

## Debt Stress, Coping Strategies, and Financial Well-being among Middle-Income Households: Evidence from India

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### Abstract:

This study examines the relationship between debt stress, coping strategies, financial literacy, and financial well-being among urban middle-income households in India. The rapid expansion of consumer credit and digital lending has increased household indebtedness, raising concerns about financial vulnerability. Using primary survey data from 400 households in Mumbai, Pune, and Nashik, the study employs Structural Equation Modelling (SEM) to analyse the relationships between debt burden, debt stress, coping strategies, and financial well-being. The findings show that higher debt burden significantly increases debt stress among households. Debt stress influences both adaptive and maladaptive coping behaviours, reflecting behavioural responses to financial pressure. Maladaptive coping strategies significantly reduce financial well-being, whereas adaptive coping strategies do not have a significant direct effect. Mediation analysis indicates that coping strategies fully mediate the relationship between debt stress and financial well-being, while financial literacy significantly moderates this relationship. These results suggest that financially literate households are better able to manage financial stress. The study contributes to the household finance literature by integrating debt stress, coping behaviour, and financial literacy within a unified analytical framework and highlights the importance of financial literacy and responsible borrowing practices in strengthening household financial resilience in emerging economies

**Keywords:** Debt Stress, Financial Vulnerability, Coping Strategies, Financial Literacy, Financial Well-being & Household Finance

### 1. Introduction

Household indebtedness has increased significantly across both advanced and emerging economies, raising concerns about financial stability and household financial well-being. According to the Bank for International Settlements (BIS, 2024), global household debt reached approximately USD 59 trillion in 2023, representing nearly 65% of global GDP. Advanced economies such as the United States and Australia report household debt-to-income ratios exceeding 100%, reflecting high household leverage. In emerging economies, borrowing has accelerated in the post-pandemic period due to accommodative monetary policies, financial inclusion initiatives, and the expansion of digital lending platforms. The International Monetary Fund (IMF, 2025) estimates that household debt in emerging markets increased by nearly 15% between 2019 and 2024. While expanded credit access supports consumption and economic recovery, excessive indebtedness also increases financial stress and vulnerability to economic shocks (OECD, 2023).

These risks are particularly pronounced in emerging economies due to structural vulnerabilities such as income volatility and limited social protection systems. In India, household debt reached approximately 40% of GDP in 2024, driven largely by personal loans, credit card borrowing, and unsecured retail credit (Reserve Bank of India, 2025). Evidence from the World Bank (2024) suggests that rising household debt increases financial vulnerability and default risk during periods of economic uncertainty.

Within this context, middle-income households represent an important yet relatively understudied segment. Characterised by stable employment and moderate income levels, these households increasingly rely on credit to finance housing, education, healthcare, and consumption. In India, households earning between ₹5 lakh and ₹15 lakh annually have experienced growing credit dependence, resulting in higher debt servicing obligations. Surveys indicate that nearly 30–35% of middle-income households experience debt-related financial stress, with debt-service ratios reaching approximately 25–30% of household income (NFHS-5, 2021; CRISIL, 2025).

India has also emerged as one of the fastest-growing consumer credit markets among emerging economies. The expansion of fintech-based lending and increased credit card usage has significantly transformed household borrowing behaviour. Although improved credit access promotes financial inclusion, it may also increase financial vulnerability when borrowing is not supported by adequate financial capability (Reserve Bank of India, 2025). Previous studies have examined household indebtedness, financial fragility, and the role of financial literacy in financial decision-making (Lusardi & Mitchell, 2014). Research has also explored behavioural responses to financial stress, including coping strategies such as expenditure reduction and borrowing substitution (Gathergood, 2012). However, most existing studies focus on advanced economies and rely primarily on secondary data, providing limited evidence on the integrated relationship between debt stress, coping strategies, and financial well-being in emerging economies. To address this gap, this study examines how debt burden and debt stress influence financial well-being among middle-income households in India. It further investigates the mediating role of coping strategies and the moderating role of financial literacy using primary survey data and structural equation modelling. This study contributes to the literature in three ways. First, it develops an integrated framework linking debt burden, debt stress, coping strategies, financial literacy, and financial well-being. Second, it empirically examines the mediating role of coping strategies in the relationship between debt stress and financial well-being. Third, it evaluates the moderating influence of financial literacy in mitigating the adverse effects of financial stress. The remainder of the paper is organised as follows. Section 2 reviews the literature and develops the hypotheses. Section 3 outlines the research methodology. Section 4 presents the empirical results, and Section 5 discusses the findings and conclusions

