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DETERMINANTS OF FINANCIAL LITERACY LEVELS AMONG RURAL WOMEN IN UGANDA

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ABSTRACT

Financial literacy has been seen as a global concern both in developing and developed countries. It affects both genders though women tend to have a lower financial literacy level compared to men. In Uganda, the government has implemented many programmes to support women to come out of poverty, but results are astonishing in terms of value of money and effort invested in these initiatives. Among the factors that may contribute to this challenge is low level of financial literacy among women. This study investigates the determinants of financial literacy levels among rural women: a case study of Luweero district. Using a multi-stage sampling strategy with a cross-sectional quantitative research design, a sample of 150 rural women operating small businesses and are subsistence farmers was selected. A binary logistic regression was used to predict the likelihood of determinants influencing financial literacy levels. Results indicated that: the average level of financial literacy score of women was 62.32; 53.55% were financially illiterate; and 46.45% only were financially literate. Rural women that had ever received financial training were 13.35 times more likely to have high financial literacy levels than their counterparts (OR=13.35, p=0.001, 95% CI=2.74-65.03); the same with those with secondary education (OR=12.04, p-value = 0.01, 95% CI=1.80-80.65); and tertiary education level ((OR= 82.34, p-value = 0.02, 95% CI=2.23-3042.23) compared to those without any level of education (OR= 82.34, p-value = 0.02, 95% CI=2.23-3042.23). Again, women who prepare budgets and are specialist buyers with (OR=7.07, p-value = 0.001, 95% CI=2.16-23.13), (OR=2.25, p-value = 0.03, 95% CI=1.08-4.69) had higher financial literacy levels compared to their counterparts

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respectively. The findings provide a rich understanding of factors associated with financial literacy levels among rural women in Luweero district of Uganda. Constant training programmes on financial literacy and financial education can propel high financial literacy levels in Uganda.

Keywords: Financial literacy, Financial illiteracy, Women, Rural, Luweero district, Uganda

Introduction

Different scholars such as Bottazzi and Lusardi (2021), OECD-INFE (2020), Yakoboski, Lusardi and Hasler (2020), among others, have defined financial literacy in various forms. In all these definitions, what is most outstanding is the ability of an individual to make financially sound decisions in everyday life. According to the Organization for Economic Co-operation and Development (OECD) and the International Network on Financial Education (INFE), financial literacy is "a combination of awareness, knowledge, skill, attitude, and behavior necessary to make sound financial decisions and ultimately achieve individual financial wellbeing" (OECD-INFE, 2011). Yakoboski, Lusardi and Hasler (2020) define financial literacy as knowledge and understanding that enable financial decision making and effective management of personal finances.

Lusardi (2019) defines financial literacy as both knowledge and financial behaviour. These definitions have informed this study in an attempt to understand what financial literacy is in simple terms, that is, being capable of making sound financial decisions. Financial literacy is still a global concern and is not only low in developing countries but even in the advanced economies with developed financial markets as seen in research done by Kumari and Harikrishnan (2021), Ozdemir et al. (2019), Kaiser and Menkhoff (2017), Hasan and Hoque (2021), among others.

Across the world, as of 2019, only 30% individuals on average can answer the "Big Three" financial literacy questions (Lusardi, 2019) making financial literacy a critical concern. However, evidence of low financial literacy is particularly high among women, and this has an implication on how women approach and make financial decisions (Ozdemir et al., 2019). The level of financial literacy is an essential indicator of women's ability to make financial decisions. Thus, it is very important to understand how financially knowledgeable women are and to what extent their knowledge of finance affects their financial decision making (Yakoboski, Lusardi & Hasler, 2020).

Africa is still faced with very high financial illiteracy levels because most Africans are not introduced to the essential principles of smart money management or given personal money knowledge at home or school (Ahmad et al., 2020; Union, 2020). This leaves them susceptible to becoming victims on everyday money decisions, which jeopardizes most aspects of their lives, including health, education, agriculture and food supply, peace and reduced violence, financial

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security, and any hopes of financial independence now and in old age. Significantly, improving financial awareness and financial literacy impacts positively these key societal challenges (Hasan & Hoque, 2021).

