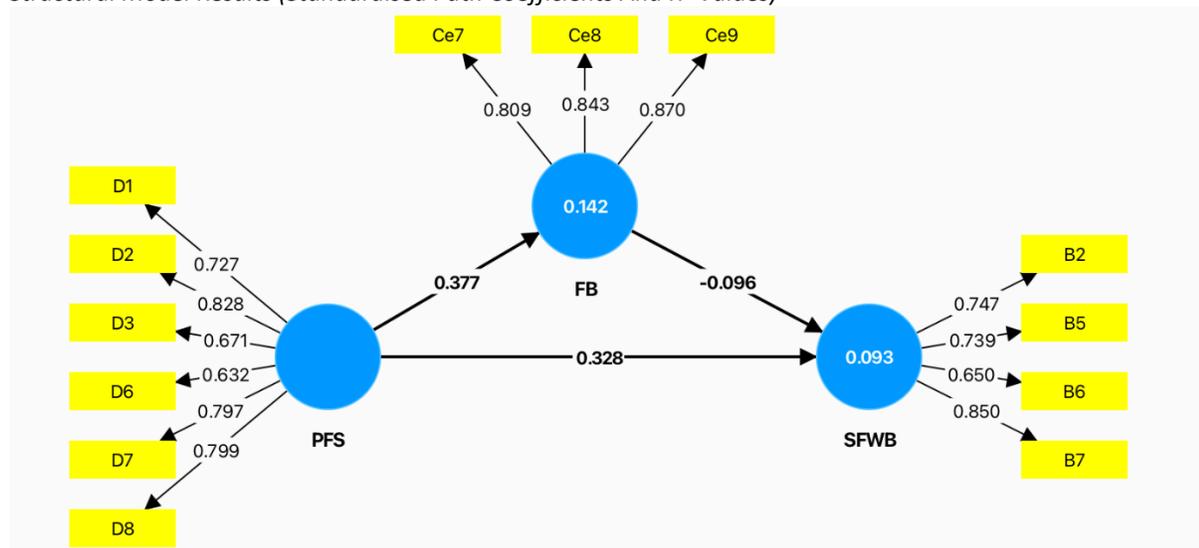
Coefficient of Determination (R²). The coefficient of determination (R²) for the endogenous constructs was used to assess the model's explanatory power. Table 9 shows the model explained 14.2% of the variance in financial behaviour (FB) (R² = 0.142; adjusted R² = 0.140) and 9.3% of the variance in subjective financial well-being (SFWB) (R² = 0.093; adjusted R² = 0.089) (Hair et al., 2022).

Table 9
Coefficient of Determination (R²)

Endogenous construct	R²	Adjusted R²
FB	0.142	0.140
SFWB	0.093	0.089

Effect Size (f²). The effect sizes are determined by the value of f² in Cohen's f² test, which assists in assessing the relative importance of each of the exogenous constructs in explaining the variance of the endogenous constructs. As shown in Table 10, PFS $\rightarrow$ FB exhibited an effect size of f² = 0.166, while PFS $\rightarrow$ SFWB showed f² = 0.102. In contrast, the effect size for FB $\rightarrow$ SFWB was negligible (f² = 0.009). These f² values are interpreted using conventional benchmarks (Cohen, 1988) as applied in PLS-SEM reporting guidelines (Hair et al., 2022).

Table 10

Effect Size (f²)

Path	f²
PFS → FB	0.166
PFS → SFWB	0.102
FB → SFWB	0.009

Predictive Relevance (Q² via Blindfolding). The predictive relevance is determined by Stone-Geisser's Q². This is obtained from blindfolding or cross-validation redundancy analysis. As shown in Table 11, the Q² is 0.096 for FB and 0.047 for SFWB. Since both are greater than 0, the predictive relevance is adequate for the endogenous constructs (Hair et al., 2022).

Table 11

Predictive Relevance (Q²) via Blindfolding (Cross-Validated Redundancy)

Construct	SSO	SSE	Q² (= 1 − SSE/SSO)
FB	1296.000	1172.194	0.096
SFWB	1728.000	1647.052	0.047

Out-of-Sample Predictive Assessment (PLSpredict). Following the assessment of in-sample explanatory power (R²) and predictive relevance (Q² via blindfolding), the model's out-of-sample predictive performance was examined using PLSpredict with 10 folds and 10 repetitions. In line with recommended practice, predictive relevance was assessed through Q²_predict (values > 0 indicate predictive relevance), and predictive power was further judged by comparing PLS-SEM prediction errors (RMSE/MAE) against a linear model (LM) benchmark, where smaller prediction errors indicate superior predictive performance (Hair et al., 2022; Shmueli et al., 2019).