### 2. Literature Review

#### 2.1 Household Debt and Financial Stress

Household debt plays a significant role in modern financial systems and household financial well-being. While access to credit allows households to smooth consumption and invest in human capital, excessive borrowing can increase financial vulnerability and stress (Lusardi & Tufano, 2015). Financial stress typically occurs when households struggle to meet repayment obligations during periods of income instability or economic shocks. Empirical studies show that highly indebted households experience greater financial anxiety and psychological stress (Gathergood, 2012; Sweet et al., 2013). Over-indebtedness has also been linked to limited financial literacy and behavioural biases (Lusardi & Mitchell, 2014). The Life-Cycle Hypothesis suggests that households borrow to smooth consumption over time, although excessive borrowing may lead to financial fragility (Modigliani & Brumberg, 1954). Similarly, financial fragility theory highlights that households with limited liquidity buffers are more vulnerable to income shocks when debt obligations are high (Minsky, 1986).

#### 2.2 Financial Vulnerability and Coping Behaviour

Financial vulnerability refers to the susceptibility of households to financial shocks arising from unstable income, limited savings, and high debt obligations (Lusardi et al., 2011). Households with high debt-service ratios and low savings are more exposed to financial distress (OECD, 2023). In emerging economies, factors such as income instability, informal employment, and limited social protection systems further increase financial vulnerability (World Bank, 2024). Households adopt coping strategies to manage financial stress. According to the stress-coping framework, individuals respond to financial pressure through adaptive or maladaptive behaviours (Lazarus & Folkman, 1984). Adaptive strategies such as budgeting and expenditure control may strengthen financial resilience, whereas maladaptive behaviours such as additional borrowing or financial avoidance may worsen financial vulnerability (Netemeyer et al., 2018; Gathergood, 2012).

### 2.3 Financial Literacy and Household Financial Well-being

Financial literacy plays a crucial role in financial decision-making and household financial well-being. It refers to the ability to understand financial concepts and manage financial resources effectively (OECD, 2020). Individuals with higher financial literacy are more likely to engage in responsible financial planning, avoid excessive debt, and maintain financial stability (Lusardi & Mitchell, 2014; Van Rooij et al., 2011). Financial literacy also improves households' ability to cope with financial shocks and manage debt-related stress (Fernandes et al., 2014; Xiao & Porto, 2017).

Although household debt has been widely studied in advanced economies, empirical evidence from emerging markets remains limited. In India, the rapid expansion of retail lending, particularly unsecured personal loans and credit card borrowing, has increased household leverage and financial risk exposure (Reserve Bank of India, 2025). However, most existing studies rely on secondary data and provide limited insights into household-level behavioural responses to debt stress.

### 2.6 Research Gap and Contribution

Despite the growing literature on household indebtedness and financial vulnerability, several gaps remain. Most studies examining debt stress and financial behaviour focus on advanced economies, limiting their applicability to emerging markets. Moreover, previous research has typically examined debt stress, financial literacy, and financial well-being separately rather than within an integrated framework.

Limited empirical evidence also exists on the mediating role of coping strategies and the moderating role of financial literacy in influencing financial well-being. In addition, relatively few studies employ structural equation modelling with primary household-level data to analyse financial stress, coping behaviour, and financial well-being simultaneously in emerging economies.

To address these gaps, this study develops an integrated framework linking debt stress, coping strategies, financial literacy, and financial well-being among middle-income households in India. Using primary survey data and structural equation modelling, the study provides new evidence on household financial vulnerability and behavioural responses to debt stress in an emerging economy context.

## 3. Theoretical Framework and Hypothesis Development

### 3.1 Theoretical Framework

This study integrates the **Life-Cycle Hypothesis, Financial Fragility Theory, and Stress-Coping Theory** to explain the relationship between household debt stress, coping strategies, and financial well-being. The Life-Cycle Hypothesis suggests that households borrow to smooth consumption over time; however, excessive borrowing may increase financial vulnerability when repayment obligations exceed financial capacity (Modigliani & Brumberg, 1954). Financial Fragility Theory further indicates that highly leveraged households are more vulnerable to economic shocks due to limited financial flexibility (Minsky, 1986). Stress-Coping Theory explains how individuals respond to financial stress through behavioural adjustments (Lazarus & Folkman, 1984). Households may adopt **adaptive strategies**, such as budgeting and financial planning, or **maladaptive behaviours**, including additional borrowing and financial avoidance. These coping behaviours influence financial well-being outcomes. Financial literacy may further enhance financial decision-making and reduce the negative effects of financial stress.

Based on these theoretical perspectives, this study proposes that **debt burden increases debt stress**, which subsequently affects **coping strategies and financial well-being**. Coping strategies are expected to **mediate** the relationship between debt stress and financial well-being, while **financial literacy moderates** this relationship.

