Financial Literacy and Its Impact on Loan Repayment Decisions: Evidence from Rural Households in Sri Lanka

N.P. Ravindra Deyshappriya[1], Nipuni Fernando[2] and K.M. Nalika Jeewanthi[3]

Abstract

The study examines the impact of financial literacy on loan repayment decisions of rural sector households in Uva Province of Sri Lanka. Data were collected from 975 households located in 10 Divisional Secretariats (DS) in both Badulla and Monaragala districts. Probit Regression Analysis was employed to analyse the collected data and the analysis confirms that higher financial literacy increases the probability of paying back the loans of the rural households. Apart from that, the study finds that there is a non-linear relationship between age and loan repayment decisions, while factors such as being married, receiving remittances, being non-disabled and the debt to income ratio also significantly affect loan repayment decisions of rural households in Sri Lanka. Consequently, the study strongly recommends improving the financial literacy of rural households in Sri Lanka, by arranging appropriate training and educational programmes, with the impact of such programmes helping to stabilise the financial system.

JEL Classifications: D12, D14, G21, G23
Keywords: Financial Literacy, Loan Repayment, Rural Sector, Probit Regression

1. Introduction

The financial sector has been recognised as a crucial sector in any economy, as it enhances both economic growth and development, especially through job creation and poverty alleviation. Additionally, financial institutions contribute to sustainable development by providing credit to individuals and businesses for their investment purposes, while engaging in Corporate Social Responsibility (CSR) initiatives (Sethi and Sethy 2018; Baidoo and Akoto 2019). Despite these significant contributions, the financial sector faces multiple challenges that limit its ability to promote economic growth and sustainable development. Among these challenges, loan repayment decisions have been identified as a critical issue that influences the growth and development of the financial system (Asiama and Amoah 2019; Baidoo *et al* 2020).

Sri Lanka, a lower-middle-income country, has a GDP per capita of USD 3815 and a total population of 22,156,000 people residing in a land area of 65610 km^2 (Central Bank Report of Sri Lanka 2021). The World Bank data indicates that 81 per cent of the country's population lives in rural areas, and a relatively high percentage of the population are just above the poverty line. While Sri Lanka boasts a high literacy rate (92.9 per cent in 2022) within the South Asian region, the country's financial literacy rate remains unsatisfactory, particularly in rural areas compared to urban areas. Consequently, Sri Lanka experiences a significant disparity between its literacy rate and financial literacy, which is defined as a combination of financial knowledge, skills, attitudes, and behaviours necessary to make sound financial decisions and ultimately achieve individual financial well-being (OECD 2018). The lower financial literacy essentially reduces financial inclusion in the country as well (Kumari *et al* 2020).

According to a financial literacy survey conducted by the Central Bank of Sri Lanka in collaboration with the International Finance Corporation (a member of the World Bank Group), the financial literacy rate in Sri Lanka was reported to be 57.9 per cent in 2021. This indicates a significant improvement of 23 per cent compared to the previous year (Moorthy 2022). However, the survey also highlighted that the financial literacy rate is lower in rural areas compared to other regions of the country. Furthermore, it was found that young adults tend to have higher levels of financial literacy compared to the elderly population. Empirical studies have also revealed that individuals in rural and underprivileged areas of Sri Lanka exhibit limited responsiveness when it comes to accessing financial services. This is primarily attributed to their lack of awareness and knowledge about finance and financial products (Kumari *et al* 2020).

Loan non-repayment, often associated with loan default, is a concerning issue in the existing literature, given its negative impact on financial institutions, individuals, entrepreneurs, and the overall economy (Amuakwa-Mensah *et al* 2017; Netzer *et al* 2019). Recent findings from the Credit Supply Survey conducted by the Central Bank of Sri Lanka in 2022 indicate a decline in the willingness of financial institutions to lend and a decrease in the demand for loans in the country. This trend can be attributed to the increase in non-performing loans. The report also highlights that rising expenditures among households and firms have strained the debt repayment capacity of the population (Central Bank Report 2022). These findings clearly demonstrate a significant increase in non-performing loans in Sri Lanka, ultimately leading to loan defaults that impact significantly the viability and profitability of financial institutions. Given the severity of loan defaults and the importance of financial literacy, it is crucial for decision-makers and participants in the financial sector to implement adequate strategies and policies aimed at enhancing loan repayment.

Financial literacy has received vital attention by researchers and also by national policy framework in countries around the world, based on its role and

contribution towards inclusive growth and economic development. Scholars have identified that the people who have higher levels of financial literacy tend to make more sensible and rational decisions on borrowing, savings, financial transactions, make sustainable investment decisions, and make efficient retirement plans. Furthermore, this helps them to ensure their financial wellbeing in the different stages of their lives (Taft *et al* 2013; Hamid and Loke 2021).