As shown in Table 12, all SFWB indicators (B2, B5, B6, B7) produced positive Q²_predict values, showing a predictive relevance for the endogenous construct at the indicator level. In addition, the PLS-SEM model yielded equal or lower RMSE and MAE than the LM benchmark for three of the four SFWB indicators (B2, B5, B6), whereas B7 showed slightly higher RMSE and MAE under PLS-SEM than LM. Overall, these results indicate positive but limited out-of-sample predictive performance for subjective financial well-being, as evidenced by positive Q²_predict values for all SFWB indicators and lower prediction errors than the LM benchmark for three of four indicators.

Table 12

PLSpredict Results for SFWB Indicators (Q²_predict; PLS-SEM vs. LM Benchmark Errors)

Indicator (SFWB)	Q²_predict	PLS-SEM RMSE	PLS-SEM MAE	LM RMSE	LM MAE
B2	0.042	0.829	0.667	0.837	0.667
B5	0.020	0.807	0.655	0.814	0.661
B6	0.028	0.805	0.545	0.812	0.557
B7	0.081	0.768	0.580	0.759	0.572

Note. Positive Q²_predict values indicate predictive relevance. Lower RMSE/MAE values reflect better predictive accuracy

Mediation Analysis

Indirect Effect Significance (Bootstrapping). The mediating effect of financial behaviour (FB) on the relationship between parental financial socialisation (PFS) and subjective financial well-being (SFWB) was assessed using bootstrapped specific indirect effects with bias-corrected and accelerated (BCa) confidence intervals. As presented in Table 13, the indirect effect of PFS on SFWB via FB was not statistically significant (β = −0.036, t = 1.587, p = .113), and the 95% BCa confidence interval included zero (LL = −0.083, UL = 0.008), indicating that FB did not mediate the

relationship between PFS and SFWB in the present model (Hair et al., 2022).

Table 13

Mediation Analysis (Direct, Indirect, and Total Effects with BCa Confidence Intervals)

Effect	Path	β (O)	M	STDEV	t	p	95% BCa CI [LL, UL]	Decision
Indirect (specific)	PFS → FB → SFWB	−0.036	−0.038	0.023	1.587	.113	[−0.083, 0.008]	Not significant
Direct	PFS → SFWB	0.328	0.337	0.045	7.252	<.001	[0.248, 0.424]	Significant
Total	PFS → SFWB	0.292	0.300	0.046	6.349	<.001	[0.206, 0.385]	Significant

Note. BCa = bias-corrected and accelerated confidence interval. Indirect effects are considered significant when the 95% BCa confidence interval does not include zero.

Type of Mediation. Given that the specific indirect effect was non-significant (95% BCa CI crosses zero), mediation was not supported. In contrast, the direct effect of PFS on SFWB remained positive and statistically significant (β = 0.328, t = 7.252, p < .001), and the total effect was also significant (β = 0.292, t = 6.349, p < .001). Collectively, these results indicate that PFS influences SFWB primarily through a direct pathway rather than through FB under the current model specification (Hair et al., 2022).

Model Summary

Overall, the structural model provided a coherent pattern of direct effects and modest explanatory and predictive capability. Parental financial socialisation (PFS) positively predicted financial behaviour (FB) (β = 0.377, p < .001) and subjective financial well-being (SFWB) (β = 0.328, p < .001), whereas FB did not significantly predict SFWB (β = −0.096, p = .105). The model explained 14.2% of the variance in FB (R^2 = 0.142) and 9.3% in SFWB (R^2 = 0.093). Predictive relevance was supported for both endogenous constructs based on cross-validated redundancy (FB Q^2 = 0.096; SFWB Q^2 = 0.047). Effect size estimates indicated that PFS had a small-to-medium effect on FB (f^2 = 0.166) and a small effect on SFWB (f^2 = 0.102), while the effect of FB on SFWB was negligible (f^2 = 0.009). Finally, the indirect effect of PFS on SFWB via FB was not supported because the bootstrapped indirect effect was non-significant and its 95% BCa confidence interval included zero (β = −0.036, p = .113, BCa CI [−0.083, 0.008]). Collectively, the findings suggest that PFS relates to SFWB primarily through a direct pathway under the present model specification (Hair et al., 2022). The final model estimates are summarised in Figure 2.

