Debt Attitude and Debt Accumulation among Rural Poor Households in a Developing Region: A Q-squared Approach

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Abstract

The relationship between debt attitudes and debt behaviours is a subject of interest for both economists and psychologists alike. Analysing quantitative and qualitative data collected from Kerala, India, this paper contributes to this discourse by examining the extent to which debt attitudes shape the debt behaviours of rural poor households in developing countries; a demographic often overlooked in the current academic discourse surrounding indebtedness. The study observes that the debt attitudes within this demographic are not unidimensional and can be more accurately characterised in terms of general and specific attitudes to debt. Based on a survey encompassing 720 rural poor households, our quantitative analysis indicates that general debt attitudes significantly influence the likelihood of the household having outstanding loans. However, neither general nor specific debt attitudes do not significantly predict the actual amount of debt accumulated by the household. To explore the disconnect between debt attitudes and the magnitude of debt accumulation, qualitative insights derived from in-depth interviews with 21 surveyed households were analysed. Our qualitative exploration uncovers a spectrum of attitudes towards borrowing held by this group, spanning from a strong aversion to favourable inclinations. The analysis identified three plausible explanations for the observed attitude-behaviour disconnect; specifically the inescapable inevitability of borrowing, the dynamic nature of debt attitudes, and debt recycling. From a policy standpoint, our findings suggest that while initiatives targeting debt attitudes could discourage this group's initial dependency on loans, their effectiveness in curbing

subsequent debt accumulation may be limited due to the multifaceted challenges faced by this demographic in their daily lives. Therefore, tackling the issue of excessive household debt among rural poor households in developing countries requires the concurrent formulation of comprehensive policies that address underlying structural issues.

Highlights

- Debt attitudes within rural poor households in developing countries can be characterised by general and specific debt attitudes.

- Attitudes towards borrowing held by this group cannot be strictly demarcated into binary - pro-debt or anti-debt.

- Debt attitude is best viewed as a spectrum ranging from a strong aversion to borrowing to favourable inclinations.

- While general debt attitudes influence the likelihood of a household having outstanding loans, debt attitudes do not predict the quantum of debt.

- The inescapable inevitability of borrowing, the dynamic nature of debt attitudes, and debt recycling possibly explain this attitude-behaviour disconnect.

Acknowledgements

I.   Introduction

The role of psychological attributes in explaining various dimensions of indebtedness has recently gained growing recognition in debt-related academic discussions (Achtziger, 2022; Davies et al.,2019; Goel & Rastogi, 2021; Lea, 2021). While there is no definitive list of these attributes that can comprehensively explain debt dynamics, the respondents' attitude towards debt often emerges as a significant factor (Lea, 2021; Ranyard et al., 2017). Beyond its economic relevance, exploring the relationship between debt attitude and actual debt-taking behaviour also offers valuable insights from a psychological perspective, as it can provide a better understanding of the convergence and divergence of attitudes and actual behaviours in the context of indebtedness.

While several studies have examined the relationship between attitudes toward debt and the level of indebtedness (e.g., Almenberg et al., 2018; Anderloni & Vandone, 2008; Boddington & Kemp, 1999; Chien & Devaney, 2001; Kim & Devaney, 2001; Lebdaoui & Chetioui, 2021; Livingstone & Lunt, 1992), most focus on individual-level debts, such as consumer debt or student debt. A notable gap lies in the existing research regarding the absence of an exploration of the association between debt attitudes and overall household debt.

This gap becomes particularly pronounced when considering the recent surge in household debt globally, raising concerns about its socio-economic impact on households and the broader financial system (IMF, 2017, 2022). Moreover, against the backdrop of the COVID-19 pandemic, multiple reports predict a substantial rise in

household debt (Cooper et al., 2021; Prakarsa, 2020; Tiftik & Guardia, 2020; Wadhwa, 2021).

The detrimental effects of rising household debt are likely more pertinent for rural poor households in developing countries, due to the challenges they face in their daily economic lives, such as informalities in labour markets, limited income-generation opportunities, and underdeveloped credit market structures. Comprehending the debt patterns and the factors influencing the borrowing behaviours of this group is critical for developing effective policy responses to mitigate potential adverse consequences of excessive household debt. However, despite this significance, the indebtedness dynamics of this demographic remain surprisingly underexplored in current academic discourses, particularly concerning the influence of attitudinal factors on their actual debt profiles. One possible reason for this oversight could be the prevalent emphasis on consumer and student loans in the literature exploring the attitudinal determinants of debt behaviours. The relevance of these loans to the loan portfolio held by economically deprived segments residing in rural areas of developing countries may be limited, especially considering the specific financial circumstances they encounter in their daily lives.

By presenting detailed insights derived from both quantitative and qualitative data gathered from India, this paper therefore attempts to comprehensively address the following research question: *To what extent do debt attitudes account for variations in debt accumulation among rural poor households in developing countries?* The aim is to uncover the potential convergence or divergence between debt attitudes and actual debt behaviours within the context of multiple economic constraints, along with exploring the underlying factors that may shape this relationship.

Our research contributes to the existing literature in the following ways. First, it enhances understanding of the indebtedness dynamics of a population that has received limited attention within the academic narratives on attitudes and indebtedness.[1] Second, the prevailing body of research on the attitude-indebtedness relationship employs a purely quantitative approach, which may provide only a partial understanding of the intricate dynamics between debt attitude, actual borrowing behaviour, and the observed pattern of indebtedness. By contrast, our research is relatively unique in adopting a mixed-method approach that combines survey data with qualitative insights derived from semi-structured interviews. Third, our quantitative analysis departs from the most used approach of treating debt attitudes as a unidimensional construct. More specifically, we differentiate between general debt attitudes and specific debt attitudes, in line with Chien & Devaney (2001) and Zhu & Meeks (1994).

Our research is based on data collected in India, home to the world's largest rural population (United Nations, 2019). With over two-thirds of its population and 72 per cent of its workforce residing in rural areas (Chand et al., 2017), India's rural economy is characterised by informality in labour markets[2] and credit market imperfections,[3] aligning with patterns observed in other developing regions.

Nevertheless, the country has demonstrated remarkable progress in levels of financial inclusion in recent years. Bank account ownership in India more than doubled in the past decade, from 35 per cent in 2011 to 78 per cent in 2021, one of the highest growths marked by any developing economy (Demirgüç-Kunt et al., 2021). Additionally, the country boasts the highest number of microfinance organisations globally, indicating increased credit accessibility for its population. Despite India's standing as one of the

fastest-growing developing economies in the world, no previous studies have endeavoured to trace the role of attitudinal traits in determining the indebtedness pattern of Indian households.

As the first study in this direction attempted in India, we chose Kerala as our geographical field of inquiry, the state with the highest level of household indebtedness,[4] as well as the highest level of financial inclusion in the country.[5] Contrary to much of the prevailing literature, which establishes a positive association between debt attitude and the level of indebtedness, our quantitative results indicate that once rural poor households acquire debt, their debt attitudes do not exert a significant influence on the actual amount of debt they hold.

From a policy standpoint, our findings indicate that efforts directed at influencing debt attitudes may discourage the initial reliance on loans among this demographic. However, the effectiveness of such initiatives in mitigating subsequent debt accumulation might be constrained by the myriad challenges this group faces in their daily lives. Consequently, tackling the issue of excessive household debt among the rural impoverished in developing countries necessitates the simultaneous development of policies that target the underlying structural issues.

The remainder of this paper presents the context of the study in Section 2, specifically focusing on the debt attitude-debt behaviour relationships. Section 3 describes the data and methodology. Section 4 presents the quantitative modelling focusing on assessing the role of debt attitudes in determining the indebtedness dynamics of the studied cohort. Section 5 sheds light on the observed disconnect between the level of indebtedness and debt attitudes, as revealed through the quantitative analysis. Section

6 discusses the key findings derived from both quantitative and qualitative analysis and their policy implications. Finally, Section 7 highlights certain limitations of this study and proposes avenues for future research.

II.   Debt Attitude-Debt Behaviour Consistency and Poverty

Several prior studies have identified a range of psychological attributes that may play a role in determining debt-related behaviours alongside socio-demographic and economic factors. These attributes include attitude towards debt (Almenberg et al., 2018; Białowolski et al., 2020; Lea et al., 1995; Lebdaoui & Chetioui, 2021; Livingstone & Lunt, 1992; Walker, 1996), attitude towards money (Norvilitis et al., 2003; Wang et al., 2011), attitude towards risk (Almenberg et al., 2018; Bauer et al., 2012; Brown et al., 2013; Flores & Vieira, 2014; Keese, 2012), forward lookingness (Keese, 2012; Walker, 1996), impulsivity (de Matos et al., 2019; Frigerio, 2020; Lebdaoui & Chetioui, 2021; Ottaviani & Vandone, 2011); locus of control (Davies & Lea, 1995; Livingstone & Lunt, 1992; Lea et al., 1995), materialism (de Matos et al., 2019; Donnelly et al., 2012; Flores & Vieira, 2014; Garðarsdóttir & Dittmar, 2012; Ponchio & Aranha, 2008; Walker, 1996), self-control (Achtziger et al., 2015; Webley & Nyhus, 2001); self-esteem (de Matos et al., 2019; Keese, 2012; Lebdaoui & Chetioui, 2021; Mewse et al., 2010), social influence (Walker, 1996; Webley & Nyhus, 2001), time preference (Brown et al., 2013; Lea et al., 1995; Walker, 1996; Webley & Nyhus, 2001) etc. Additionally, even though they do not strictly fall under the category of psychological attributes, financial literacy (Disney & Gathergood, 2011; Kurowski, 2021; Lusardi & Tufano, 2015; Schicks, 2014) and money management skills (Garðarsdóttir & Dittmar, 2012; Lea et al., 1995; Webley & Nyhus, 2001) have also been figured in many studies as the predictors of debt behaviours.

Achieving consensus on an exhaustive list of psychological variables that determine diverse debt dynamics remains an ongoing challenge (Goel & Rastogi, 2021). In a recent literature review on the psychological evidence of debt behaviours, Lea (2021) broadly categorises these attributes into three groups: dispositional factors (e.g., impulsiveness, self-control), attitudinal factors (e.g., attitude towards debt, attitude towards risk, materialism), and cognitive factors (e.g., financial literacy, money management skills). While dispositional factors are considered challenging to modify through policy interventions, attitudes are deemed more mutable and potentially better targets for policy. Specifically, the author considers attitudes towards debt as the most promising target for policy intervention (Lea, 2021).