Moreover, financial literacy has been identified as a significant contributor for the development of financial inclusion of the country, which ultimately impacts on the stability of the financial system that eventually sets the path for economic stability as well. Hence, most developing countries have included financial literacy in their development agendas (Hamid and Loke 2021). In the context of Sri Lanka, the financial literacy of the population is low as in many developing nations around the world. Moreover, these findings and the level of financial literacy vary across ethnicity groups and geographical locations. Consequently, the levels of financial knowledge of rural areas are lower than urban areas.

The majority of the existing literature focuses on identifying the relationship between financial literacy and credit card debt (Norvilitis *et al* 2006; Robb 2011; Shen 2014), debt, stock market participation (Van Rooij *et al* 2011;Sivaramakrishnan *et al* 2017), entrepreneurship (Abubakar 2015; Abad-Segura and González-Zamar 2019; Calcagno *et al* 2020), poverty (Xu *et al* 2021; Koomson *et al* 2022). But there is very limited attention on assessing the impact of financial literacy on the loan repayment decisions of rural households in developing countries. Hence, this study has two main contributions; firstly, the study develops a financial literacy index considering three key dimensions; and, secondly, the study quantifies empirically the impact of financial literacy on the loan repayment decisions of rural households in Sri Lanka. allowing policy makers to re-think the significance of financial literacy especially in rural and marginalised locations.

The remainder of the paper focuses on literature review where the previous body of knowledge is critically reviewed, followed by the methodology of the study. After that, the results of the study have been elaborated while next section has been allocated for conclusions and recommendations.

2. Literature Review

Financial literacy refers to the ability to understand and effectively utilise various monetary skills, including individual financial management, investing, and budgeting (Fernando 2022). It plays a crucial role in empowering individuals to make informed financial decisions, leading to wealth creation and prudent utilisation of available financial products.

Financial literacy has emerged as a critical factor influencing individuals' decisions, especially in the realm of loan repayment. A comprehensive grasp of financial concepts empowers individuals to make informed choices, notably

regarding borrowing and debt servicing (Lusardi and Tufano 2009). Higher levels of financial literacy have been associated with responsible financial behaviours, such as timely loan repayments (Lusardi and Mitchell 2007). Understanding loan terms, interest rates, and repayment schedules enhances borrowers' capacity to manage their financial obligations effectively. The confidence and control fostered by financial literacy contribute to a reduced likelihood of loan default (Lusardi and Mitchell 2011).

Empirical evidence further substantiates the impact of financial literacy on loan repayment decisions. Studies consistently demonstrate a positive correlation between financial literacy and loan repayment behaviour. Cole and Shastry's (2009) research found that individuals with higher financial literacy levels were less prone to default on mortgage payments. This relationship is particularly salient in the context of student loans, where borrower comprehension of loan terms and repayment options significantly influences their ability to meet repayment obligations (Dynarski and Scott-Clayton 2006). Other studies confirm this relationship in diverse lending contexts, highlighting the universal relevance of financial literacy in loan repayment dynamics (Van Rooij *et al* 2011; Gathergood 2012; Agarwal and Mazumder 2013; Lührmann *et al* 2015).

Agarwal (2007) conducted a study focusing on the impact of mandatory financial literacy programmes on the loan repayment performance of female microfinance customers in urban India. The study found a significant link between financial literacy programmes and improved loan repayment performance. Similarly, Agarwalla's (2015) study explored the impact of various socio-demographic factors on different dimensions of financial literacy, including attitudes, behaviours, and knowledge. The study revealed that factors such as joint families, decision-making through counselling, education, gender, and income had a significant influence on financial literacy. The study also highlighted poor financial behaviour among younger respondents, indicating a lack of self-control in financial management skills.

Ansong and Gyensare (2012) examined the factors influencing financial literacy among graduate working college students and 250 undergraduates in Ghana. The study identified that the educational level of the students' mothers, work experience, and age were positively correlated with financial literacy. However, factors such as the place of work, level of study, educational level of the interviewee's father, access to the media, and the source of financial education did not significantly affect financial literacy. These studies collectively emphasise the importance of financial literacy in enabling individuals to make informed financial decisions and manage their resources effectively, while also highlighting the role of various socio-demographic factors in shaping financial literacy levels.

Numerous empirical studies have underscored the relationship between financial literacy and loan repayment, highlighting its importance in ensuring timely repayment. For instance, studies conducted in Nigeria by Nyamboga

et al (2014), Kenya by Mutegi *et al* (2015) and Wanjiku and Muduri (2015), and Rwanda by Gaudence *et al* (2018) have consistently demonstrated that individuals with higher levels of financial literacy are more likely to repay their loans promptly, thereby reducing delays in repayment.