### 3.2 Research Objectives

The primary objective of this study is to examine the relationship between debt stress, coping strategies, financial literacy, and financial well-being among urban middle-income households. Specifically, the study aims to:

- O1. To measure the level of debt stress among urban middle-income households.
- O2. To examine the impact of debt burden on perceived debt stress
- O3. To analyse the effect of debt stress on adaptive and maladaptive coping strategies
- O4. To investigate the impact of coping strategies on household financial well-being
- O5. To examine the mediating role of coping strategies in the relationship between debt stress and financial well-being
- O6. To examine the moderating effect of financial literacy on the relationship between debt stress and financial well-being
- O7. To provide policy implications for improving household financial resilience and financial literacy.

### 3.3 Debt Burden and Debt Stress

Debt burden represents the extent of household financial obligations relative to income. High debt servicing commitments reduce financial flexibility and increase financial stress (Lusardi & Tufano, 2015). Empirical evidence indicates that excessive debt obligations significantly increase financial anxiety and distress among households (Gathergood, 2012). Accordingly:

**H1:** Debt burden has a positive and significant effect on debt stress.

### 3.3 Debt Burden and Debt Stress

Debt burden reflects the level of household financial obligations relative to income. High debt servicing commitments reduce financial flexibility and increase financial stress (Lusardi & Tufano, 2015). Empirical evidence shows that excessive debt obligations significantly increase financial anxiety and distress among households (Gathergood, 2012).

**H1:** Debt burden has a positive and significant effect on debt stress.

### 3.4 Debt Stress and Coping Strategies

Financial stress influences behavioural responses as households attempt to manage financial pressure. According to Stress-Coping Theory, individuals adopt coping strategies to mitigate stress. Higher financial stress may increase maladaptive coping behaviours while reducing the ability to adopt adaptive financial management strategies.

**H2a:** Debt stress positively influences maladaptive coping strategies.

**H2b:** Debt stress negatively influences adaptive coping strategies.

### 3.5 Coping Strategies and Financial Well-being

Financial well-being reflects the ability of households to manage financial obligations and maintain financial stability. Adaptive coping strategies can improve financial control and resilience, whereas maladaptive strategies may increase financial vulnerability (Netemeyer et al., 2018).

**H3a:** Adaptive coping strategies positively influence financial well-being.

**H3b:** Maladaptive coping strategies negatively influence financial well-being.

**H4:** Debt stress has a significant negative effect on financial well-being.

### 3.6 Mediating Role of Coping Strategies

Coping strategies represent behavioural mechanisms through which financial stress influences financial outcomes.

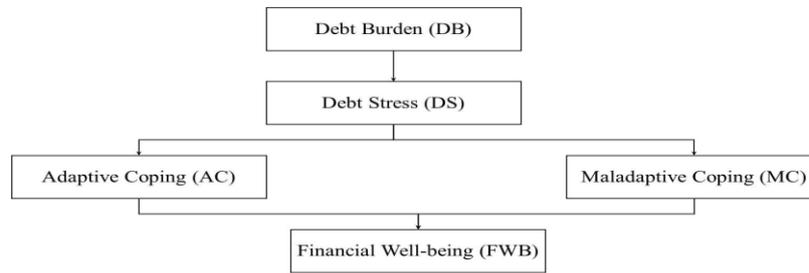
**H5:** Coping strategies mediate the relationship between debt stress and financial well-being.

### 3.7 Moderating Role of Financial Literacy

Financial literacy improves financial decision-making and reduces financial vulnerability (Lusardi & Mitchell, 2014).

**H6:** Financial literacy moderates the relationship between debt stress and financial well-being such that the negative effect of debt stress is weaker among financially literate households.

### 4. Conceptual Model



**Moderating Variable:** Financial Literacy (FL) (Moderates DS → AC, DS → MC, and DS → FWB)

**Control Variables:** Age, Income, Education, Dependents, Employment Type

**Figure 1:** Conceptual Model of Debt Stress, Coping Strategies, Financial Literacy, and Financial Well-being

Figure 1 illustrates the conceptual framework examining the relationships among debt burden, debt stress, coping strategies, financial literacy, and financial well-being. Debt burden is expected to increase debt stress due to higher repayment obligations. Debt stress may influence financial well-being both directly and indirectly through coping strategies, indicating a mediating mechanism. Coping strategies are classified as adaptive and maladaptive, where adaptive behaviours are expected to improve financial well-being and maladaptive behaviours may reduce financial stability. Financial literacy is proposed as a moderating variable that weakens the negative effect of debt stress on financial well-being.