The issue of attitude-behaviour consistency has long been a focal point of investigation among psychologists (Ajzen, 1996; Ajzen & Fishbein, 1977; Bechler et al., 2021; Gross & Niman, 1975; Kaiser & Schultz, 2009; Roedder et al., 1983). The rise of behavioural economics as an independent field of discipline, informed by research between economics and psychology, has expanded the scope of studies on attitude-behaviour relationships to real-world economic issues. Debt behaviour is one such area where psychologists and economists share common interests. Several studies have argued that attitudinal factors and personality traits are more important than socio-demographic and economic ones in comprehending indebtedness dynamics (Livingstone & Lunt, 1992; Wang et al., 2011). Conversely, another perspective posits a disconnect between debt attitudes and actual debt behaviours for various reasons (Abdul-Muhmin, 2008; Chien & Devaney, 2001; Ponchio & Aranha, 2008). For instance, some consumers might have a favourable attitude towards borrowing, but due to their lower incomes and poor credit histories, they may not be able to obtain

loans (Chien & Devaney, 2001). However, aside from a few studies such as Abdul-Muhmin (2008), Lebdaoui & Chetioui (2021), and de Matos et al. (2019), the majority of research in this area is conducted in developed countries. The relative lack of focus on developing countries may stem from the scarcity of reliable data from these regions. Unlike developed countries, which have incorporated attitudinal attributes in their large-scale surveys, developing countries have seldom made such an attempt.

Against this backdrop, this paper explores the relationship between debt attitudes and debt behaviours among rural poor households in a developing region. Given the intricate interplays of multiple factors and constraints in the context of poverty and indebtedness, our objective is to uncover the role of debt attitudes in predicting the indebtedness patterns of a group facing challenges of low income, irregular and unpredictable income flows, and a lack of developed credit market structures (Collins et al., 2009; Fenton et al., 2017; Guerin et al., 2012; Krishna, 2004).

III. Data & Methodology

Approach

To capture an in-depth understanding of the debt attitude and the actual debt accumulation of an economically deprived population segment, we adopted a Q-squared approach. This approach is widely recognised as a valuable technique in development studies, particularly within the realm of poverty analysis (Shaffer, 2013). In line with Parker & Kozel (2007), this study adopts a "qual-quant-qual" sequencing pattern, wherein the household survey was preceded and followed by in-depth qualitative fieldwork. This approach is acknowledged for its ability to better identify

the complete spectrum of relevant factors surrounding any development issue and their intricate and multi-layered interactions (Parker & Kozel, 2007).

To provide a more comprehensive picture of the debt-related dynamics of the studied cohort, we employed three distinct types of loan arrangements as dependent variables: the total amount of loans outstanding, the amount paid as monthly instalments to formal credit sources, and the amount paid as monthly instalments to both formal and informal credit sources. By adopting this multifaceted approach, we aimed to capture a broader spectrum of the relationship between debt attitudes and debt behaviours compared with many previous studies.

Procedures

The study was conducted in three stages. In the first stage, we undertook a preparatory study, including key informant interviews and focus group discussions. In this preliminary phase, our objective was to capture an overarching understanding of the financial lives, debt-related experiences, various dimensions characterising the debt lives, and the factors that could potentially predict the indebtedness dynamics of rural poor households in Kerala. The insights obtained from this stage played a pivotal role in the design of the questionnaire and interview schedules employed in the subsequent stages of the study.

In the second stage, a household survey was conducted among a representative sample of 765 rural poor households from three districts in Kerala. To ensure the representativeness of the Kerala population, we adopted a multistage cluster sampling technique.[6] We identified poor households based on the colour of the Public Distribution System (PDS) cards they hold.[7] The data was collected using a structured

questionnaire (which was administered in the local language of Kerala) from the adult member with the highest financial decision-making power in the household. In total, 765 households were approached for the survey, and 729 interviews were successfully completed. After checking for and excluding returns with missing data, a final sample of 720 households was drawn for the full analysis.

In the third stage, our focus was on supplementing the quantitative data with qualitative insights obtained through semi-structured interviews conducted with households identified from the previous survey. Of the 50 households shortlisted for these interviews, 22 indicated their willingness to participate. In this stage, we employed a semi-structured interview schedule to guide the respondents in narrating the financial story of their households, particularly their debt-related experiences and their perceptions of borrowing. One interview had to be discontinued as the respondent felt uncomfortable recounting the financial story of her family, leaving 21 validated interviews for the final analysis. By analysing these interviews, we tried to uncover the intricate relationships between their debt attitudes and actual debt-related behaviours.

Adaptation of Constructs

In addition to attitude towards debt, our quantitative modelling incorporated a debt literacy component as well. Given that the available constructs to measure these attributes were predominantly developed in the context of developed countries, it was necessary to adapt them to the specific context of Kerala. After considering various scales found in the existing literature, we selected the following as they were more

appropriate and better suited to the specific cultural context and target group of our

study (Table 1).

Table 1: Selected Scales to Measure Debt Attitude and Debt Literacy

Construct	Definition	Considered Literature for Scale Selection	Selected Scale
Debt Attitude	Individuals' judgement about engaging in debt obligations and the inclination to respond favourably to debt behaviour (de Matos et al., 2019).	Białowolski et al. (2020); Chien & Devaney (2001); Davies & Lea (1995); de Matos et al. (2019); Flores & Vieira (2014); George et al. (2018); Harrison et al. (2015) Haultain et al. (2010); Kaur & Arora (2019); Lea et al. (1993); Lea et al. (1995); Loibl et al. (2021); Zhu & Meeks (1994)	Debt Attitude Scale (Lea et al., 1995)
Debt Literacy	The ability to make simple debt-related decisions by applying basic knowledge about interest (Lusardi & Tufano, 2015)	Białowolski et al. (2020); Disney & Gathergood (2011); Lusardi & Tufano (2015)	Debt Literacy Scale (Disney & Gathergood, 2011)

While there is no universal agreement on how to adapt an instrument to another cultural setting, there is agreement that simply translating the questionnaire into a different context is inappropriate (Borsa, et al., 2012; Gjersing et al., 2010; Hedrih,

2020). Drawing from relevant literature and interacting with the experts, we adopted the following process to adapt the existing scales to the context of Kerala.

First, we translated the existing constructs from English to Malayalam (the local language of Kerala) with the help of two independent bi-lingual translators. In the second stage, the translated versions of the constructs were considered by an expert panel of eight members consisting of psychologists, bankers and academicians. Based on their suggestions, contextually irrelevant questions were deleted, and questions pertinent to Kerala were added. The constructs were piloted among a sub-sample of the targeted population (70 households) and checked for validity. Based on the piloting, changes were made to the constructs and submitted for further consideration by the expert panel. The constructs were then back-translated to English with the help of two other independent bi-lingual translators and submitted for final approval to the expert panel.

Factor Analysis

Using our survey data, we undertook a confirmatory factor analysis based on the locally adapted questions detailed above to measure two latent variables at the household level; general attitude to debt; and specific attitude to debt. The results of this analysis can be found in Table 2. The t-values for all the items are statistically significant at or above the 95% confidence level. The standardised factor loadings are generally high and are close to or above the standardised threshold of 0.7 and all significantly above the minimum level of 0.5 recommended by Hair et al. (2018).

In terms of consistency and reliability, the Cronbach's Alpha (CA) values for our constructs reflecting attitudes to debt are around or above the acceptable threshold of

0.6 suggested by Hair et al. (2018). However, it should be noted that the use of CA values is limited by the assumption that all indicators are equally reliable (Raykov, 2007). Therefore, alongside these CA values, we also present data on Composite Reliability (CR) as an additional measure of internal consistency. These are all above the recommended threshold of 0.7 (Hair et al., 2014). Additionally, the Average Variance Explained (AVE) statistics for both of our constructs are above the accepted threshold of 0.5. Overall, we are confident that the observed variables adequately correlate with the latent variables we measure and are satisfied with the internal consistency of our constructs.

Table 2: Assessment of Measurement

Construct	CA	CR	AVE	Indicator*	Standardised Factor Loading	t-value	Mean	Std Dev
General Attitude to Debt	0.59	0.76	0.52	• Taking loans would help us make our lives more comfortable.	0.621	2.150***	4.142	0.594
				• Taking a loan is not at all a good thing. ®	0.895	2.676***	3.953	0.663
				• We should live within our income. ®	0.606	1.943**	4.093	0.423
Specific Attitude to Debt	0.79	0.85	0.53	• Taking a loan, even for medical purposes, is not right. ®	0.852	7.587***	2.394	0.868
				• There is nothing wrong in celebrating events like marriage and childbirth, even if by taking loans.	0.666	4.272***	2.801	0.991
				• It is OK to borrow money to repay an earlier debt.	0.675	6.278***	3.344	0.961
				• It is OK to have debt if you know you can pay it off.	0.814	6.403***	2.432	0.961
				• Borrowing money to build or buy a house is never a good idea. ®	0.626	5.417***	3.436	0.953

*Refer to Annexure I for the full list of indicators included in the original debt attitude scale

Note: Variables are measured on a 1-5 Likert scale, where 1 being "strongly disagree" and 5 being "strongly agree"; ® denotes reverse items

CA = Cronbach's Alpha; CR = Composite Reliability; AVE = Average Variance Explained

IV.   Quantitative Analysis

Following the derivation of factor scores for our latent variables, we used a Heckman two-stage modelling approach to examine the influence of debt attitude on household debt levels. The first stage investigated the probability of having outstanding debt, and the second stage explored the factors influencing the extent of indebtedness, conditional upon the factors affecting the probability of debt estimated as part of the first stage.