Overall, these findings suggest that financial behaviour alone is insufficient unless supported by institutional structures that enable students to apply such behaviours effectively. From a management perspective, this highlights the importance of institutional interventions rather than relying solely on individual capability.

DISCUSSION

Key Findings

This research examined whether parental financial socialisation (PFS) is associated with students' subjective financial well-being (SFWB) directly and indirectly through financial behaviour (FB) in a Malaysian student sample predominantly from B40 households, using a PLS-SEM approach (Hair et al., 2022). The findings indicate that PFS significantly and positively predicted FB (β = 0.377, p < .001) and PFS significantly and positively predicted SFWB (β = 0.328, p < .001). In contrast, FB did not significantly predict SFWB (β = −0.096, p = .105), and the indirect effect of PFS on SFWB via FB was not supported because the bootstrapped indirect effect was non-significant and its 95% bias-corrected and accelerated (BCa) confidence interval included zero (β = −0.036, p = .113, BCa CI [−0.083, 0.008]) (Hair et al., 2022). In terms of model performance, explanatory power was modest (R^2 = 0.142 for FB; R^2 = 0.093 for SFWB), while predictive relevance was present but small based on blindfolding (Q^2 = 0.096 for FB; Q^2 = 0.047 for

SFWB) (Hair et al., 2022). Out-of-sample assessment via PLSpredict further suggested positive but limited predictive performance for SFWB, reflected by positive Q^2_predict values across SFWB indicators and lower prediction errors than the linear model benchmark for most indicators (Shmueli et al., 2019). Collectively, the results suggest that PFS relates to SFWB primarily through a direct pathway in this context rather than through the behavioural pathway operationalised in the current model (Hair et al., 2022).

Hypothesis Interpretation

5.2.1 PFS → FB. The positive association between parental financial socialisation (PFS) and students' financial behaviour (FB) indicates that parental financial management practices meaningfully shape how students manage money in emerging adulthood. In practical terms, parents who routinely model and communicate basic financial management such as planning, budgeting discipline, spending control, and prioritisation appear to transmit financial management norms and routines that students later enact as personal financial management behaviours. This pattern aligns with longitudinal evidence that parental financial socialisation is reflected in parents' own day-to-day financial management behaviours and financial distress, which predicts emerging adults' subsequent financial satisfaction and distress, although direct links to emerging adults' financial management behaviours may be weaker or context-dependent (Allsop et al., 2021). It also aligns with broader empirical work showing that early household financial management socialisation relates to later financial decision routines, even across distinct contexts (Kumar et al., 2025).

Mechanistically, the result is best interpreted as management learning through repeated exposure rather than a one-off transfer of financial knowledge. When parents make financial management visible, such as discussing trade-offs, demonstrating restraint, and normalising monitoring behaviours, students learn how to manage finances. Research on child financial socialisation suggests that parental financial management modelling may function as a protective resource, shaping later money-management habits and how individuals navigate money-related conflict in adulthood (Gibby et al., 2021). In a predominantly B40 student context, this matters because financial management is less about optimisation and more about control under constraint. Consistent parental guidance on how to manage scarce resources plausibly strengthens students' budgeting resilience and spending.

In addition, from a model-performance standpoint, the effect is not trivial: the PFS → FB relationship is statistically strong, with a small-to-medium effect size (f^2 = 0.166), Cohen (1988), and meaningful explained variance for FB (R^2 = 0.142). In PLS-SEM terms, this supports the interpretation that parental financial management practices provide a substantive behavioural anchor for students' personal financial management routines, even when other pathways in the model are weaker (Hair et al., 2022).