Studies by Firafis (2015) and Abu *et al* (2017) have revealed a positive correlation between the size of the household and loan repayment. They argue that larger households benefit from additional sources of income, as additional employed family members contribute to the revenue available for loan repayment. Conversely, studies by Pasha and Negese (2014) and Enimu *et al* (2017) have found an inverse correlation between household size and loan repayment. Their argument suggests that larger households allocate a higher proportion of their income to consumption, which may diminish their ability to repay loans. Similarly, studies by Acqua and Addo (2011), Aunio-Vitor (2012), Wongnaa and Awunyo-Vitor (2013) , Abu *et al* (2017) and Enim *et al* (2017) have indicated a positive relationship between income, high profits, and loan repayment. These studies suggest that individuals with higher income are more likely to successfully meet their loan repayment obligations.

Thus, these studies highlight the significance of financial literacy, household size, and income in determining loan repayment behaviour. Financial literacy equips individuals with the knowledge and skills to manage their finances effectively, while household size and income play important roles in influencing the ability to meet loan repayment obligations. Studies by Abu *et al* (2017) and Enimu *et al* (2017) also observed an inverse correlation between male identity and successful loan repayment. Loan amounts are similarly stated to be positively correlated with successful loan repayments (Acqua and Addo 2011; Aunio-Vitor 2012; Abu *et al* 2017; Enimu *et al* 2017).

Several research studies have been conducted in Sri Lanka to investigate the impact of financial literacy programmes on various aspects of society. Halloluwa *et al* (2017) conducted a study that focused on financial literacy programmes specifically designed for rural children. The researchers examined the content and delivery methods of these programmes, aiming to assess their effectiveness in enhancing financial literacy among children in rural areas. Similarly, a study by Premarathne and Abeysekera (2020) explored the role of microfinance institutions in delivering financial literacy programmes in Sri Lanka and highlighted the specific approaches and strategies employed by these institutions to provide financial education to the target population.

Menike (2018), Ye and Kulathunga (2019), and Kulathunga *et al* (2020) focused on evaluating the potential impact of financial literacy on the performance of small and medium-sized enterprises (SMEs) in Sri Lanka. Rajapakse (2018) conducted a study on the financial behaviours of academics in Sri Lanka, with a specific focus on understanding how financial literacy influences their decision-making and financial management practices. Furthermore, Kumari (2019) explored the relationship between financial literacy and women's empowerment in Sri Lanka. The study examined how financial

literacy programmes can contribute to empowering women, both economically and socially. Senevirathne *et al* (2017) provided a conceptual discussion on the development of a financial literacy index for developing countries, including Sri Lanka.

However, the aforementioned review of empirical knowledge reveals a lack of empirical studies in the context of Sri Lanka examining the relationship between financial literacy and loan repayment. In particular, financial literacy in the rural sector of Sri Lanka is considerably lower compared to the urban sector. Similarly, delays in loan repayments are significantly higher in the rural sector. Consequently it is important to examine whether these delays in loan repayment are affected by financial literacy. Thus, the present study attempts to fill this gap in the empirical body of knowledge by examining the link between financial literacy and loan repayment in the context of rural sector in Sri Lanka. Based on the literature review and to align with the objectives of the present study, the following main hypothesis and secondary hypothesis are formed.

Main hypothesis

H1: The financial literacy of rural sector households significantly affects their loan repayment decision.

Secondary hypotheses:

H2: Household size in the rural sector significantly affects their loan repayment decision.

H3: The age of the head of the household in the rural sector significantly affects their loan repayment decision.

H4: The education level of rural sector households significantly affects their loan repayment decision.

H5: The employment status of the head of the household in the rural sector significantly affects their loan repayment decision.

H6: The loan repayment decision of rural sector households who receive remittances is different from that of those who do not receive remittances.

H7: The loan repayment decision of rural sector households who have disabled members is different from that of who do not have disabled members.

3. Methodology

3.1. Study Area, Sample and Data Collection

The present study focuses primarily on rural households in Uva Province, who have borrowed from public and private commercial banks. Uva Province has consistently been regarded as one of the marginalised provinces within the country, characterised by a prolonged period of severe poverty over the past three decades. Comprising two districts, namely Badulla and Monaragala, Uva

Province encompasses a total of 26 Divisional Secretariat (DS) divisions, with 15 divisions situated in Badulla and 11 divisions in Monaragala. Moreover, Uva Province accounts for the largest rural sector in Sri Lanka and also the highest rural poverty. Common rural characteristics, such as an agriculture based economy, remoteness, and traditional industries can also be widely seen in Uva Province, therefore the results based on Uva Province can be effectively applied to entire rural sector of Sri Lanka. To ensure a representative sample, a proportional selection approach was employed, resulting in the inclusion of 6 DS divisions from Badulla and 4 DS divisions from Monaragala, thereby encompassing a total of 10 DS divisions within Uva Province. The selection of DS divisions was carried out utilising the Simple Random Sampling Technique, enabling a systematic and unbiased selection process. Detailed information pertaining to the selected DS divisions is provided as follows.