### 4. Research Methodology

#### 4.1 Research Design and Data Collection

This study adopts a quantitative research design using primary survey data to examine the relationship between debt burden, debt stress, coping strategies, financial literacy, and financial well-being among middle-income households. The target population consists of households with annual income between ₹5 lakh and ₹15 lakh.

Primary data were collected using a structured questionnaire administered in three urban centres in Maharashtra—Mumbai, Pune, and Nashik—selected for their economic diversity and varying credit usage patterns. A total of 520 questionnaires were distributed through online and offline methods, yielding 417 responses. After excluding incomplete responses, 400 valid questionnaires were retained, resulting in a response rate of 76.9%. This sample size satisfies recommended requirements for Structural Equation Modelling (SEM), which typically requires at least 300 observations for stable parameter estimation.

A stratified sampling approach was employed to ensure representation across occupational groups, including salaried employees, self-employed individuals, business owners, and contractual workers. Respondents within each group were selected using purposive convenience sampling due to the absence of a comprehensive sampling frame of indebted households (Hair et al., 2019).

#### 4.2 Measurement of Variables

A structured questionnaire consisting of validated measurement items adapted from established household finance literature was used. All constructs were measured on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree).

- **Debt Burden (DB):** Measured using indicators such as EMI-to-income ratio, number of outstanding loans, and credit utilisation level.
- **Debt Stress (DS):** Measured using indicators reflecting financial anxiety, repayment pressure, and perceived difficulty in managing debt obligations.
- **Coping Strategies (CS):** Measured as behavioural responses to financial stress, including adaptive behaviours (budget adjustments and expenditure reduction) and maladaptive behaviours (additional borrowing and delayed payments).
- **Financial Well-being (FWB):** Measured using indicators capturing financial stability, including the ability to meet financial obligations and manage financial emergencies.
- **Financial Literacy (FL):** Measured using indicators reflecting financial knowledge, financial planning ability, and understanding of financial products.

Measurement items were adapted from established scales including Gathergood (2012), Sweet et al. (2013), Netemeyer et al. (2018), and Lusardi and Mitchell (2014).

#### 4.3 Reliability and Validity

Reliability and validity were assessed prior to structural model estimation. Internal consistency reliability was evaluated using Cronbach's alpha and Composite Reliability (CR) with values above 0.70 indicating acceptable reliability. Convergent validity was assessed using Average Variance Extracted (AVE) with values above 0.50, while discriminant validity was evaluated using the Heterotrait-Monotrait (HTMT) ratio. Confirmatory Factor Analysis (CFA) was conducted to validate the measurement model.

**4.4 Structural Equation Modelling:** Structural Equation Modelling (SEM) was employed to examine the relationships among the constructs while accounting for measurement error.

- **Debt Stress Equation:**  $DS_i = \beta_1 DB_i + \varepsilon_1$
- **Coping Strategy Equation:**  $CS_i = \beta_2 DS_i + \varepsilon_2$
- **Financial Well-being Equation:**  $FWB_i = \beta_3 CS_i + \beta_4 DS_i + \varepsilon_3$

Where DB represents Debt Burden, DS represents Debt Stress, CS represents Coping Strategies, and FWB represents Financial Well-being. Model fit was evaluated using standard indices including Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR). Acceptable model fit is indicated by CFI and TLI > 0.90 and RMSEA and SRMR < 0.08.

**4.5 Mediation Analysis:** The mediating role of coping strategies in the relationship between debt stress and financial well-being was examined using bootstrapping with 5,000 resamples. Mediation is confirmed when the indirect effect is statistically significant.

**4.6 Moderation Analysis:** The moderating effect of financial literacy was tested using an interaction model:  $FWB_i = \beta_0 + \beta_1 DS_i + \beta_2 FL_i + \beta_3 (DS_i \times FL_i) + \varepsilon_i$

A significant interaction coefficient indicates that financial literacy moderates the relationship between debt stress and financial well-being.

**4.7 Control Variables:** Control variables including age, education level, income level, employment type, and number of dependents were included to account for demographic differences influencing household financial behaviour.

**4.8 Statistical Software:** Data analysis was conducted using SPSS for descriptive statistics and reliability testing and AMOS for Confirmatory Factor Analysis and Structural Equation Modelling.

**5. Results and Analysis**

**5.1 Sample Profile**

This section presents the demographic characteristics of the respondents from the three urban centres in Maharashtra—Mumbai, Pune, and Nashik.