5.2.2 PFS → SFWB. Parental financial socialisation was supported as a meaningful antecedent of students' subjective financial well-being in this study. Interpreted through Family Financial Socialisation Theory, parental financial management practices do more than shape observable money behaviours; they cultivate how students internalise financial management standards, control, and coping meanings through modelling, discussion, and guided practice (Gudmunson & Danes, 2011; LeBaron & Kelley, 2021; LeBaron-Black et al., 2021). These internalised financial management frames plausibly inform how emerging adults evaluate their financial position, including perceptions of strain and future security, which are central to subjective financial well-being as an evaluative outcome (Netemeyer et al., 2018). This pattern is especially plausible in financially constrained environments where limited buffers can weaken the conversion of "doing the right things" into feeling financially secure; under such constraints, family-based financial management socialisation may operate as a stabilising resource that shapes appraisal and perceived control even when resources remain tight (Allsop et al., 2021; Buckland, 2010; Salignac et al., 2020).

5.2.3 FB → SFWB. The analysis indicates that students' financial behaviour, operationalised as personal financial management practices, did not significantly predict subjective financial well-being. This suggests that, within a financially constrained student context, executing prudent routines may not translate into improved appraisals of

financial strain and future security, which are central components of subjective financial well-being (Brüggen et al., 2017; Netemeyer et al., 2018).

Several competing explanations may account for this non-significant association. The most plausible is a constraint mechanism: when students have limited income, minimal buffers, and face persistent cost pressures, sound personal financial management may help maintain stability or prevent deterioration but may not generate noticeable gains in perceived security because the scope for upward movement is structurally restricted (Buckland, 2010; Brüggen et al., 2017; Salignac et al., 2020). In such conditions, behaviour can be "necessary" but not "sufficient" for improved subjective evaluations.

A second possibility concerns construct–indicator alignment. The financial behaviour indicators may capture general money management habits, yet may be less sensitive to behaviours that directly increase financial slack under constraint (e.g., building emergency buffers, reducing high-cost debt, or smoothing volatility). As a result, students may report responsible practices while still lacking the financial margin that most strongly shapes future security perceptions (Brüggen et al., 2017; Netemeyer et al., 2018). Besides, it may be explained through temporal lag. Financial management behaviours often influence well-being through cumulative changes in resources and stability. Cross-sectional data may therefore under-detect delayed effects, particularly among emerging adults whose finances can fluctuate during study-to-work transitions (Allsop et al., 2021; Brüggen et al., 2017).

Overall, the non-significant FB → SFWB path should be interpreted as context-contingent, not as evidence that student financial management is unimportant. Rather, it indicates that in this setting, responsible personal financial management may not be sufficient to shift subjective well-being without adequate resources and stabilising supports (Brüggen et al., 2017; Netemeyer et al., 2018).

Mediation Interpretation
The mediation analysis indicates that financial behaviour, conceptualised as students' personal financial management, did not transmit the influence of parental financial socialisation to subjective financial well-being. The indirect effect was not supported, and the confidence interval crossed zero, indicating that the pathway from parental financial socialisation to students' perceived financial well-being did not operate through the specific set of personal financial management practices measured in this study (Hair et al., 2022).

This pattern suggests that parental financial socialisation may shape subjective financial well-being through mechanisms other than behavioural execution. Parental socialisation can embed money management meanings, perceived control, expectations, and coping orientations that influence how students evaluate their financial situation, even when their day-to-day financial management behaviours do not generate a corresponding improvement in perceived well-being under constrained conditions (Gudmunson & Danes, 2011; LeBaron & Kelley, 2021; Netemeyer et al., 2018). In this sense, parental financial management may operate as a developmental influence on financial appraisal and perceived manageability, whereas students' personal financial management behaviours may be constrained in their capacity to produce perceived security when financial resources remain limited.

Future work can test alternative pathways that better capture how parental financial management translates into student financial management outcomes and perceived well-being, including financial self-efficacy, financial stress management, internal locus of control, and financial knowledge application. These mechanisms are conceptually aligned with family financial socialisation theory and may provide a clearer behavioural and psychological bridge between parental financial management and subjective financial well-being in student populations (Gudmunson & Danes, 2011; LeBaron & Kelley, 2021).

Model Performance Interpretation
The model exhibits modest explanatory power, which is typical when modelling subjective well-being evaluations

that are influenced by multiple determinants beyond individual financial practices. The coefficients of determination indicate that parental financial socialisation explains a limited share of variance in students' personal financial management, while parental financial socialisation and financial behaviour together explain a smaller share of variance in subjective financial well-being. These levels of explained variance imply that, although parental socialisation is a statistically reliable antecedent in this sample, most variation in subjective financial well-being remains unaccounted for, consistent with prior work emphasising the roles of resource constraints, exposure to financial shocks, perceived stability, and appraisal-based processes in shaping perceived financial well-being (Brüggen et al., 2017; Netemeyer et al., 2018).