Table 1: Details of the selected DS Divisions

Districts	*Selected DS Divisions*
Badulla	Badulla Passara Meegahakiwula Hali Ela Bandarawela Lunugala
Monaragala	Monaragala Buttala Wellawaya Badalkumbura

Source: Created by authors

Data were collected from 1000 households – 100 each from the DS division – based on a Convenient Sampling Technique as there is no proper sample frame of the people who have borrowed during the last two years. The data collection started in February 2023 and 10 field enumerators collected the data over a period of three weeks. However, data relating to 25 households were ignored as their responses were incomplete, hence the study used data from only 975 households for the analysis.

3.2. Data Analysis

In addition to the descriptive analysis, the study mainly employed Probit Regression Analysis as the dependent variable is a binary variable (Whether the respondent pays the loan regularly or not). The Probit model was employed to examine the impact of financial literacy and other correlates on the loan payback decision.

$$Y_i = \beta_0 + \beta_1 X_i + U_i \quad (1)$$

Y_i is the dependent variable which takes the value of 1 if the household is paying the loan regularly and 0 otherwise. X_i is a vector of independent variables, for which the details are provided in Table 2.

Table 2. Explanation on independent variables

Name of Independent Variables	*Explanation*	*Type of variable*	*Categories of Dummy Variables*
FLINDEX	Financial Literacy Index	Continuous	-
Age	Age of the borrower	Continuous	-
Age Squared	Square of the age of the borrower		-
HH Size	Number of members of the household	Continuous	
Civil Status	Civil Status of the borrower	Dummy	Civil Status = 1 for Married Civil Status = 0 for Unmarried
Debt to Income	Debt to Income Ratio (Monthly loan instalment as a percentage of monthly income of the household)	Dummy	-
Remittance	Households who receive foreign remittances	Dummy	Remittance = 1 for Remittance receiving households Remittance = 0 for Non-Remittance receiving households
Education	Education of the borrower	Dummy	Education = 1 for Primary level of education Education = 2 for Secondary level of education Education = 3 for Tertiary level of education Education = 0 for No Schooling
Employment Status	Employment status of the borrower	Dummy	Employment status = 1 for Government Employment status = 2 for Private Employment status = 3 for Employer Employment status = 0 for Unemployed
Disability	Whether the borrower is a disabled person	Dummy	Disability = 1 for Non-disabled Disability = 0 for Disabled

Source: Created by authors

The independent variables listed in Table 2 were selected based on previous empirical analyses such as Greenspan (2002), Wongnaa and Awunyo-Vitor (2013), Pasha and Negese (2014), Firafis (2015) and Enimu *et al* (2017).

3.3. Measuring Financial Literacy Variable

The measurement of financial literacy has been a subject of extensive debate among scholars. Lyons and Neelakantan (2008), Calvet *et al* (2009), and Hung *et*

al (2009) have emphasised that financial literacy is a multidimensional concept, suggesting that it cannot be adequately captured by using individual variables alone. As a result, the present study aligns with Lyons *et al* (2019) in adopting a comprehensive approach to measuring financial literacy. Specifically, the study utilises a financial literacy index[4] consisting of three dimensions: financial knowledge, financial experience, and financial information search. Table 3 below presents the dimensions, indicators, and measurements associated with the proposed Financial Literacy Index. This multidimensional approach allows for a more holistic assessment of individuals' financial literacy, encompassing various aspects of financial knowledge, practical experience, and active information-seeking behaviours.

Table 3. Operationalization of the independent variable – Financial Literacy Index

Dimensions	*Indicators*	*Measurements*	*Supported Studies*
Financial Knowledge	Interest Rate – Respondent were asked "Given a 5% interest rate, how much would you have after 5 years if you have saved Rs. 100,000.	= 5 for the correct answer otherwise 0	Lusardi and Mitchell (2014), Yin *et al* (2014) Lusardi *et al* (2017)
	Inflation – Respondent were asked "With an interest rate of 5% and an inflation rate of 3%, after saving money in a bank for 1 year, can you buy more or less than the last year?	=5 for the correct answer otherwise 0	
	Investment Risk – Respondents were asked "Do you think stocks have greater risk than saving deposit?"	= 5 for the correct answer otherwise 0	
Financial Experience	Respondents were asked "Have you ever taken an economic or financial class before?"	= 5 for if Yes otherwise 0	Calvet *et al* (2009) Lyons *et al* (2017)
Financial Information Search	Respondents were asked: "To what degree do you pay attention to economic and financial information?"	5-point Likert-scale If 5 – Paid extreme attention If 4 – Paid a lot of attention If 3 – Paid a general attention If 2 – Paid a little attention If 1 – Paid a no attention	Lyons and Scherpf (2004) Lyons *et al* (2006)

Source: Created by authors

4. Results and Discussion

Table 4 indicates the summary statistics related to dependent variable and each independent variable.