**Table 1: Demographic Profile of Respondents**

Variable	Category	Frequency	Percentage (%)
City of Residence	Mumbai	172	43.0
	Pune	160	40.0
	Nashik	68	17.0
	Total	400	100.0
Age	21–30	76	19.0
	31–40	156	39.0
	41–50	100	25.0
	51–60	52	13.0
	Above 60	16	4.0
	Total	400	100.0
Gender	Male	208	52.0
	Female	176	44.0
	Other	16	4.0
	Total	400	100.0
Education Qualification	Graduate	168	42.0
	Postgraduate	148	37.0
	Professional Degree	68	17.0
	Other	16	4.0
	Total	400	100.0
Monthly Household Income	Rs.30,000–Rs.50,000	64	16.0
	Rs.50,001–Rs.80,000	120	30.0
	Rs. 80,001–Rs.1,20,000	116	29.0
	Rs.1,20,001–Rs.1,50,000	60	15.0
	Above Rs.1,50,000	40	10.0
	Total	400	100.0
Employment Type	Salaried	204	51.0
	Self-employed	76	19.0
	Business	88	22.0
	Contractual	32	8.0
	Total	400	100.0

**Interpretation:**

The sample consists of 400 respondents from three urban centres in Maharashtra, with the largest proportion from Mumbai (43%), followed by Pune (40%) and Nashik (17%). Most respondents belong to the economically active age group of 31–40 years (39%), followed by 41–50 years (25%). Male respondents constitute 52% of the sample, while females account for 44%.

In terms of education, the majority are graduates (42%) or postgraduates (37%). Most households fall within the monthly income range of ₹50,001–₹1,20,000, reflecting the focus on middle-income households. Salaried employees represent the largest occupational group (51%), followed by business owners (22%) and self-employed individuals (19%). Overall, the sample represents urban middle-income households with diverse occupational and income characteristics

**5.2 Descriptive Statistics**

**Table 2: Descriptive Statistics**

Variable	N	Mini mum	Maxi mum	Mean	Std. Deviation	
<b>Debt Burden</b>	EMI obligations high relative to income	400	1.0	5.0	3.610	1.2657
	Large portion of income committed to loan repayment	400	1.0	5.0	3.590	1.2513
	Reliance on credit for standard of living	400	1.0	5.0	3.560	1.1958
	Multiple loans create financial pressure	400	1.0	5.0	3.620	1.1997
	Debt limits financial flexibility	400	1.0	5.0	3.600	1.2015
	Anxious about meeting loan deadlines	400	1.0	5.0	3.460	1.3239

<b>Debt Stress</b>	Debt affects mental well-being	400	1.0	5.0	3.470	1.2462
	Worry about income instability	400	1.0	5.0	3.430	1.2997
	Lose sleep over financial commitments	400	1.0	5.0	3.430	1.2997
	Feel overwhelmed by outstanding debt	400	1.0	5.0	3.510	1.3245
	Fear missing EMI payment	400	1.0	5.0	3.510	1.2384
<b>Adaptive Coping</b>	Adjust household budget	400	1.0	5.0	3.670	1.0601
	Reduce discretionary spending	400	1.0	5.0	3.730	1.1046
	Seek financial advice	400	1.0	5.0	3.670	1.1508
	Monitor expenses actively	400	1.0	5.0	3.770	1.0583
	Build emergency savings despite debt	400	1.0	5.0	3.700	1.1014
<b>Maladaptive Coping</b>	Take new loans to repay debts	400	1.0	5.0	2.570	1.2764
	Use credit cards for shortages	400	1.0	5.0	2.580	1.2600
	Delay discussing financial issues	400	1.0	5.0	2.650	1.2695
	Withdraw long-term savings for EMI	400	1.0	5.0	2.610	1.2814
	Ignore repayment reminders	400	1.0	5.0	2.610	1.2892
	Avoid financial problems	400	1.0	5.0	2.610	1.2736
<b>Financial Well-being</b>	Confident about financial future	400	1.0	5.0	3.360	1.2706
	Manage unexpected emergencies	400	1.0	5.0	3.340	1.2443
	Feel in control financially	400	1.0	5.0	3.350	1.2536
	Debt does not block long-term goals	400	1.0	5.0	3.310	1.2319
	Satisfied with financial stability	400	1.0	5.0	3.370	1.2152
<b>Financial Literacy</b>	Understand interest calculation	400	1.0	5.0	3.630	1.1733
	Understand borrowing risks	400	1.0	5.0	3.720	1.1423
	Compare financial products	400	1.0	5.0	3.610	1.2172
	Understand debt-to-income ratio	400	1.0	5.0	3.610	1.2417
	Confident in financial decisions	400	1.0	5.0	3.720	1.2022
	Valid N (listwise)	400				