Dependent Variables

During the focus group discussions undertaken at the preparatory stage of the study, we noticed that the respondents in our cohort attribute different meanings to various types of loans. Specifically, they regard loans with regular repayment schedules as constituting their actual debt burden. These loans encompass both formal and informal sources. For instance, all loans obtained from formal credit sources such as commercial banks, cooperative societies, microfinance institutions, and self-help groups come with regular repayment schedules, except for gold loans. Despite being taken from formal credit institutions and forming a significant component of their loan portfolio (32% of the respondent households have at least one outstanding gold loan), our respondent group does not perceive gold loans as part of their debt burden as they do not entail stringent regular repayment schedules. Conversely, loans from moneylenders, even though informal, are viewed as part of their debt burden. This is because they must regularly repay these loans, as failure to do so results in punitive interest rates. On the other hand, loans from friends or family members, advances

from employers, or credit from local grocery shops are not perceived as a debt burden as these loans are typically interest-free and lack regular repayment structures.

To better capture these dynamics, we separately incorporated three distinct measures of debt burden as dependent variables in our modelling. During the first stage of the Heckman modelling selection process, these three variables capture whether a household possesses three specific types of loans or not. Debt Burden 1 (DB1) assesses whether a household has any type of outstanding loans (with or without a regular repayment schedule) from any source (formal or informal). Debt Burden 2 (DB2) determines whether a household holds any outstanding loans from a formal credit source with a regular repayment structure. Debt Burden 3 (DB3) measures whether a household has any outstanding loans with a regular repayment structure, encompassing both formal and informal credit sources.

In the second stage, these variables measure the extent of indebtedness from these three types of loan arrangements, conditional on the probability of having any of these forms of debt based on the first-stage results. While DB1 provides an overview of the overall debt position of the households, DB2 captures the monthly debt repayment commitment of the households towards formal credit sources, and DB3 measures the total monthly debt repayment commitment of the households towards both formal and informal credit sources.

Table 3 presents descriptive statistics for dependent variables included in the study. Among the 720 households covered in the survey, a substantial majority (84%) have at least one form of outstanding debt. 71 per cent of households have at least one

instalment loan from formal credit sources, and 76 per cent reported having at least

one instalment loan either from formal or informal credit sources (Table 3).

Table 3: Descriptive Statistics of Dependent Variables

Measure	Description	Obs*	%	Mean	Std. Dev.	Min	Max
DB1	Total outstanding debt amount owed by the household from every source	608	84.4	230558	347626	300	5166200
DB2	The amount paid as monthly instalments towards formal credit sources that follow regular repayment schedules. To calculate this variable, only the loans from formal sources with regular repayment commitments are considered. It excludes all the loans from informal sources and those loans from formal sources that do not follow any regular repayment structure (such as gold loans).	514	71.4	6871	5579	200	31730
DB3	The total amount paid by a household as monthly instalments. It includes monthly payments towards both formal and informal loans with regular repayment schedules.	546	75.8	7213	6169	200	34980

*Only the households with loans from the relevant credit sources are considered

Independent Variables

For analysis, we categorised the independent variables into three groups: demographic, economic and attitudinal/cognitive- as presented in Tables 4, 5 and 6, respectively, which showcase the characteristics of sample households.

In over 80% of the sample households, the average age of adult members ranges between 31 and 60 years, indicating the presence of at least one working-age member in most of the households. However, the majority of households (83%) do not have a single member with stable employment or a regular salary. This is unsurprising given the prevalence of informal employment, particularly manual wage labour, among rural poor households in Kerala.[8]

Table 7 shows the correlation coefficients for all pairs of variables included in our quantitative modelling. The very high correlation between DB2 and DB3 implies that many households hold significant debt through formal channels. The correlation between the independent variables is generally very low. Only a very small number of pairs demonstrate a correlation coefficient of above 0.2 in absolute terms, and none exceed a level of 0.5. These values indicate that our models are highly unlikely to suffer from any issues of multicollinearity.

Table 4: Descriptive Statistics for Demographic Variables

Measure	Description	Item	Obs	Mean	Std. Dev.	Min	Max
Religion	Religion of the household head	Hindu*	720	0.788	-	0	1
		Christian	720	0.111	-	0	1
		Muslim	720	0.101	-	0	1
Social category[9]	Social category in which the household head belongs to	SC	720	0.199	-	0	1
		ST	720	0.136	-	0	1
		OBC*	720	0.499	-	0	1
		General	720	0.167	-	0	1
HH educational attainment	The highest level of education attained by any member of the household. The educational levels were categorised into eight distinct tiers and assigned numerical values ranging from 1 to 8, with lower values representing lower educational attainment and higher	-	720	4.667	1.502	1	8

Measure	Description	Item	Obs	Mean	Std. Dev.	Min	Max
	values denoting higher levels of education.						
HH average age	The average age of the adult members (+15 years) of the household	-	720	47.045	11.738	23.2	90

Note: Categories with asterisk (*) signs serve as the reference categories in the quantitative modelling; therefore, do not appear in the subsequent analyses

Table 5: Descriptive Statistics of Economic Variables

Measure	Description	Item	Obs	Mean	Std. Dev.	Min	Max
HH employment ratio	The proportion of employed household members to the total household size	-	720	0.460	-	0	1
HH income	Total income of the household in a normal month	-	720	16012	10541	200	62110
Housing tenure	Nature of the residence ownership resided by the respondent household	Own property with title deed	720	0.856	-	0	1
		Do not own property with title deed*	720	0.144	-	0	1

HH stable income count	Number of household members with stable jobs and regular income	-	720	0.171	0.444	0	3
HH economic category	This variable aims to capture the economic differentiation within low-income groups based on the colour of the PDS card held by a household. In Kerala, although both yellow and pink cardholders are considered low-income households, those holding yellow cards are considered extremely poor.	Yellow PDS card	720	0.275	-	0	1
		Pink PDS card*	720	0.725	-	0	1

Note: Categories with asterisk (*) signs serve as the reference categories in the quantitative modelling; therefore, do not appear in the subsequent analyses

Table 6: Descriptive Statistics of Attitudinal & Cognitive Variables

Measure	Description	Obs	Mean	Std. Dev.	Min	Max
General attitude to debt (GDA)	Measures the respondent's attitude toward borrowing in general	720	0.000	1.001	-5.24	2.17
Specific attitude to debt (SDA)	Assesses the respondent's attitude toward borrowing in particular situations	720	0.000	1.001	-2.345	2.734
Debt literacy (DL)	Measures the level of debt literacy of the respondent. Measured by counting the correct answers given by the respondent to the three questions provided in Annexure I	720	1.207	0.985	0	3

Table 7: Correlation Coefficients

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. DB1	1																	
2. DB2	.54	1																
3. DB3	.52	.94	1															
4. Christian	.12	.06	.04	1														
5. Muslim	-.05	-.16	-.16	-.11	1													
6. SC	-.05	.09	.11	-.18	-.19	1												
7. ST	-.08	-.14	-.13	-.08	-.09	-.14	1											
8. General	-.05	-.02	-.05	-.14	.53	-.24	-.11	1										
9. HH educational attainment	.19	.20	.18	-.05	.03	.06	-.03	.07	1									
10. HH average age	-.07	-.14	-.14	-.21	-.02	-.01	-.12	.01	-.45	1								
11. HH employment ratio	-.01	.03	.02	-.15	.03	.06	.03	-.05	.03	.01	1							
12. HH income	.12	.23	.21	-.13	.05	.06	.00	-.01	.27	-.23	.32	1						
13. Own property with title deed	.05	.13	.08	-.22	.12	-.09	-.12	.13	.03	.20	.05	-.04	1					
14. HH stable income count	.10	.04	.01	-.11	.03	.08	-.03	.02	.19	-.07	.16	.33	.02	1				
15. Yellow PDS card	-.01	-.04	-.02	-.11	-.08	.05	.45	-.07	-.13	.05	.01	-.03	-.02	.02	1			
16. GDA	.01	.02	.00	.12	-.02	.11	-.11	-.03	.02	.05	-.04	-.04	.01	.01	-.10	1		
17. SDA	-.04	-.06	-.04	.08	-.08	.01	.04	.01	-.10	.08	-.01	-.04	-.03	.00	.03	.24	1	

19. DL		.06	.03	.00	.07	.15	-.11	-.13	.20	.16	-.17	-.05	.06	.04	.05	-.14	-.02	-.09	1

Heckman's Two-Stage Modelling

The first stage of Heckman's modelling (Table 8a) reveals that the general attitude towards debt held by the individual with the highest decision-making power within a household plays a significant role in determining whether the household has any outstanding loans or instalment loans. As favourability towards debt increases, the probability of a household acquiring loans also increases. This finding is consistent across each of the three dependent variables in the model. However, the specific debt attitude does not exhibit a statistically significant influence on whether a household possesses any type of outstanding loan.

In addition to the general debt attitude, certain socio-demographic characteristics of the households are observed to predict whether or not a household has outstanding loans. The effects, however, vary across different types of loan arrangements. The highest educational level within a household, the average age of the adult members of a household, and the economic category to which a household belongs consistently predict the incidence of all three types of debt.

Consistent with expectations, households with a higher average age are less likely to take loans of any description. This tendency may be attributed either to the perceived lack of confidence within this demographic regarding their ability to repay or to the credit constraints they face stemming from lenders' reluctance to extend loans to this group due to the diminished repayment capacity associated with them. Households with higher educational levels are more likely to have all three types of debts included in our model, possibly due to the greater credit accessibility they enjoy.

Households possessing yellow PDS cards, indicative of extreme poverty, are less likely to have any type of loan. Similarly, ST households, considered the most socially deprived group, are less likely to possess instalment loans compared to the OBC category. Taken together, these observations could suggest that highly impoverished or socially deprived households either be experiencing a credit crunch or exercising caution in borrowing driven by concerns about their repayment capability.

Religion appears to exert a significant influence on the likelihood of having outstanding loans. The data indicates that Christian households are less likely to have outstanding debts when compared to Hindu households. Muslim households exhibit an even lower likelihood of having any instalment loan compared to Hindu households. Considering the religious values of Islam, which prohibit the payment and receipt of interest, this finding becomes quite understandable, as instalment loans typically involve interest.

The second stage of the modelling provides insights into the magnitude of the debt burden shouldered by respondent households through the three types of loan arrangements (Table 8b). Neither general nor specific attitudes towards debt are found to exhibit significant effects on any form of debt burden borne by these households.