Table 4. Summary statistics of intendent variables

Variables	*Observations*	*Mean*	*Standard Deviation*	*Minimum*	*Maximum*	*Skewness*	*Kurtosis*
FLINDEX	975	35.0921	17.9886	12	100		
Age	975	46.4343	12.5782	25	89	0.6423	2.7458
HH Size	975	3.9751	1.6585	1	11	0.8475	4.6494
Married	975	0.3726	0.3.132	1	0	-0.6586	4.0686
Debt to Income	975	4.0796	10.1963	2	87	1.4662	3.2028
Remittance	975	45,762	123.6310	23,650	75,518	0.0754	3.0452
Primary	975	0.1468	0.4511	0	1	1.9952	4.9809
Secondary	975	0.6943	0.46091	0	1	0.2124	1.7122
Tertiary	975	0.1025	0.3035	0	1	0.6194	2.8616
Government	975	0.1825	0.3864	0	1	1.6439	3.7025
Private	975	0.3844	0.4867	0	1	0.4750	1.2256
Business	975	0.2144	0.4109	0	1	1.3881	2.9269
Non-disabled	975	0.1023	0.2926	0	1	0.0951	1.0090

Source: Created by authors

As Table 4 indicates, the study is based on the data from 975 households. The average age of the head of household is 46.4 years. The lower mean value of the calculated Financial Literacy Index (35.09 out of 100) confirms the lack of financial literacy in the rural sector of Sri Lanka. Skewness and Kurtosis are also included in order to test the assumption of normal distribution. As Hair *et al* (2010) and Bryne (2010) have highlighted, data are considered to be normally distributed if Skewness and Kurtosis are between –2 to +2 and –7 to +7 respectively. As Table 4 indicates, Skewness and Kurtosis are between the aforementioned thresholds and therefore it can be confirmed that the data are normally distributed.

Table 5 indicates the correlation among the independent variables included in the model. As Table 5 summarises, there is no correlation among the independent variables and hence the econometric model can be estimated without concerns over multicollinearity.

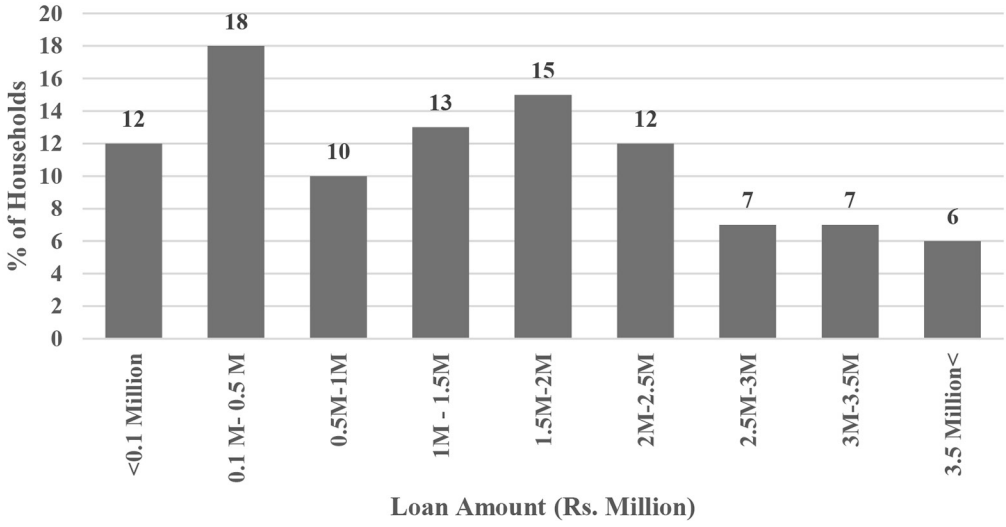
Figure 1 illustrates the percentage of households who have borrowed different amount of loans. According to Figure 1, the largest group of households (18 per cent) have borrowed 0.1 million to 0.5 million rupees, followed by 15 per cent that have borrowed 1.5 million to 2 million rupees. 3.5 million rupees or above has borrowed by only 6 per cent of households.