#### Interpretation

Table 2 presents the descriptive statistics of the key constructs examined in the study, including debt burden, debt stress, coping strategies, financial well-being, and financial literacy, measured on a five-point Likert scale. The results indicate moderate levels of debt burden (mean = 3.56–3.62) and debt stress (mean = 3.43–3.51), suggesting that many middle-income households experience financial pressure related to debt obligations. Respondents report relatively higher adoption of adaptive coping strategies (mean = 3.67–3.77), whereas maladaptive coping behaviours show lower mean values (2.57–2.65). Financial well-being (mean = 3.31–3.37) and financial literacy (mean = 3.61–3.72) also indicate moderate levels among respondents. Overall, the descriptive statistics suggest variation in financial stress, coping behaviour, and financial capability among urban middle-income households.

#### 5.3 Reliability and Convergent Validity

**Table 3: Reliability and Convergent Validity**

Construct	Cronbach Alpha	Composite Reliability	AVE
Debt Burden	0.897	0.91	0.65
Debt Stress	0.943	0.94	0.74
Adaptive Coping Strategy	0.898	0.89	0.64
Maladaptive Coping Strategy	0.961	0.96	0.80
Financial Well-being	0.960	0.96	0.83
Financial Literacy	0.926	0.93	0.73

#### Interpretation

Table 3 presents the reliability and convergent validity of the measurement constructs using Cronbach's alpha, Composite Reliability (CR), and Average Variance Extracted (AVE). Cronbach's alpha values range from 0.897 to 0.961 and CR values range from 0.89 to 0.96, both exceeding the recommended threshold of 0.70 and indicating strong internal consistency. The AVE values range from 0.64 to 0.83, which are above the threshold of 0.50, confirming satisfactory convergent validity. Overall, the results support the reliability and validity of the measurement model.

#### 5.4 Discriminant Validity

**Table 4: Discriminant Validity (HTMT Ratio)**

Constructs	DB	DS	AC	MC	FWB	FL
Debt Burden	—					
Debt Stress	0.660	—				
Adaptive Coping	0.307	0.458	—			
Maladaptive Coping	0.246	0.221	0.254	—		
Financial Well-being	0.093	0.098	0.094	0.499	—	
Financial Literacy	0.116	0.106	0.161	0.016	0.086	—

**Interpretation**

Discriminant validity was assessed using the Heterotrait–Monotrait (HTMT) ratio. All HTMT values range between 0.016 and 0.660, which are below the recommended threshold of 0.85, indicating adequate discriminant validity. Although the highest value is observed between debt burden and debt stress (0.660), it remains within acceptable limits, confirming that the constructs represent distinct conceptual dimensions within the measurement model.

**5.5 Confirmatory Factor Analysis**

**Table 5: Factor Loadings**

Construct	Item	Factor Loading
Debt Burden	DB1	0.681
	DB2	0.611
	DB3	0.919
	DB4	0.929
	DB5	0.852
Debt Stress	DS1	0.933
	DS2	0.860
	DS3	0.797
	DS4	0.917
	DS5	0.792
Adaptive Coping	AC1	0.833
	AC2	0.802
	AC3	0.730
	AC4	0.795
	AC5	0.836
Maladaptive Coping	MC1	0.933
	MC2	0.912
	MC3	0.865
	MC4	0.925
	MC5	0.880
Financial Well-being	MC6	0.860
	FWB1	0.845
	FWB2	0.983
	FWB3	0.954
	FWB4	0.829
Financial Literacy	FWB5	0.922
	FL1	0.932
	FL2	0.871
	FL3	0.759
	FL4	0.731
	FL5	0.948

**Interpretation**

Confirmatory Factor Analysis (CFA) was conducted to validate the measurement model and assess the relationship between observed indicators and latent constructs. The factor loadings range from 0.611 to 0.983, exceeding the recommended threshold of 0.60, which indicates satisfactory indicator reliability. These results confirm that the measurement items are appropriate indicators of their respective constructs and support the validity of the measurement model.

**5.6 Model Fit Indices**

**Table 6: Model Fit Statistics**

Fit Index	Recommended	Obtained
CFI	> 0.90	<b>0.970</b>
TLI	> 0.90	<b>0.950</b>
RMSEA	< 0.08	<b>0.063</b>
RMR	< 0.08	<b>0.067</b>

**Interpretation**

The overall model fit was evaluated using standard goodness-of-fit indices. The results indicate an acceptable model fit with CFI = 0.970 and TLI = 0.950 exceeding the recommended threshold of 0.90. Similarly, RMSEA = 0.063 and RMR = 0.067 are below the acceptable

limit of 0.08. These findings confirm that the structural model adequately represents the relationships among the constructs and is suitable for hypothesis testing.