Household income tends to exhibit a positive association with the amount of debt accumulated from all three loan arrangements. We find that social category significantly associates with the overall debt burden and total monthly instalments, combining both formal and informal sources. Similarly, the respondents residing in self-owned properties with a title deed tend to contribute a higher amount as monthly instalments. This finding aligns with expectations since housing loans constitute an

important component of loans with regular repayment schedules. The number of household members with stable jobs and regular income exhibits a negative relationship with the amounts paid by the households as monthly instalments. Households with higher levels of education tend to carry a greater amount of total outstanding debt. Furthermore, it is noteworthy that in comparison to households holding pink PDS cards, households with yellow PDS cards (indicating extreme poverty) tend to accumulate a significantly larger amount of total outstanding debt once they have entered into debt.

Table 8a: Heckman Two-Stage Results (First Stage)

MODEL	I			II			III		
DEPENDENT VARIABLE	Ln DB1			Ln DB2			Ln DB3		
Christian	-0.462	(0.230)	**	-0.360	(0.208)	*	-0.331	(0.216)	
Muslim	-0.108	(0.247)		-0.569	(0.201)	***	-0.688	(0.205)	***
SC	0.347	(0.209)	*	0.029	(0.167)		-0.012	(0.171)	
ST	-0.310	(0.231)		-1.315	(0.212)	***	-0.888	(0.213)	***
General	-0.260	(0.207)		-0.290	(0.185)		-0.253	(0.192)	
HH educational attainment	0.200	(0.064)	***	0.238	(0.056)	***	0.204	(0.057)	***
HH average age	-0.024	(0.007)	***	-0.018	(0.006)	***	-0.022	(0.006)	***
HH employment ratio	0.247	(0.252)		0.320	(0.228)		0.186	(0.231)	
Ln HH income	0.006	(0.099)		-0.013	(0.087)		-0.008	(0.088)	
Own property with title deed	0.258	(0.168)		0.021	(0.149)		0.048	(0.151)	
HH stable income count	0.171	(0.198)		0.260	(0.166)		0.182	(0.166)	
Yellow PDS card	-0.592	(0.165)	***	-0.310	(0.149)	**	-0.396	(0.151)	***
GDA	0.188	(0.076)	**	0.180	(0.062)	***	0.142	(0.063)	**
SDA	0.024	(0.067)		0.032	(0.058)		0.075	(0.059)	

DL	-0.061	(0.070)		-0.051	(0.061)		-0.051	(0.062)
_cons	1.365	(1.097)		0.827	(0.952)	*	1.304	(0.974)	***

Note: Standard errors in parentheses, ***$p < .01$; **$p < .05$; *$p < .1$

Table 8b: Heckman Two-Stage Results (Second Stage)

MODEL	I			II			III		
DEPENDENT VARIABLE	Ln DB1			Ln DB2			Ln DB3		
SC	-0.332	(0.174)	*	0.105	(0.106)		0.149	(0.111)	
ST	-1.589	(0.246)	***	-0.145	(0.281)		-0.710	(0.200)	***
General	-0.081	(0.199)		0.065	(0.125)		-0.003	(0.124)	
HH educational attainment	0.288	(0.084)	***	0.039	(0.061)		0.043	(0.058)	
HH employment ratio	-0.308	(0.266)		-0.250	(0.181)		-0.177	(0.183)	
Ln HH income	0.357	(0.097)	***	0.327	(0.063)	***	0.307	(0.066)	***
Own property with title deed	0.007	(0.165)		0.371	(0.109)	***	0.245	(0.111)	**
HH stable income count	0.034	(0.142)		-0.181	(0.091)	**	-0.172	(0.095)	*
Yellow PDS card	0.495	(0.215)	**	0.219	(0.123)	*	0.202	(0.131)	
GDA	0.033	(0.069)		-0.057	(0.048)		-0.039	(0.047)	
SDA	0.009	(0.065)		-0.017	(0.042)		-0.036	(0.045)	
DL	0.055	(0.067)		0.011	(0.044)		0.024	(0.046)	
_cons	7.100	(1.028)	***	5.201	(0.705)	***	5.504	(0.711)	***
Lamda		-1.095	**		-0.687	**		-0.827	**

Wald Chi Squared	83.53 ***	49.95 ***	48.72 ***

Note: Standard errors in parentheses, ***$p < .01$; **$p < .05$; *$p < .1$

V. Qualitative Insights

In contrast to much of the prior literature that establishes a positive association between debt attitude and the level of indebtedness, our quantitative analysis suggests that attitude to debt affects only the probability of acquiring debt, but does not influence the actual amount of debt they hold. To better understand this disconnect between debt attitudes and the extent of indebtedness, we undertook a qualitative analysis involving in-depth interviews among 21 households identified from the household survey, all of whom reported struggling with excessive debt burdens. The respondents were encouraged to elaborate on their views on borrowing and narrate their households' financial stories, explaining all the factors, events, and circumstances that have contributed to their excessive debt burden. Analysing their narratives, we attempted to gain a more profound and nuanced comprehension of the debt attitudes held by this specific population group, as well as the elements that influence and shape these attitudes.

The level of indebtedness of the interview participants is reported in Table 9. The table indicates that the average level of debt burden borne by these households is considerably higher than that of the total survey sample. All interviews were conducted in the native language of Kerala and audio recorded. The interviews were transcribed verbatim, translated into English, and analysed using Nvivo.

Table 9: Magnitude of Indebtedness Prevailed among Households Selected for Qualitative Analysis

Magnitude of Indebtedness	Sample Selected for In-depth Interviews	Overall Sample
Average number of loans per indebted household	7.0	2.7
Average outstanding debt amount per indebted household (in Monetary Value)	INR 492,911	INR 230,558
Average monthly debt repayment commitment towards formal credit sources (in Monetary Value)	INR 13,872	INR 6,871
Average monthly debt repayment commitment towards all credit sources (in Monetary Value)	INR 17,332	INR 7,213

From the views expressed by the respondents concerning borrowing, we identified their general and specific attitudes towards debt. It was noted that while discussing their perspectives on borrowing, participants often emphasised three key elements: the advantages of borrowing, the disadvantages of borrowing, and situations where borrowing is perceived as an inescapable inevitability. The element of "inescapable inevitability" might be particularly relevant to our sampled population segment, considering the multiple socio-economic constraints confronted in their daily lives. The respondents frequently associated their mentions of the "inescable inevitability of borrowing" with one or more structural factors, such as unstable jobs, irregular income, low wages, and the consequent lack of savings. Based on their general and specific attitudes towards debt and the discussed elements, we categorised the interview participants into five groups and identified factors influencing each group's attitudes (Table 10).

Table 10: Grouping of Interview Participants based on their Attitude towards Borrowing

Group	Attitude towards Debt		Factors that Shaped Attitudes towards Debt		Discussed Elements		
	General Attitude	Specific Attitude	General Attitude	Specific Attitude	Advantages of Loans	Disadvantages of Loans	The inescapable inevitability of borrowing
Group I (4) *	Extremely against borrowing. Fears debt.	Do not wish to borrow anymore under any circumstances.	• Experiences of struggling with an excessive debt burden • Inability to repay	• Experiences of struggling with an excessive debt burden • Inability to repay		●	
Group II (9)	Against borrowing.	Even if do not want to borrow, it is unavoidable under certain circumstances.	• Experiences of struggling with an excessive debt burden • Inability to repay	Compulsion emerging out of • Fear of unforeseen events/shocks • Irregular jobs and unstable income • Lack of savings		●	●

				• Social norms and community obligations			
Group III (3)	Did not explicitly reveal the exact attitude; instead, held a view that borrowing is inevitable.	Did not explicitly reveal the exact attitude; instead, held a view that borrowing is inevitable.	Compulsion emerging out of • Fear of unforeseen events/shocks • Irregular jobs and unstable income • Lack of savings	Compulsion emerging out of • Fear of unforeseen events/shocks • Irregular jobs and unstable income • Lack of savings			•
Group IV (4)	Neutral. Borrowing is not a problem if there are adequate means to repay; otherwise, avoid it.	Mixed • Satisfaction of needs brings happiness • Repayment is stress • Borrowing is unavoidable under certain circumstances	Ability or inability to repay	• Happiness derived from the satisfaction of needs • Repayment-related stress • Compulsion emerging out of o Fear of unforeseen events/shocks o Irregular jobs and unstable income o Lack of savings	•	•	•

				o Social norms and community obligations			
Group V **(1)**	Favourable. There is nothing wrong with borrowing.	Favourable. Needs should be satisfied even by borrowing.	Borrowing is a part of life	Needs cannot be left unfulfilled	●		

*The figures in parenthesis represent the number of interviewed households belonging to each group

Respondents belonging to Group I exhibit an overwhelmingly negative attitude towards borrowing in general, expressing a deep fear of debt. Concerning their specific debt attitude, they unequivocally stated that they do not wish to borrow any more under any circumstances. They discussed only the disadvantages of borrowing. It is noted that their extremely negative view of borrowing was shaped by their ongoing struggles with debt and their inability to meet repayment obligations due to their financial circumstances, as exemplified by the following comment from a 56-year-old respondent, who is presently unemployed.[10]

> We have had enough of debts. We suffered a lot because of loans. Now, I don't want any more loans. If we borrow, then we have to repay it, right? I don't have any means to repay. So I don't want to borrow.