Table 5. Correlation among the independent variables

Variables	*HHSize*	*FLINDEX*	*Age*	*Married*	*Prim*	*Secon*	*Tert*	*Gov*	*Private*	*Bus*	*Urban*	*Rural*	*Debt/ Income*	*Disabled*
HHSize	1.000													
FLINDEX	0.061	1.000												
Age	0.035	0.033	1.000											
Married	-0.011	-0.078	0.009	1.000										
Prim	-0.025	-0.292	0.121	0.108	1.000									
Secon	0.004	0.047	-0.236	-0.026	-0.625	1.000								
Tert	0.017	0.392	0.123	-0.029	-0.140	-0.509	1.000							
Gov	0.022	0.288	0.153	0.037	-0.156	-0.050	0.337	1.000						
Private	-0.051	-0.154	-0.116	-0.024	0.167	-0.126	-0.069	-0.373	1.000					
Bus	0.084	0.072	-0.054	0.008	-0.038	0.124	-0.107	-0.247	-0.413	1.000				
Urban	0.046	0.601	0.171	-0.054	-0.299	0.066	0.376	0.278	-0.108	0.082	1.000			
Rural	0.001	-0.162	-0.136	0.035	-0.078	0.178	-0.149	0.024	-0.379	-0.008	-0.464	1.000		
Debt/Income	0.034	0.005	0.005	0.070	-0.024	-0.060	0.034	0.001	0.022	-0.007	0.003	-0.011	1.000	
Disabled	0.059	0.045	0.022	-0.019	0.013	-0.038	0.041	0.047	-0.055	0.001	0.062	0.201	0.024	1.000

Source: Created by authors

Figure 1: Percentage of households who have borrowed different amounts of loans



Source: Created by authors

Table 6 indicates the results of the Probit Regression which was employed to accomplish the objective of the study. Three different models have been estimated in order to check the robustness of the estimates. However, the results are discussed here in relation to model 3. According to Table 6, the financial literacy index (FLINDEX) has included in all three models and it shows a positive relationship with the dependent variable –paying back loans.

Specifically, a one unit increase in the financial literacy index increases rural households' probability of loan payback by 0.86 per cent. This relationship is statistically significant at the 1 per cent level in all three models and therefore confirms the direct link with financial literacy in the context of the rural sector in Sri Lanka. The following figure 2, illustrates the relationship between the predicted probability of paying back loans and the financial literacy index.

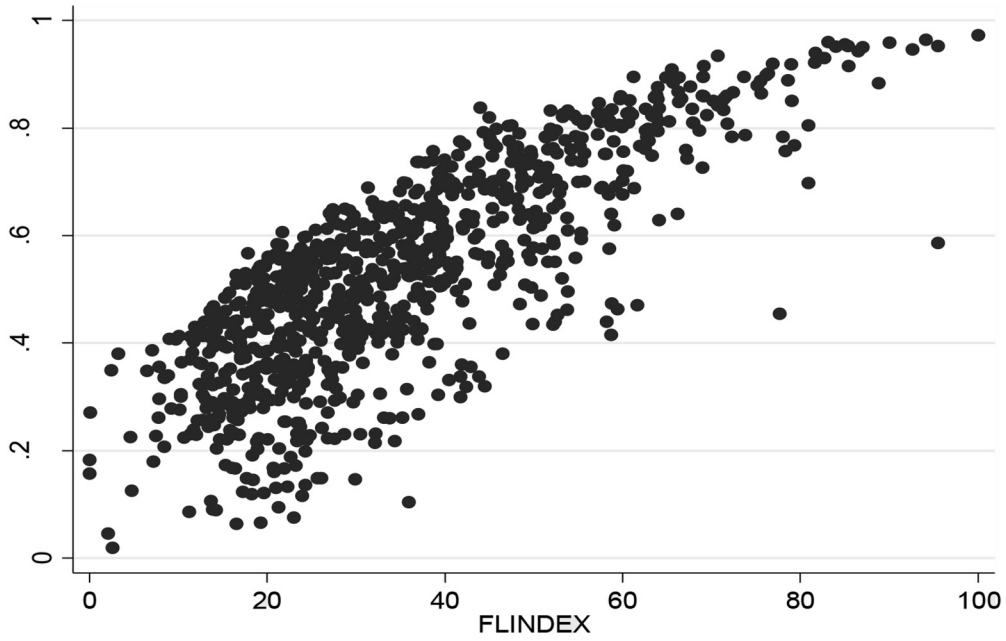
Figure 2, the scatter plot, provides visual evidence of a positive relationship between the predicted probability of loan repayment and the financial literacy index, thereby confirming the findings of the Probit Regression analysis. Individuals with higher levels of financial literacy are more aware of the benefits of timely loan repayment and the disadvantages of avoiding repayment. Consequently, they are less likely to delay their loan repayment decisions. This finding aligns with previous research conducted by scholars such as Bhatt and Tang (2002), Abafita (2003), Nyamboga *et al* (2014), Mutegi *et al* (2015), and Zhang and Yin (2016). The scatter plot visually supports the notion that higher