### 5.7 Structural Equation Modelling Results

**Table 7: Structural Model Results**

Hypothesis	Path	Standardized $\beta$	p-value	Decision
H1	Debt Burden $\rightarrow$ Debt Stress	0.660	< 0.001	Supported
H2a	Debt Stress $\rightarrow$ Maladaptive Coping	-0.221	< 0.001	Not Supported
H2b	Debt Stress $\rightarrow$ Adaptive Coping	0.458	< 0.001	Not Supported
H3a	Adaptive Coping $\rightarrow$ Financial Well-being	-0.035	0.467	Not Supported
H3b	Maladaptive Coping $\rightarrow$ Financial Well-being	-0.506	< 0.001	Supported
H4	Debt Stress $\rightarrow$ Financial Well-being	0.002	0.961	Not Supported
H5	Debt Stress $\rightarrow$ Coping $\rightarrow$ Financial Well-being (Indirect Effect)	0.096	< 0.05	Supported (Full Mediation)
H6	Debt Stress $\times$ Financial Literacy $\rightarrow$ Financial Well-being	0.679	0.004	Supported

#### Interpretation

Table 7 presents the structural model results. Debt burden has a significant positive effect on debt stress ( $\beta = 0.660, p < 0.001$ ), supporting **H1**. Debt stress significantly influences adaptive coping ( $\beta = 0.458, p < 0.001$ ) and maladaptive coping ( $\beta = -0.221, p < 0.001$ ); however, the directions differ from the proposed hypotheses, leading to the rejection of **H2a** and **H2b**.

Regarding financial well-being, maladaptive coping strategies have a significant negative effect ( $\beta = -0.506, p < 0.001$ ), supporting **H3b**, whereas adaptive coping strategies are not significant ( $\beta = -0.035, p = 0.467$ ), resulting in the rejection of **H3a**. The direct effect of debt stress on financial well-being is also not significant ( $\beta = 0.002, p = 0.961$ ), leading to the rejection of **H4**.

Mediation analysis shows a significant indirect effect of debt stress on financial well-being through coping strategies ( $\beta = 0.096, p < 0.05$ ), supporting **H5**. Financial literacy also significantly moderates the relationship between debt stress and financial well-being ( $\beta = 0.679, p = 0.004$ ), supporting **H6**.

### 5.8 Mediation Analysis

**Table 8: Mediation Results**

Path	Indirect Effect ( $\beta$ )	p-value	Mediation
Debt Stress $\rightarrow$ Adaptive Coping $\rightarrow$ Financial Well-being	-0.016	> 0.05	No Mediation
Debt Stress $\rightarrow$ Maladaptive Coping $\rightarrow$ Financial Well-being	0.112	< 0.001	Significant Mediation
Debt Stress $\rightarrow$ Coping Strategies $\rightarrow$ Financial Well-being (Total Indirect Effect)	0.096	< 0.05	Full Mediation

#### Interpretation

Mediation analysis was conducted using bootstrapping with 5,000 resamples to examine the indirect effect of debt stress on financial well-being through coping strategies. The results show that maladaptive coping strategies significantly mediate the relationship between debt stress and financial well-being ( $\beta = 0.112, p < 0.001$ ), whereas adaptive coping strategies do not exhibit a significant mediating effect ( $\beta = -0.016, p > 0.05$ ). The overall indirect effect is significant ( $\beta = 0.096, p < 0.05$ ), indicating full mediation.

### 5.9 Moderation Analysis

**Table 9: Moderation Results**

Interaction	Coefficient ( $\beta$ )	p-value	Result
Debt Stress $\times$ Financial Literacy $\rightarrow$ Financial Well-being	0.679	0.004	Significant Moderation

#### Interpretation

The moderating effect of financial literacy on the relationship between debt stress and financial well-being was tested using an interaction term model. The results show that the interaction between debt stress and financial literacy is statistically significant ( $\beta = 0.679, p = 0.004$ ), indicating that financial literacy moderates the relationship between debt stress and financial well-being. This suggests that households with higher financial literacy are better able to manage financial stress and maintain financial stability.

### 5.10 Multicollinearity Test

**Table 10: Variance Inflation Factor**

Variable	Tolerance	VIF
Debt Stress	0.084	11.839
Financial Literacy	0.101	9.943
Debt Stress $\times$ Financial Literacy	0.044	22.847

#### Interpretation

Multicollinearity was assessed using the Variance Inflation Factor (VIF). Although relatively high VIF values are observed due to the inclusion of the interaction term, this is common in moderation models. The independent variables were mean-centered prior to

constructing the interaction term, which helps reduce multicollinearity effects. Therefore, the observed VIF values do not substantially affect the interpretation of the moderation results.