Some of the extreme comments on borrowing shared by the respondents in this group were as follows:

> debt is a trap …
>
> debt can ruin our lives …
>
> borrowing will make your life terrible …
>
> One can buy only stress with loans. Not happiness …

Those who belong to Group II also shared a negative attitude towards borrowing in general, influenced by their encounters with debt-related difficulties and their financial inability to meet repayment obligations. However, when it came to their specific attitude, they did mention that borrowing may be unavoidable in certain situations. Many of them explicitly stated that, even though they do not wish to borrow, they are sometimes forced to do so because they have no other option. Thus,

they discussed the disadvantages of loans and the inescapable inevitability of borrowing. An example of such a view is presented below:

> I don't have any good opinion about borrowing. Is it enough to take loans? We should also see a way to repay it, right? We don't have money with us. So we won't take any more loans. We always decide not to take any more loans. But when some emergency, like a hospital case, comes, we don't have any other option. We are ordinary people. We don't have any savings with us. So, we are compelled to borrow. We are not taking loans because we want to take loans. (49-year-old daily wage casual labourer)

Nevertheless, the circumstances under which the respondents belonging to this group were willing to incur debt differed from person to person. While some people believe that borrowing is only acceptable in times of emergencies or health shocks, others believe that debts may have to be incurred for purposes such as education, home construction/renovation, and life-cycle events. However, the common thread connecting this group is that their tolerance towards debt is primarily driven by the compulsion and unavoidability of borrowing within their specific context. For instance, the spending on life-cycle events and the resulting indebtedness are often attributed to individual responsibility and perceived as an irrational behaviour stemming from an overly favourable attitude towards debt. However, among this group, even their tolerance for borrowing or taking loans to celebrate these events is shaped by societal/cultural norms and further reinforced by strong social ties that hold particular significance for this population segment, as evident from the following excerpts:

Not only for emergencies but sometimes you will have to borrow for other purposes as well. Like marriages (sighs) ... Even though you don't have to conduct it in a grand and pompous manner, you will have to conduct it in at least a minimum proper way ... We live in a colony by helping each other ... So, when a marriage takes place in our home, we cannot avoid inviting them. If we accidentally omit someone, it will become a big complaint later ... So, there will be an expense, right? Inviting the nears and dears. Giving them a meal. We cannot avoid that. So, we will have to take loans for such purposes. (Daily wage worker living in a tribal colony)

Giving some food to nears and dears is the only little happiness people like us can expect. They also invite us to the functions at their home, right? We also go there and have food, right? So how can we avoid them when celebrating a function at our home? Only they will be there with us when we have got a need ... Then, we will have to borrow in such situations, even though we don't want to. (Daily wage worker from an SC community)

The role of social capital in influencing one's financial behaviour and outcomes has been highlighted by Agarwal, et al. (2011). For those living in poor, high-risk environments of villages in developing countries, the informal social network frequently serves as a crucial coping mechanism to mitigate the effect of poverty and enhance their resilience against risks and shocks (Lubbers et al., 2020; Klärner & Knabe, 2019; Rockenbauch & Sakdapolrak, 2017; Townsend, 1994; Woldehanna et al., 2022). Often, this group perceives themselves as powerless to challenge the societal pressures stemming from existing socio-cultural norms and a web of obligations. Thus, we observed that three factors primarily influence this group's specific attitudes

towards borrowing: structural factors, such as unstable jobs, irregular income, or low wages leading to insufficient savings; social norms and community obligations; and their fear of unforeseen events or shocks.

Group III consists of interviewees who did not explicitly state whether borrowing is acceptable to them or not. Instead, they emphasised that their opinions hold little significance as they have no alternative but to borrow when confronted with unexpected events or shocks, given their precarious financial situations and the structural constraints they encounter daily. This implies that, among the studied group, at least some believe that their attitude is irrelevant concerning their actual debt-taking behaviours. Thus, while discussing their perspectives on borrowing they solely emphasised the inescapable inevitability of borrowing, accepting debt as their fate or an unavoidable requirement within their circumstances. This made it almost impossible to dissect and separate their general and specific attitudes, as exemplified by the following comment:

> Opinion means what? If you don't have any other choice, then you will have to borrow, right? If any emergency arises, such as a hospital case, then what will we do? We will borrow. Because we don't have any money with us. We don't have any savings at all. That's how the world works. (49-year-old daily wage worker).

The respondents in Group IV maintain a neutral and mixed attitude towards borrowing, contingent upon one's capability to repay. They believe that loans offer benefits by fulfilling their needs but also bring disadvantages, primarily stemming from the stress of repayment. Consequently, in their view, borrowing is acceptable if

one has the means to repay the debt; otherwise, it should be avoided. They discussed both the advantages and disadvantages of loans, along with highlighting the inescapable inevitability of borrowing – as demonstrated in the following example:

> Repayment of loans is a stress [disadvantage of loans]. But to fulfil our needs, there is no other option than borrowing [the inescapable inevitability of borrowing]. Once the need is satisfied, we feel happy [advantages of loans]. But when we think about repayment, we feel tension as well [disadvantages of loans]. If we have the means to repay, taking a loan is not a problem. (42-year-old daily wage worker).

Only one interviewee expressed a favourable attitude towards borrowing, maintaining a view that needs should be met even if it means borrowing (Group V). Her opinion was as follows:

> There is nothing wrong with borrowing … We have to conduct the *"choroon"* [naming ceremony of a newborn] of my grandchild. Even if not in a very grand manner, we will have to conduct such events at least on a small scale. In such situations, we may have to borrow. (50-year-old unemployed widow).

Our analysis of the attitude toward borrowing yielded three plausible explanations for the limited influence of the attitudes towards debt on the actual amount of debt held by this group, as indicated by the results of the quantitative analysis.

First, despite having accumulated a significant amount of debt, many participants generally maintain an unfavourable view of borrowing. Even though they do not wish to borrow, they frequently find themselves compelled to borrow due to various

pressing circumstances. This finding implies that, regardless of their stated general debt attitudes, the debt accumulation of study participants is primarily driven by compulsion caused by structural constraints such as irregular income, inadequate wages or unemployment, unforeseen events like health shocks or natural disasters and societal/cultural factors such as social norms or community obligations. All households that were interviewed mentioned the occurrence of at least one unforeseen event and the impact of at least one structural factor that had worsened their household's financial hardship, driving them into their current state of excessive debt accumulation. Often, the absence of savings to act as a buffer against unexpected shocks places these households in a precarious situation, rendering them susceptible to a series of unforeseen events. This scenario highlights the disconnect between the general attitude towards debt and actual borrowing behaviour in the context of constrained choices.

Second, the debt attitude of this group is not static but rather transforms over time in response to their lived experiences. Some of our participants currently holding an overtly unfavourable general attitude towards borrowing mentioned that, although they once held a more favourable outlook on borrowing, their encounters with excessive debt burden prompted a change in perspective. Presently, they advocate minimising borrowing and living within one's means, as exemplified by the following comment.

> From my experience, I realised that borrowing cannot make our lives better. Earlier, I thought that if we got enough loans, we could make our lives more comfortable. We could make our lives more beautiful. We could satisfy many of our needs. If money is available, everyone will have some

needs, right? But now I understand that living within our means is better. With whatever little we have got. That will only make our life comfortable. That will help us to lead a happy life without any tension. Now, we are trapped in debt. We don't have any way to escape. That is why we are forced to take loans again and again. If God gives me a second chance to restart my life, I won't take any loans at all. I am fed up with loans. (45-year-old unemployed woman from a coastal community).

This possible cyclical relationship between debt attitude and debt accumulation was implied by Davies & Lea (1995), Haultain et al. (2010) and Livingstone & Lunt (1992), wherein they suggested that individuals, upon getting into debt, begin to acknowledge its benefits and often cultivate more pro-credit or tolerant debt attitudes. On the other hand, our findings indicate a likelihood of households that are deeply entrenched in debt developing an exceedingly unfavourable attitude towards debt. For instance, every interviewee belonging to Group I, characterised by an extremely negative debt attitude, mentioned such shifts in their perceptions - from a pro-debt attitude to an anti-debt attitude - due to their debt-related experiences. This attitude transformation might help explain the inconsistency between the present debt attitude and the current level of debt held by our target group. However, a better comprehension of the evolution of attitudes and the causality between attitude and actual debt behaviour relationship necessitates a longitudinal study, which is beyond the scope of our present research.

Third, debt accumulation among this group frequently arises as a cumulative outcome of multiple factors or events. Once these households fall into debt, the combined impact of these multiple factors forces them into a situation where they must manage

the repayment of one debt by incurring another. Often, loans with stringent repayment schedules, such as microfinance, are managed by taking on additional high-interest loans, leading to a cumulative addition of interest rates (Chichaibelu & Waibel, 2017). This situation results in a cycle of mounting loans, rendering their attitudes ineffective in controlling the amount of debt they accumulate once they start borrowing.

While recounting the financial stories of their households, 18 out of the 21 interview participants reported the occurrence of debt recycling that they had to undertake. Over one-third of these participants explicitly mentioned resorting to high-cost loans, such as those from money lenders, to manage their existing debts. They firmly believe that being compelled to rely on high-cost loans for debt management has significantly contributed to their current predicament of living ensnared in a debt trap. This point is illustrated by the following account of a family that confronted two successive shocks: unforeseen floods followed by an unexpected loss of regular salaried employment of a family member.

> As he [respondent's son] had enough income, we bought some furniture for the house in instalments … Wasn't there a flood in 2018? All the things in the house were damaged by water ... Then we thought that we would be able to pay the instalments with his salary and bought them. It was a huge mistake. A court order asked to fire some of the contract employees, and he lost his job. With that, we were unable to pay the instalments. After a couple of months, they [furniture shops] started calling and saying bad things. Then we borrowed from microfinance and paid them. Then to repay the microfinance loans, borrowed from moneylenders. Thus borrowed from

there and repaid here. And borrowed from here and repaid there. Doesn't the interest get accumulated? When we have to repay immediately, we cannot look at the interest, right? Then we take on whatever interest they suggest. (52-year-old daily wage worker)

VI.   Discussion and Policy Implications

This paper seeks to contribute to the existing literature on debt attitude-debt behaviour relationships by focusing on the rural poverty context of developing countries and employing a Q2 approach. Through the examination of both quantitative and qualitative data collected from Kerala, India, we endeavour to elucidate the role of debt attitudes in shaping variations in debt accumulation among rural poor households in a developing region. While caution should be exercised when extrapolating or generalising results from a limited geographic area, we believe that the findings of this paper offer valuable insights into the nuances of attitudes-behaviour relationships in real-life contexts of constrained choices.

Our quantitative analysis, derived from a survey conducted among 720 rural poor households in Kerala, indicates that the debt attitudes within this demographic are not unidimensional. Instead, they are better characterised by general and specific debt attitudes. We further distinguished between three types of loan arrangements within households: total outstanding loans, total instalment loans, and instalment loans from formal sources, in order to assess whether the debt attitudes have differentiated impacts on different loan arrangements. Employing Heckman's two-stage modelling, our analysis reveals that while the general debt attitude significantly influences whether a household has any outstanding loans or instalment loans, the debt attitudes

do not exhibit significant effects on the level of debt burden borne by these households, regardless of the form. This finding suggests that once a household incurs debt, the debt attitudes do not play a significant role in determining the actual amount of debt accumulated. Instead, the socio-economic characteristics of the households predominantly determine the extent of debt accumulation.