Predictive assessment aligns with this interpretation. Blindfolding indicates positive predictive relevance, but the magnitude is small, suggesting only incremental improvement over a naïve benchmark. PLSpredict further indicates heterogeneous indicator-level predictability: prediction errors are lower than the linear benchmark for several subjective financial well-being indicators, but not uniformly across all indicators. Taken together, the results support a bounded conclusion: the model captures a meaningful socialisation pathway, yet its predictive precision for subjective financial well-being is limited, indicating the need to incorporate additional mechanisms and contextual conditions to improve explanatory and predictive coverage, particularly in financially constrained student settings (Hair et al., 2022; Shmueli et al., 2019).

The results underscore the critical role of higher education leadership in shaping environments where financial behaviour can translate into well-being. Universities should view student financial well-being as a managed outcome, supported through leadership commitment, structured programmes, and cross-unit collaboration. These findings call for educational leaders to move beyond awareness-based initiatives toward systemic financial support strategies embedded within institutional governance.

Theoretical Contributions

The findings explain the scope of Family Financial Socialisation Theory (FFST) by showing that parental financial socialisation operates as more than an upstream driver of students' personal financial management behaviour. In this model, parental financial socialisation exerted a direct effect on students' subjective financial well-being even when students' financial behaviour did not significantly predict subjective financial well-being. This pattern supports the FFST proposition that family-level financial management socialisation shapes downstream financial functioning through multiple pathways, including internalised money-management norms, financially oriented communication, and routinised parental guidance, rather than only through observable behavioural execution (Gudmunson & Danes, 2011; LeBaron et al., 2019). Conceptually, the present results imply that parental financial management may calibrate how students appraise financial control, adequacy, and security, an evaluative component of subjective financial well-being (Netemeyer et al., 2018), independent of whether students' current financial practices are sufficient to improve their lived financial condition.

The results also extend ecological life-course framing by empirically demonstrating a context in which personal financial management behaviour does not translate into subjective financial well-being, despite being socially shaped and theoretically relevant. The ecological life-course perspective argues that financial well-being develops through continuous interaction between individual capabilities and layered environmental systems, including family, institutions, and structural conditions such as the cost of living and access to financial products (Salignac et al., 2020). The non-significant path from financial behaviour to subjective financial well-being is therefore theoretically meaningful rather than atypical. It reflects the premise that, in financially constrained environments, prudent day-to-day student financial management may be necessary but not sufficient for feeling financially secure or in control, because structural pressures and limited buffers can dominate the appraisal process (Brüggen et al., 2017; Salignac et al., 2020). Taken together, FFST explains how parental financial management socialises students into particular financial-management orientations, while the ecological life-course view explains why those orientations and behaviours may not convert into subjective financial well-being when environmental constraints reduce the returns to personal financial management efforts (Gudmunson & Danes, 2011; Salignac et al., 2020).

Practical Implications

The findings imply that improving student financial well-being requires coordinated support for parental financial management, student financial management, and the wider enabling environment. For families, the significant role of parental financial socialisation indicates that parents continue to influence students' subjective financial well-being through financial management modelling, communication, and guided practice, not merely through encouraging isolated financial behaviours (Gudmunson & Danes, 2011; LeBaron et al., 2019). For universities, the non-significant link between students' financial behaviour and subjective financial well-being suggests that stand-alone personal financial management or budgeting programmes may have a limited impact on well-being appraisals.

In addition, student support should therefore combine financial management skill building with services that directly address financial strain and insecurity, such as debt counselling, emergency assistance, and targeted advising, which aligns with the view that subjective financial well-being reflects both financial functioning and perceived security (Brüggen et al., 2017; Netemeyer et al., 2018). At the policy and financial institution level, the results indicate that prudent financial management may not translate into well-being without supportive conditions. Strengthening financial inclusion through safe, affordable products, fee reductions, consumer protection, and accessible savings mechanisms can increase the likelihood that responsible student financial management translates into improved perceived financial security (Salignac et al., 2020). Overall, the practical message is that student financial well-being interventions should move beyond teaching budgeting alone and address family socialisation, institutional supports, and structural constraints simultaneously.