### 5.11 Hypothesis Summary

**Table 11: Hypothesis Testing Summary**

Hypothesis	Decision
H1	Supported
H2a	Not Supported
H2b	Not Supported
H3a	Not Supported
H3b	Supported
H4	Not Supported
H5	Supported (Full Mediation)
H6	Supported

### Interpretation

Table 11 summarizes the results of hypothesis testing. The findings indicate that **H1, H3b, H5, and H6 are supported**, while **H2a, H2b, H3a, and H4 are not supported**. These results highlight the significant role of debt burden, maladaptive coping behavior, and financial literacy in influencing household financial well-being.

### 6. Discussion and Implications

This study examined the relationships between debt burden, debt stress, coping strategies, financial literacy, and financial well-being among urban middle-income households in Maharashtra. The findings provide insights into how financial obligations and behavioural responses influence household financial stability. The results indicate that debt burden significantly increases debt stress, suggesting that higher debt obligations create financial and psychological pressure on households. This finding is consistent with previous studies showing that excessive debt commitments increase financial anxiety and financial vulnerability (Gathergood, 2012; Lusardi & Tufano, 2015). As debt servicing obligations increase, households experience reduced financial flexibility and greater financial stress. The study also finds that debt stress significantly influences coping behaviour. Financially stressed households tend to adopt more adaptive coping strategies while reducing maladaptive behaviours, suggesting attempts to stabilise their financial situation through budgeting, expenditure control, and improved financial management. Regarding financial well-being, maladaptive coping strategies have a significant negative effect, indicating that behaviours such as additional borrowing or financial avoidance reduce financial stability. This finding supports previous research suggesting that maladaptive financial behaviours can exacerbate financial vulnerability (Brown & Taylor, 2008). In contrast, adaptive coping strategies do not show a significant direct effect on financial well-being, suggesting that behavioural adjustments may require time to translate into improved financial outcomes. The results further show that debt stress does not directly influence financial well-being but operates indirectly through coping strategies. The mediation analysis confirms that coping behaviour fully mediates this relationship, highlighting the importance of behavioural responses in shaping financial outcomes. Financial literacy also plays a significant moderating role in the relationship between debt stress and financial well-being. Households with higher financial literacy are better able to manage financial pressure and maintain financial stability, as financial knowledge improves financial decision-making and coping ability. From a theoretical perspective, the study contributes to the literature by integrating debt stress, coping behaviour, financial literacy, and financial well-being within a single framework. From a policy perspective, the findings highlight the importance of strengthening financial literacy and responsible borrowing practices. Financial education initiatives and stronger regulatory oversight of digital lending and unsecured credit markets can help reduce household financial vulnerability and improve financial resilience.

### 7. Limitations of the Study

Despite providing valuable insights into the relationship between debt burden, financial stress, coping strategies, financial literacy, and financial well-being, this study has several limitations. First, the analysis focuses on urban middle-income households in selected cities of Maharashtra, which may limit the generalizability of the findings to other regions or rural populations where financial behaviour and access to financial resources may differ. Second, the study relies on self-reported survey responses that may be subject to perception and reporting biases. Third, the cross-sectional design captures data at a single point in time and therefore limits causal interpretation; longitudinal research could provide deeper insights into how financial stress and financial behaviour evolve over time. Finally, although the study incorporates key variables such as debt burden, coping strategies, and financial literacy, other determinants of financial well-being—including financial attitudes, psychological traits, income volatility, and macroeconomic factors—were not included and may be explored in future research.

### 8. Conclusion

This study examined the relationships between debt burden, debt stress, coping strategies, financial literacy, and financial well-being among urban middle-income households in Maharashtra. The findings reveal that higher debt obligations significantly increase financial stress among households.

The results further indicate that coping strategies play an important role in shaping financial outcomes. While maladaptive coping behaviours significantly reduce financial well-being, adaptive coping strategies do not show a significant direct effect on financial outcomes. The mediation analysis demonstrates that coping behaviour acts as an important mechanism through which financial stress influences financial well-being.

In addition, financial literacy significantly moderates the relationship between debt stress and financial well-being. Households with higher financial knowledge are better able to manage financial pressure and maintain financial stability.

Overall, the study highlights the importance of financial literacy and responsible financial behaviour in strengthening household financial resilience. Promoting financial education and improving awareness regarding borrowing practices can help households better manage financial stress and improve long-term financial well-being.

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