Table 6. Results of the Probit analysis

		Marginal Effects	
Variable	*Model 1*	*Model 2*	*Model 3*
FLINDEX	0.0088*** (0.0009)	0.0086*** (0.0011)	0.0086*** (0.0035)
HH-Size	-0.0033 (0.0092)	-0.0022 (0.0092)	-0.0024 (0.0264)
Age	-0.0044*** (0.0012)	0.0189** (0.0087)	0.0193** (0.0252)
Age2		-0.0002*** (0.0001)	-0.0002*** (0.0002)
Civil Status (Unmarried)			
Married	0.1575*** (0.0517)	0.1548*** (0.0512)	0.1646*** (0.1490)
Education (No Schooling)			
Primary	0.0436 (0.0768)	0.0393 (0.0766)	0.0180 (0.2200)
Secondary	0.0310 (0.0703)	0.0569 (0.0717)	0.0403 (0.2060)
Tertiary	0.0448 (0.0907)	0.0692 (0.0932)	0.0572 (0.267)
Employment Status			
Government		0.0813 (0.0530)	0.0817 (0.1520)
Private		0.0248 (0.0476)	0.0313 (0.1370)
Employer		-0.0046 (0.1574)	-0.0038 (0.1400)
Remittances (No Remittances)			
Having Remittance			0.1331*** (0.1340)
Disability (Disability)			
Non-Disabled			0.0562* (0.0878)
Debt/Income Ratio			-0.0034** (0.0043)
Observation	**926**	**926**	**926**
Pseudo R^2	0.0972	0.1035	0.1109
Mean VIF	1.0272	1.9889	2.2035
Breusch-Pagan Chi2# (Prob > chi2)	0.1203 (0.7238)	0.2397 (0.5982)	0.4889 (0.4683)

Source: Created by authors
- Null hypothesis (H_0): Constant variance
*** - Significant at 1% level
** - Significant at 5% level
* - Significant at 10% level

Figure 2: Relationship between the predicted probability of paying back loans and financial literacy index



Source: Created by authors

levels of financial literacy contribute to a greater likelihood of loan repayment, reinforcing the importance of improving financial literacy among individuals to enhance loan repayment behaviour.

In addition, the study observes a non-linear relationship between age and loan repayment. To capture this non-linearity, the analysis includes both the variable Age and its squared term, Age^2. Both estimated coefficients of Age and Age^2 are found to be statistically significant, confirming the existence of a non-linear relationship between age and loan repayment decisions. The non-linear relationship suggests that the probability of loan repayment increases with age up to a certain point, after which it begins to decrease. This can be attributed to the fact that as individuals progress through the later stages of the life cycle, their earning opportunities tend to decrease while expenses may increase. As a result, older individuals may experience delays in loan repayment compared to young and middle-aged adults. Similar findings have been observed in studies conducted by Gaudecker (2015) and Lyons *et al* (2018).

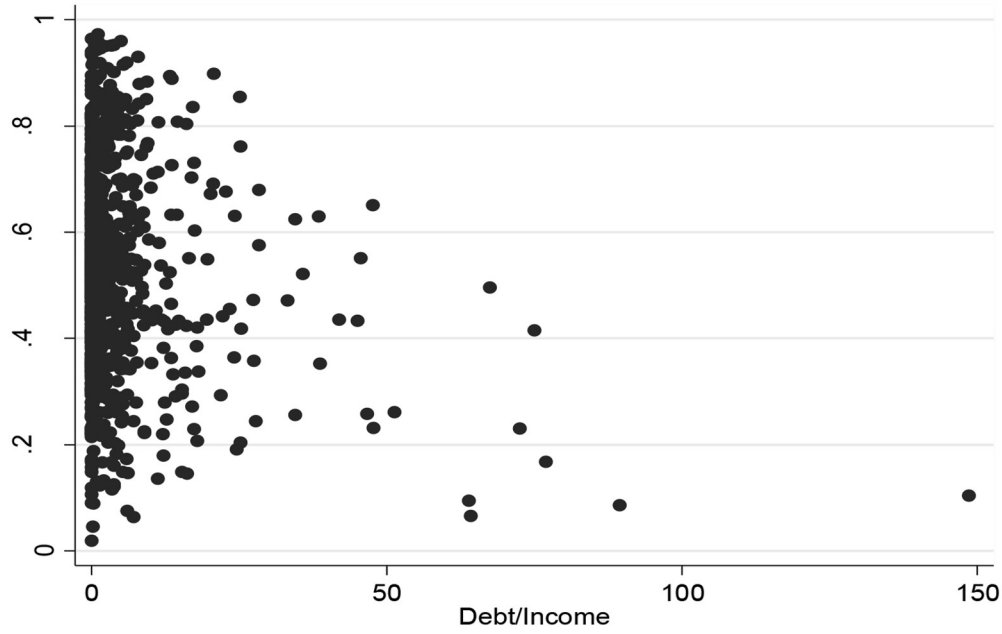
The study identifies civil status as a significant factor in explaining the loan repayment decisions of rural households. According to Table 6, the probability