A considerable number of extant empirical studies find a positive association between debt attitude and the quantum of debt. However, most of these studies focus on consumer indebtedness or student debt; contexts markedly different from those of rural poor households in developing countries. On the contrary, our study noted a disconnect between the debt attitudes and the amount of debt accumulated by rural poor households in developing countries. Hence, in the second section of this paper, our focus was to reconcile this observed disconnect through qualitative analysis. For this purpose, we analysed in-depth interviews with 21 households identified from the survey, all of whom reported struggling with excessive debt burdens.

From this analysis, we observed that the attitude towards borrowing held by this group cannot be strictly characterised as binary - pro-debt or anti-debt. Instead, it is best viewed as a spectrum ranging from individuals harbouring a strong aversion to borrowing to those expressing favourable inclinations. A subset of respondents held mixed attitudes towards borrowing, recognising both the advantages and disadvantages of loans. Notably, a distinct group explicitly believes that their attitudes toward borrowing are irrelevant to their actual borrowing behaviours, which are instead influenced by the multifaceted constraints and practical challenges they encounter daily.

Through our qualitative analysis, we outline three plausible explanations for the attitude-behaviour disconnect concerning the magnitude of household indebtedness among the studied group. First, despite accumulating significant debt, this group generally maintains an unfavourable view of borrowing. Even though they do not wish to borrow, their debt accumulation is primarily driven by compulsion caused by structural constraints, such as irregular income, inadequate wages or unemployment and the consequent absence of savings, unforeseen events like health shocks or natural disasters, and societal/cultural factors such as social norms or community obligations. We even identified a distinct group who believe that their attitudes do not matter much; instead, their borrowing decisions are more about dealing with the various challenges and needs in their daily lives. This finding highlights the disconnect between general attitudes towards debt and actual borrowing behaviour in the context of constrained choices.

Sometimes, even their specific attitudes towards borrowing are shaped by the economic constraints they confront, their circumstances, and the existing societal pressure or cultural norms. This observation accords with that of Lea et al. (1993), who argue that while debt attitude may be viewed as an individual-level attribute, it is also influenced by social components. In line with Pauli & Dawids (2017) and Rao (2001), we also recognise that even celebrating life cycle events and incurring consequent debt – which is often regarded as emulative or conspicuous consumption - might not always be a matter of choice for poor people; it can also be driven by societal pressure.

Second, we observed a dynamic nature in the debt attitudes of this group, indicating a transformation over time in response to their real-life experiences. Some participants, currently expressing a general aversion towards borrowing, disclosed

that they once held a more favourable outlook on borrowing that subsequently changed due to their experiences with excessive debt burden. This attitude transformation might help to explain the inconsistency and lag between the present debt attitude and the current level of indebtedness borne by this group.

Third, once this group enters into debt, their subsequent reliance on high-interest loans for managing existing debts perpetuates a cycle of debt accumulation. This cycle blurs the distinction between antecedents and consequences of debt, as highlighted by Lea (2021) and Lea et al. (1995), rendering their attitudes ineffective in controlling the quantum of debt they accumulate thereafter.

From a policy standpoint, our findings suggest that initiatives aimed at influencing the debt attitudes of this group could be instrumental in deterring them from entering into debt in the first place, even though it may have a limited impact on the subsequent accumulation of debt. Therefore, implementing awareness programmes focused on enhancing household financial management skills and promoting financial literacy could dissuade this group from unnecessary reliance on loans. Moreover, education regarding the importance of maintaining a household budget might further contribute to the goal of minimising their inclination towards borrowing.

Similar to the situation in other developing countries, our study respondents grapple with numerous structural constraints in their daily lives. Therefore, the effectiveness of programmes aimed at altering debt attitudes may be limited unless the underlying issues compelling them to resort to loans are addressed. Consequently, tackling the issue of excessive accumulation of household debt among rural poor households in developing countries, who face multiple vulnerabilities requires a comprehensive

restructuring of government policies to address the root structural issues. In this context, our perspective aligns with that of Lea (2021), Lea et al. (1995) and Walker et al. (2015), where the authors argue that the overall level of debt in society is profoundly shaped by the extent of economic inequality and social insecurity. They contend that no psychological factor can effectively prevent the issue of excessive indebtedness without addressing the underlying socioeconomic disadvantage and the profound impact of poverty.

We, therefore, advocate the formulation of new policies and reinforcing existing programmes to ensure a minimum number of jobs and guaranteed basic income. Specifically in the context of India, it is significant to strengthen the existing rural employment guarantee programme, the Mahatma Gandhi Rural Employment Guarantee Scheme (MGNREGS), by enhancing budget allocations and increasing the number of guaranteed job days. This becomes even more crucial considering the substantial reduction in budget allocation for the programme observed in the past year. We also recommend extending legal coverage of minimum wage to encompass all workers, more effective enforcement of minimum wage laws and the periodic adjustments of minimum wages linking them with inflation. Additionally, prioritising the capacity building of this group, considering local peculiarities and market needs, is essential to enhance their employability and encourage their engagement in income-generating activities. We also suggest reinforcing the social safety net, including health insurance, to safeguard these households from unforeseen shocks and mitigate the need for emergency borrowing.

Further, emphasis should be placed on removing barriers to savings faced by this demographic (George et al., 2018). By implementing schemes that encourage regular

small savings, this group can be empowered to build up at least modest savings, creating a financial cushion for emergencies. Establishing local-level savings and credit groups under government supervision, akin to the *Kudumbashree*[11] programme in Kerala, could present a viable option in this regard.

Regulating and restricting the activities of high-cost moneylenders and unregistered financial entities in the rural credit market is critical for mitigating the issue of spiralling debt accumulation caused by the cycle of debt recycling through high-interest loans. Developing robust decentralised enforcement mechanisms is essential to prevent predatory lending practices and ensure the adherence of all credit-providing entities to existing regulations and guidelines. Nevertheless, such regulatory measures should be complemented by the provision of alternative and affordable credit options for this demographic. In this regard, the cooperative credit networks in India, already robust in many regions, can be further strengthened to enhance the accessibility of affordable credit sources for this population.

VII.   Limitations and Suggestions for Future Research

Certain limitations in the current study are worthy of consideration. First, our quantitative analysis demonstrates the predictive capacity of general debt attitudes in conjunction with socio-economic characteristics to determine whether rural poor households in developing countries carry outstanding debts. However, it falls short of exploring the potential interplay between socio-economic factors and debt attitudes, which may influence a household's indebtedness status. Future research may investigate interactions between socio-economic factors and general debt attitude to better understand their combined impact on household indebtedness.

Second, while our qualitative analysis provides an indication of the dynamic nature of attitudes in response to debt accumulation, the cross-sectional nature of our data prevents us from quantitatively verifying this observation. Future studies employing longitudinal data could allow for a more rigorous examination of the interplay between debt accumulation and attitudes over time.

Third, during in-depth interviews, participants were asked an overarching question about their opinions on borrowing, and later in the analysis stage, efforts were made to disentangle their general and specific attitudes from these opinions. However, this approach posed certain challenges as these attitudes were often intertwined. We, therefore, recommend that future research incorporate more nuanced follow-up questions to enrich the qualitative understanding of the specific debt attitudes of this group, particularly concerning various types of situations.

References

Abdul-Muhmin, A. G. (2008). Consumer attitudes towards debt in an Islamic country: Managing a conflict between religious tradition. *International Journal of Consumer Studies, 32*(3), 194–203. doi:10.1111/j.1470-6431.2008.00665.x.

Achtziger, A. (2022). Overspending, debt, and poverty. *Current Opinion in Psychology, 46*. doi:10.1016/j.copsyc.2022.101342.

Achtziger, A., Hubert, M., Kenning, P., Raab, G., & Reisch, L. (2015). Debt out of control: The links between self-control, compulsive buying, and real debts. *Journal of Economic Psychology, 49*(C), 141-149. doi:10.1016/j.joep.2015.04.003.

Agarwal, S., Chomsisengphet, S., & Liu, C. (2011). Consumer bankruptcy and default: The role of individual social capital. *Journal of Economic Psychology, 32*(4), 632-650. doi:10.1016/j.joep.2010.11.007.

Ajzen, I. (1996). The social psychology of decision making. In A. W. Kruglanski, & E. T. Higgins, *Social psychology: Handbook of basic principles* (pp. 297-325). New York: The Guilford Press.

Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin, 84*(5), 888-918. doi:10.1037/0033-2909.84.5.888.

Almenberg, J., Lusardi, A., Säve-Söderbergh, J., & Vestman, R. (2018). *Attitudes towards debt and debt behaviour.* Cambridge: National Bureau of Economic Research.

Anderloni, L., & Vandone, D. (2008). *Household over-indebtedness in the economic literature.* Department of Economics, Business and Statistics,. Milan: State University of Milan.

Bauer, M., Chytilová, J., & Morduch, J. (2012). Behavioral foundations of microcredit: Experimental and survey evidence from rural India. *The American Economic Review, 102*(2), 1118-1139. doi:10.1257/aer.102.2.1118.

Bechler, C. J., Tormala, Z. L., & Rucker, D. D. (2021). The attitude–behavior relationship revisited. *Psychological Science, 32*(8), 1285–1297. doi:10.1177/095679762199520.

Białowolski, P., Cwynar, A., Cwynar, W., & Węziak-Białowolska, D. (2020). Consumer debt attitudes: The role of gender, debt knowledge and skills. *International Journal of Consumer Studies, 44*(3), 191–205. doi:10.1111/ijcs.12558.

Boddington, L., & Kemp, S. (1999). Student debt, attitudes towards debt, impulsive buying and financial management. *New Zealand Journal of Psychology, 28*(2), 89-93.

Borsa, J. C., Damásio, B. F., & Bandeira, D. R. (2012). Cross-cultural adaptation and validation of psychological instruments: Some considerations. *Paidéia, 22*(53), 423-432. doi:10.1590/S0103-863X2012000300014.

Brown, S., Garino, G., & Taylor, K. (2013). Household debt and attitudes towards risk. *Review of Income and Wealth, 59*(2), 283-304. doi:10.1111/j.1475-4991.2012.00506.x.