Taking all into consideration for higher education managers, the findings suggest the need to integrate financial well-being into student support policies and leadership agendas. For policy-makers, universities should establish clear accountability structures for student financial well-being within student affairs and academic leadership units.

Limitations

This study evokes several limitations. First, this study used a cross-sectional, self-report design, which can limit the causal inference because temporal precedence between parental financial management, students' personal financial management, and perceived financial well-being cannot be established, even though longitudinal designs would require theoretically appropriate time lags to meaningfully strengthen causal claims (Spector, 2019). This matters particularly for the non-significant relationship between students' financial behaviour and subjective financial well-being, because the ecological life-course (Salignac et al., 2020) view financial well-being as temporally situated and shaped by life-stage transitions and shocks, meaning that the "returns" to personal financial management may unfold slowly or be interrupted by structural pressures.

Second, although this research addressed common method concerns earlier, shared method variance remains a general risk in single-source financial management studies, particularly when both predictors and outcomes are perceptual rather than objectively verified indicators (Spector et al., 2019). In addition, the sample is specific to Malaysian students and is predominantly drawn from B40 households; therefore, the findings should be interpreted as reflecting a financially constrained environment, and generalisation to higher-income students or non-student populations should be made cautiously, as ecological perspectives emphasise that broader structural conditions such as the living cost pressures and access to financial products shape how financial management experiences translate into perceived financial security and control (Salignac et al., 2020).

Finally, the model is intentionally parsimonious, focusing on one behavioural pathway, which increases clarity but also implies omitted mechanisms. The pattern where parental financial socialisation directly predicts subjective financial well-being while students' financial behaviour does not suggests that additional financial management channels are likely operating, such as money management self-efficacy, perceived control, financial stress appraisal, or institutional support, consistent with prior theory that family financial socialisation shapes outcomes through multiple processes beyond observable behaviour (Gudmunson & Danes, 2011). This interpretation is also aligned

with the ecological life-course perspective, which conceptualises financial well-being as developing through interactions between individuals and their environments, including household and wider structural conditions such as cost of living, access to financial products and services, and institutional and policy contexts (Salignac et al., 2020).

Future Research Directions

Future studies should adopt longitudinal or time-lag designs to strengthen causal inference and examine whether parental financial management socialisation precedes changes in students' financial management behaviour and subsequent subjective financial well-being, recognising that temporal ordering cannot be established in cross-sectional models (Spector, 2019). To address the parsimonious nature of the present model, future research should test additional financial management mechanisms implied by Family Financial Socialisation Theory, such as money management self-efficacy, perceived control, and financial stress appraisal, which may transmit parental influences to well-being beyond observable behaviour (Gudmunson & Danes, 2011).

In line with the ecological life-course perspective, subsequent work should also examine contextual boundary conditions, including income volatility, debt exposure, financial shocks, and access to financial products and support, to clarify when personal financial management behaviour translates into subjective financial well-being (Salignac et al., 2020). Comparative or multi-group designs across income levels and student versus non-student populations, as well as mixed-method approaches, would further clarify how structural conditions shape the effectiveness of financial management efforts in promoting perceived financial security and control.

Conclusion

This study contributes to educational management literature by demonstrating that student financial well-being is not solely an individual outcome but a product of leadership, institutional support, and management practices within higher education. At the micro level, this study contributes to understanding student financial well-being by showing that parental financial socialisation remains a salient influence on subjective financial well-being. In the meantime, students' personal financial management behaviour does not independently translate into improved well-being in this context. Interpreted through Family Financial Socialisation Theory, the findings suggest that parental financial management shapes enduring money-related meanings and evaluative frames that inform how students appraise financial security and control, beyond observable behaviours (Gudmunson & Danes, 2011). Viewed through an ecological life-course perspective, the results indicate that financial well-being is co-produced by individual actions and environmental conditions, such that structural constraints can limit the returns of prudent financial management on perceived well-being (Salignac et al., 2020). Taken together, the study underscores the need to move beyond behaviour-only explanations of financial well-being and to recognise the joint roles of family socialisation and contextual conditions in shaping students' financial management experiences and outcomes.

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