of loan repayment for married individuals is significantly higher compared to unmarried individuals. Specifically, married individuals have a 16.46 per cent higher probability of loan repayment than their unmarried counterparts, and this relationship is statistically significant at the 1 per cent level. This can be attributed to the ability of married individuals to combine their incomes, resulting in a higher family income and greater capacity to repay loans compared to unmarried individuals (Kashuliza 1993).

Furthermore, the study recognises remittances as a key determinant of household well-being and includes this variable in the model. The results indicate that households receiving remittances have a significantly higher probability of loan repayment compared to those who do not receive remittances. Since households receiving remittances have a greater ability to repay loans, their respective probability of loan repayment is considerably higher. The study also reveals that households with disabled members have a lower probability of loan repayment compared to households without any disabilities.

The debt-to-income ratio has been identified as a crucial factor influencing the likelihood of loan repayment among rural households in Sri Lanka. A higher debt-to-income ratio appears to diminish the ability of households to

Figure 3: Relationship between the predicted probability of paying back loans and debt to income ratio



Source: Created by authors

repay loans consistently. As a significant portion of their income is allocated to consumption, the repayment of loans must be covered from the remaining funds. Consequently, the study demonstrates that an increase of one unit in the debt-to-income ratio leads to a 0.34 per cent decrease in the probability of loan repayment, with statistical significance at the 5 per cent level. Figure 3 provides a graphical representation illustrating the positive relationship between the predicted probability of loan repayment and the debt-to-income ratio. These findings are consistent with previous studies conducted by Kashuliza (1993), Nyamboga *et al* (2014), Mutegi *et al* (2015), Chen and Jin (2017), and Lyons *et al* (2018) regarding the impact of the debt-to-income ratio on loan repayment decisions.

However, the present study has not found any statistically significant relationship between the loan payback decision and household size, level of education and employment status.

The probit regression analysis is tested for multicollinearity and heteroscedasticity using the Variance Inflation Factor (VIF) and Breusch-Pagan Test respectively. According to Table 6, the VIF values of all three estimated models are less than 5 and therefore it can be confirmed that there is no multicollinearity issue in the mode. Based on the Chi2 ration and Prob > Chi2 of the Breusch-Pagan Test, it is apparent that the null hypothesis of constant variance cannot be rejected and therefore heteroscedasticity does not exist in the Probit regression model estimated in Table 6. Hence, the estimated Probit regression analysis is highly appropriate to model the link between the loan payback decision and its determinants.

5. Conclusions and Recommendations

The current study aims to assess the impact of financial literacy on the loan repayment decisions of rural sector households in Sri Lanka. A sample of 10 DS divisions, selected using the Simple Random Sampling technique, was drawn from Uva Province. This province consists of two districts, and a total of 26 DS divisions are present. Data was collected from 975 households within the selected divisions. Probit regression analysis was employed to analyse the collected data, and the findings indicate a significant relationship between financial literacy and the loan repayment decisions of rural households. Specifically, an increase of one unit in the financial literacy index corresponds with 0.86 per cent increase in the probability of loan repayment by rural households.

Furthermore, the study identifies a non-linear association between age and loan repayment, with the probability of repayment increasing up to a certain age threshold and decreasing thereafter. Additionally, factors such as marital status, receipt of remittances, non-disability, and debt-to-income ratio were found to significantly influence loan repayment decisions among rural households in Sri Lanka. The study strongly recommends the improvement of financial literacy among rural households in Sri Lanka through targeted training

and educational programmes. The implementation of such programmes would contribute to the stability of the country's financial system.

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Endnotes

1. Professor in Economics, Faculty of Management, Uva Wellassa University of Sri Lanka ravindra@uwu.ac.lk

2. Lecturer, Faculty of Management, Uva Wellassa University of Sri Lanka

3. Lecturer, Faculty of Management, Uva Wellassa University of Sri Lanka

4. The Financial Literacy Index was created by considering the five indicators in the index. Each indicator can take a maximum value of 5 and therefore the total value of the indicators is equal to 25. Then, the sum of the indicator value is taken as a percentage. Therefore, the index value should lies between 0-100 and higher index value indicates higher level of financial literacy.

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