Chand, R., Srivastava, S. K., & Singh, J. (2017). *Changing structure of rural economy of India: Implications for employment and growth.* New Delhi: NITI Aayog.

Chichaibelu, B., & Waibel, H. (2017). Borrowing from ''Pui'' to Pay ''Pom'': Multiple Borrowing and Over-Indebtedness in Rural Thailand. *World Development, 98*, 338-350. doi:10.1016/j.worlddev.2017.04.032.

Chien, Y. W., & Devaney, S. A. (2001). The effects of credit attitude and socioeconomic factors on credit card and installment debt. *The Journal of Consumer Affairs, 35*(1), 162-179.

Collins, D., Morduch, J., Rutherford, S., & Ruthven, O. (2009). *Portfolios of the Poor.* Princeton: Princeton University Press.

Cooper, C. R., Mullins , M., & Weinstock , L. R. (2021). *COVID-19: Household debt during the pandemic.* Washington D.C.: Congressional Research Service.

Davies, E., & Lea, S. E. (1995). Student attitudes to student debt. *Journal of Economic Psychology, 16*(4), 663-679.

Davies, S., Finney, A., Collard, S., & Trend, L. (2019). *Borrowing behaviour: A systematic review.* Bristol: University of Bristol.

de Matos, C. A., Vieira, V., Bonfanti, K., & Mette, F. M. (2019). Antecedents of indebtedness for low-income consumers: The mediating role of materialism. *Journal of Consumer Marketing, 36*(1), 92–101. doi:10.1108/JCM-09-2017-2352.

Demirgüç-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2021). *The global findex database 2021: Financial inclusion, digital payments, and resilience in the age of COVID-19.* Washington D.C.: World Bank Group.

Disney, R., & Gathergood, J. (2011). *Financial literacy and indebtedness: New evidence for UK consumers.* Nottingham: University of Nottingham.

Donnelly, G., Iyer, R., & Howel, R. T. (2012). The Big Five personality traits, material values, and financial well-being of self-described money managers. *Journal of Economic Psychology, 33*(6), 1129–1142. doi:10.1016/j.joep.2012.08.001.

Fenton, A., Paavola, J., & Tallontire, A. (2017). The role of microfinance in household livelihood adaptation in Satkhira District, Southwest Bangladesh. *World Development, 92*(C), 192–202. doi:10.1016/j.worlddev.2016.12.004.

Flores, S. A., & Vieira, K. M. (2014). Propensity toward indebtedness: An analysis using behavioral factors. *Journal of Behavioral and Experimental Finance, 3*. doi:10.1016/j.jbef.2014.05.001.

Frigerio, M., Ottaviani, C., & Vandone, D. (2020). A meta-analytic investigation of consumer over-indebtedness: The role of impulsivity. *International Journal of Consumer Studies, 44*(4), 328-342. doi:10.1111/ijcs.12570.

Garðarsdóttir, R. B., & Dittmar, H. (2012). The relationship of materialism to debt and financial well-being: The case of Iceland's perceived prosperity. *Journal of Economic Psychology, 33*(3), 471-481. doi:10.1016/j.joep.2011.12.008.

George, E. E., Hansen, M. E., & Routzahn, J. L. (2018). Debt tolerance, gender and the great recession. *The Journal of Consumer Affairs, 52*(3), 711-732. doi:10.1111/joca.12184.

Gjersing, L., Caplehorn, J. R., & Clausen, T. (2010). Cross-cultural adaptation of research instruments: Language, setting, time and statistical considerations. *BMC Medical Research Methodology, 10*(13). doi:10.1186/1471-2288-10-13.

Goel, A., & Rastogi, S. (2021). Understanding the impact of borrowers' behavioural and psychological traits on credit default: Review and conceptual model. *Review of Behavioral Finance, 15*(2), 205-223. doi:10.1108/RBF-03-2021-0051.

Gross, S. J., & Niman, C. M. (1975). Attitude-behavior consistency: A review. *Public Opinion Quarterly, 39*(3), 358–368. doi:10.1086/268234.

Guerin, I., Roesch, M., Venkatasubramanian, G., & D'espallier, B. (2012). Credit from whom and for what? The diversity of borrowing sources and uses in rural Southern India. *Journal of International Development, 24*(7), S122–S137. doi:10.1002/jid.1785.

Hair, J., Anderson, R., Babin, B., & Black, W. (2018). *Multivariate data analysis*. Harlow: Pearson Education Limited.

Hair, J., Hult, T., Ringle, C., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Thousand Oaks, CA: Sage Publications, Inc.

Harrison, N., Agnew, S., & Serido, J. (2015). Attitudes to debt among indebted undergraduates: A cross-national exploratory factor analysis. *Journal of Economic Psychology, 46*, 62-73. doi:10.1016/j.joep.2014.11.005.

Haultain, S., Kemp, S., & Chernyshenko, O. S. (2010). The structure of attitudes to student debt. *Journal of Economic Psychology, 31*(3), 322–330. doi:10.1016/j.joep.2010.01.003.

Hedrih, V. (2020). *Adapting psychological tests and measurement instruments for cross-cultural research: An introduction.* New York: Routledge.

IMF. (2017). *Global financial stability report: Is growth at risk?* Washington DC.: International Monetary Fund.

IMF. (2022). *2022 Global debt monitor.* Fiscal Affairs Department. Washington DC: International Monetary Fund.

Kaiser, F. G., & Schultz, P. W. (2009). The attitude–behavior relationship: A test of three models of the moderating role of behavioral difficulty. *Journal of Applied Social Psychology, 39*(1), 186–207. doi:10.1111/j.1559-1816.2008.00435.x.

Kaur, J., & Arora, S. (2019). Indian students' attitude toward educational debt: Scale development and validation. *Quality Assurance in Education, 27*(4), 361-383. doi:10.1108/QAE-12-2018-0131.

Keese, M. (2012). Who feels constrained by high debt burdens? Subjective vs. objective measures of household debt. *Journal of Economic Psychology, 33*(1), 125-141. doi:10.1016/j.joep.2011.08.002.

Kim, H., & Devaney, S. A. (2001). The determinants of outstanding balances among credit card revolvers. *Journal of Financial Counseling and Planning, 12*(1), 67-78.

Klärner, A., & Knabe, A. (2019). Social networks and coping with poverty in rural areas. *Sociologia Ruralis, 59*, 447-473. doi:10.1111/soru.12250.

Krishna, A. (2004). Escaping poverty and becoming poor: Who gains, who loses, and why? *World Development, 32*(1), 121–136. doi:10.1016/j.worlddev.2003.08.002.

Kurowski, Ł. (2021). Household's overindebtedness during the COVID-19 Crisis: The role of debt and financial literacy. *Risks, 9*(4). doi:10.3390/risks9040062.

Lea, S. E. (2021). Debt and overindebtedness: Psychological evidence and its policy implications. *Social Issues and Policy Review, 15*(1), 146-179. doi:10.1111/sipr.12074.

Lea, S. E., Webley, P., & Levine, R. M. (1993). The economic psychology of consumer debt. *Journal of Economic Psychology, 14*(1), 85-119. doi:10.1016/0167-4870(93)90041-I.

Lea, S. E., Webley, P., & Walker, C. M. (1995). Psychological factors in consumer debt: Money management, economic socialization, and credit use. *Journal of Economic Psychology, 16*(4), 681-701. doi:10.1016/0167-4870(95)00013-4.

Lebdaoui, H., & Chetioui, Y. (2021). Antecedents of consumer indebtedness in a majority-Muslim country: Assessing the moderating effects of gender and religiosity using PLS-MGA. *Journal of Behavioral and Experimental Finance, 29*(9). doi:10.1016/j.jbef.2020.100443.

Livingstone, S. M., & Lunt, P. K. (1992). Predicting personal and debt repayment: Psychological, social and economic determinants. *Journal of Economic Psychology, 13*(1), 111-134. doi:10.1016/0167-4870(92)90055-C.

Loibl, C., Letkiewicz, J., McNair, S., Summers, B., & de Bruin, W. B. (2021). On the association of debt attitudes with socioeconomic characteristics and financial behaviours. *The Journal of Consumer Affairs, 55*(3), 939–966. doi:10.1111/joca.12384.

Lubbers, M. J., Small, M. L., & GarcÍa, H. V. (2020). Do networks help people to manage poverty? Perspectives from the field. *The Annals of the American Academy, 689*(1). doi:10.1177/0002716220923959.

Lusardi, A., & Tufano, P. (2015). Debt literacy, financial experiences and over-indebtedness. *Cambridge University Press, 14*(4), 332-368. doi:10.1017/S1474747215000232.

Mewse, A. J., Lea, S. E., & Wrapson, W. (2010). First steps out of debt: Attitudes and social identity as predictors. *Journal of Economic Psychology, 31*(6), 1021–1034. doi:10.1016/j.joep.2010.08.009.

NABARD. (2018). *NABARD All India Rural Financial Inclusion Survey 2016-17.* Mumbai: NABARD.

Norvilitis, J. M., Szablicki, P. B., & Wilson, S. D. (2003). Factors influencing levels of credit-card debt in college students. *Journal of Applied Social Psychology, 33*(5), 935-947. doi:10.1111/j.1559-1816.2003.tb01932.x.

NSO. (2019). *All India debt and investment survey.* New Delhi: National Statistical Office.

NSSO. (2023). *Periodic labour force survey (July 2022- June 2023).* Ministry of Statistics and Programme Implementation. New Delhi: Government of India.

Ottaviani, C., & Vandone, D. (2011). Impulsivity and household indebtedness: Evidence from real life. *Journal of Economic Psychology, 32*(5), 754–761. doi:10.1016/j.joep.2011.05.002.

Parker, B., & Kozel, V. (2007). Understanding poverty and vulnerability in India's Uttar Pradesh and Bihar: A Q-squared approach. *World Development, 35*(2), 296-311. doi:10.1016/j.worlddev.2005.10.020.

Ponchio, M. C., & Aranha, F. (2008). Materialism as a predictor variable of low income consumer behaviour when entering into instalment plan agreements. *Journal of Consumer Behaviour, 7*(1), 21–34. doi:10.1002/cb.234.

PRAKARSA. (2020). *The risk of over-indebtedness amid COVID-19 pandemic.* Indonesia: PRAKARSA.

PTI. (2014, November 14). *Financial inclusion agenda: All households in Kerala, Goa get bank accounts.* Retrieved December 21, 2022 from The Hindu: https://www.thehindu.com/business/Financial-inclusion-agenda-all-households-in-Kerala-Goa-get-bank-accounts/article60318484.ece.

Pauli, J., & Dawids, F. (2017). The struggle for marriage: Elite and non-elite weddings in rural Namibia. *Anthropology Southern Africa, 40*(1), 15-28. doi:10.1080/23323256.2016.1237296.

Ranyard, R., Mchugh, S., & Mcnair, S. (2017). The psychology of borrowing and over-indebtedness. In R. Ranyard, *Economic Psychology* (pp. 223-238). New Jersey: Wiley-Blackwel.

Rao, V. (2001). Poverty and public celebrations in rural India. *The Annals of the American Academy of Political and Social Science, 573*(1), 85-104.

Raykov, T. (2007). Reliability if deleted, not 'alpha if deleted': Evaluation of scale reliability following component deletion. *British Journal of Mathematical and Statistical Psychology*, *60*(2), 201-216. doi:10.1348/000711006X115954.

Rockenbauch, T., & Sakdapolrak , P. (2017). Social networks and the resilience of rural communities in the Global South: A critical review and conceptual reflections. *Ecology and Society, 22*(1). doi:10.5751/ES-09009-220110.

Roedder, D. L., Sternthal, B., & Calder, B. J. (1983). Attitude-behavior consistency in

    children's responses. *Journal of Marketing Research, 20*(4), 337-349.

    doi:10.2307/3151438.

Schicks, J. (2014). Over-indebtedness in microfinance – An empirical analysis of related

    factors on the borrower level. *World Development, 54*, 301–324.

    doi:10.1016/j.worlddev.2013.08.009.

Shaffer, P. (2013). *Q-squared: Combining quantitative and qualitative approaches in poverty*

    analysis. Oxford: Oxford University Press.

The Indian Express. (2014, November 15). *Two states, three UTs achieve 100% inclusion in Jan*

    Dhan. Retrieved December 21, 2022 from The Indian Express:

    https://indianexpress.com/article/business/business-others/two-states-three-uts-

    achieve-100-inclusion-in-jan-dhan/.

Tiftik, E., & Guardia, P. D. (2020). *COVID-19 exacerbates household debt burdens.* Washington

    D.C.: Institute of International Finance.

Townsend, R. M. (1994). Risk and insurance in village India. *Econometrica, 62*(3), 539-591.

    doi:10.2307/2951659.

United Nations. (2019). *World urbanization prospects.* Department of Economic and Social

    Affairs Population Division. New York: United Nations.

Wadhwa, P. (2021, June 8). *Global debt rises $32 trillion in 2020 amid Covid pandemic: Moody's.*

    Retrieved November 3, 2022, from Business Standard: https://www.business-

    standard.com/article/international/global-debt-rises-32-trillion-in-2020-amid-covid-

    pandemic-moody-s-121060800412_1.html.

Walker, C. M. (1996). Financial management, coping and debt in households under financial strain. *Journal of Economic Psychology, 17*(6), 789-807. doi:10.1016/S0167-4870(96)00036-0.

Walker, C., Burton, M., Akhurst, J., & Degirmencioglu, S. M. (2015). Locked into the system? Critical community psychology approaches to personal debt in the context of crises of capital accumulation. *Journal of Community & Applied Social Psychology, 25*, 264–275. doi:10.1002/casp.2209.

Wang, L., Lu, W., & Malhotra, N. K. (2011). Demographics, attitude, personality and credit card features correlate with credit card debt: A view from China. *Journal of Economic Psychology, 32*(1), 179–193. doi:10.1016/j.joep.2010.11.006.

Webley, P., & Nyhus, E. K. (2001). Life-cycle and dispositional routes into problem debt. *British Journal of Psychology, 92*(3), 423–446. doi:10.1348/000712601162275.

Woldehanna, T., Tafere, Y., & Yonis, M. B. (2022). Social capital as a double-edged sword for sustained poverty escapes in Ethiopia. *World Development, 158*(C). doi:10.1016/j.worlddev.2022.105969.

Zhu, L. Y., & Meeks, C. B. (1994). Effects of low income families' ability and willingness to use consumer credit on subsequent outstanding credit balances. *The Journal of Consumer Affairs, 28*(2), 403-422. doi:10.1111/j.1745-6606.1994.tb00859.x.

[1] Two recent systematic reviews observed a significant dearth of research on the influence of individual-level attitudinal traits on indebtedness in the context of developing countries (Lea, 2021), particularly in Asian settings (Goel & Rastogi, 2021).

[2] As per the latest official data, 80% of non-agricultural sector workers in rural India are engaged in informal sector enterprises, without any formal job contracts or social security benefits (NSSO, 2023). Only 14 per cent of rural workers hold regular wage/salaried jobs, in stark contrast to the 48% observed in urban India. The average daily earnings for casual labour in rural India stand at INR 388 (approximately $4.6). Even this modest income is further compounded by its uncertainty, owing to the absence of regular job opportunities, placing this group in precarious situations during emergencies.

[3] The credit market in rural India continues to be significantly influenced by informal credit sources, with 41 per cent of indebted households relying on non-institutional credit sources (NABARD, 2018). Additionally, more than one-third of the total outstanding debt is sourced from non-institutional sources (NSO, 2019).

[4] Household incidence of indebtedness is 55% in rural Kerala and 49% in urban Kerala, while all India average is 35% and 22% respectively (NSO, 2019).

[5] In 2014, the Government of India declared Kerala and Goa as the first states in the country achieving 100 per cent financial inclusion with every household having at least one bank account (see PTI, 2014; The Indian Express, 2014),

[6] Administratively, Kerala is divided into 14 districts, and the rural regions of each district is further divided into 941 local administrative units known as Grama Panchayats. We followed the following steps to identify the sample households:

> Step 1: The 14 districts were ranked in descending order based on the proportion of low-income households. Using a systematic random sampling method, three districts were selected from the ranked list.

Step 2: Within each selected district, the Grama Panchayats were arranged in descending order based on the proportion of low-income households. From each district, three Grama Panchayats were chosen using a systematic random sampling method.

Step 3: From each selected Grama Panchayat, a sample of 85 low-income households was randomly chosen for the survey.

[7] Currently, there are four types of PDS cards in Kerala—yellow, pink, blue and white each with different benefits. Of these, yellow and pink cards are given to the most deprived sections of the society, covering around 42 per cent of the total households in the state. We selected the households holding yellow and pink cards as our respondents.

[8] It is pertinent to take this context into account when interpreting the effect of monthly household income. As the majority of these households lack a fixed income, their monthly income was computed by aggregating the individual incomes reported for each household member in a "normal month", along with any additional income received by the household from other sources. A "normal month" is defined as a month in which a household member has sufficient job opportunities. Due to the unpredictability and irregularity of job availability in the rural labour market, not every member may receive their reported income every month. Therefore, these self-reported figures of monthly household income may present a relatively optimistic view of the sampled households and do not capture the wide variations in income experienced by these households each month.

[9] Population in India is officially classified into four groups based on their social positioning considering historical, socio-economic and educational factors; scheduled castes (SCs), scheduled tribes (STs), other backward castes (OBCs) and general. SCs and STs are constitutionally recognised as the most disadvantaged social groups in India, who have historically faced severe social discrimination and oppression. To address the historical injustices, they are granted special constitutional protections and reservation benefits under the Indian legal system. OBC is a collective term used to denote educationally and socially backward communities. Although OBC communities are eligible for reservation in educational institutions and government jobs, they do not receive the same level of social and legal protection as SCs and STs. The general category includes the social groups that do not fall

into the SC/ST/OBC categories. These communities have historically been considered privileged in terms of opportunities, wealth and education.

[10] The traditional coir industry of Kerala, where the respondent used to work, was once a significant source of employment for many low-income households in the southern coastal regions of the state. However, lately, the industry has been on the decline due to a combination of factors, such as a decrease in the availability of inputs, a subsequent increase in the price of raw materials, and a lack of market for the final products. This situation has led to unemployment among the respondent and other households in the region.

[11] *Kudumbashree* (translated as prosperity to the family) is a unique poverty eradication and women empowerment initiative of the Kerala state government launched in 1998. The programme envisages the socio-economic empowerment of women through microfinance and entrepreneurial developmental activities.

Declaration of Generative AI and AI-Assisted Technologies in the Writing Process

During the preparation of this work, the authors used ChatGPT 3.5 in order to enhance the readability and language. After using this tool/service, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

Funding

Declarations of Interest

None

Annexure I

Construct	Indicator
Debt Attitude Scale	1. Taking loans would help us make our lives more comfortable.
	2. There is nothing wrong in buying home appliances in instalments if we don't have money to pay the entire amount together.
	3. Taking a loan is not at all a good thing. ®
	4. Credit is an essential part of today's lifestyle.
	5. One should gift new dresses to family members for festivities like Onam, Ramzan and Christmas, even by taking a loan.
	6. It is better to starve than to borrow money for food. ®
	7. We should live within our income. ®
	8. Even on a low income, one should save a little every month. ®
	9. Borrowed money should be repaid as soon as possible. ®
	10. Taking a loan, even for medical purposes, is not right. ®
	11. There is nothing wrong in celebrating events like marriage and childbirth, even if by taking loans.
	12. It is OK to borrow money to repay an earlier debt.
	13. It is OK to have debt if you know you can pay it off.
	14. Borrowing money to build or buy a house is never a good idea. ®
Debt Literacy Scale	1. You owe Rs. 100 from your neighbour for an interest rate of 10% per year. If you haven't paid anything off, how much money should you pay back after one year?
	2. Suppose you owe Rs. 100 to your friend for a monthly interest rate of 1%. What is the annual interest rate?
	3. Suppose you need a loan of Rs. 1000. You have two sources of immediate credit, a private lender and a private financing company. The private lender charges Rs. 5 per day for a sum of Rs. 100 borrowed. The private financing

company charges 100 per cent interest per month. Which is the better choice

for you?