According to the work done by Munyuki and Jonah (2022) on financial literacy and entrepreneurial women in South Africa, their results show that women who understood the concept of financial literacy had their financial literacy levels above the national literacy average levels of 54.00 which indicated that entrepreneurial success has an association with financial skills. In this regard, Phelomenah et al. (2019) emphasize that, in Sub-Saharan Africa, women who have undergone financial literacy programmes are confident in making sound financial decisions which leads to better standards of living, independence in financial decision making as well as financial empowerment. Union (2020) also emphasizes the role of financial literacy on the profitability of women-owned enterprises. Results show that budgeting, cash flow management, savings and record keeping, as means of financial literacy, significantly influence profitability of women-owned businesses.

The overall financial levels are still also low in the East African Community despite the many programmes that have been put in place by governments to support their people (Peterson, 2021). In Uganda, various programmes, for example, Rural Farmers Scheme, Modernization of Agriculture, Poverty Eradication Plan, Prosperity for All, The Presidential Initiative on Poverty and Hunger, have been all designed to improve the quality of lives of the nationals (RoU, 2020; RoU, 2022; RoU, 2000; RoU, 2010; RoU, 2019; NRM Manifesto, 2021) but the outputs reveal astonishing results in terms of value for money and effort invested in these initiatives. In addition, among the many financing initiatives that have been set up by the government of Uganda, women have been prioritized and given leadership to head these initiatives (RoU, 2020) but little or significant effort has been seen to influence women economic development. One of the main reasons for the failure of government financial initiative is the low level of financial literacy among the people, more so the women. Financial literacy is paramount to women because they are home managers and, traditionally, they are primarily responsible for the home and daily maintenance activities which include household budgeting and paying of bills (Rai et al., 2019). Thus, this study investigated the determinants of financial literacy levels among rural women: a case study of Luweero district in central region of Uganda. Specifically, the study investigated how the socio-demographic factors, socio-economic factors, basic knowledge on financial decisions affect financial literacy levels among the women in the rural areas of Luweero district.

Materials and Methods

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Research Design

The study used a cross-sectional quantitative research design.

Study population and study area

Democratic
Republic of
the Congo

Luwero District

Kenya

Kenya

Kenya

Kampala

Tanzania

Figure 1: Location of Luweero District on map of Uganda.

The study population were rural women operating small businesses, for example, food venders, tailors, shop keepers, itinerant traders (chips sellers, maize sellers) and were subsistence farmers in Luweero District in Central Uganda who were 18 years and above. The predominant ethnic group were Baganda, and Luganda was the main local language used by the indigenous people. Luweero district has a population of 523,600 people (Uganda Bureau of Statistics, 2016; UTG, 2014). Luweero District (also spelled Luwero) is a district in Uganda's Central Region. Luweero District is bordered to the north by Nakasongola District, to the east by Kayunga District, to the southeast by Mukono District, to the south by Wakiso District, and to the west by Nakaseke District. The main economic activities are subsistence farming and small-scale business.

Sampling Techniques

In this study, a multi-stage sampling strategy was used. One sub-county out of the three sub-countries that make up Luweero district was purposively chosen at random during the first stage because it had more women operating in small business and subsistence farming. Using a systematic sampling approach, a list of households from the Local Council One (LC 1) was obtained in the second stage from records of prior surveys, which are typically kept for

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administrative purposes. This was useful in calculating the fixed household selection interval from a randomly chosen starting point. The third stage of selection, which was also carried out by simple random selection, involved choosing the qualified women from the chosen households based on the predetermined criteria, that is, rural women operating small business and doing subsistence farming were considered. Using Kish's formula to determine sample size (Kish, 1967), it produced a sample size of 158 with a design effect of 0.37 at a 95% confidence level. As a result, 158 women were included in the sample although only 155 participated in the interview, thereby giving the sample response rate of 98%. Women who never participated had personal social problems. For example, one mentioned having got ill and another two had family issues.

Data collection

A semi-structured questionnaire was developed and reviewed by different stakeholders to ensure that all the necessary information has been captured. Research assistants were trained to participate in the data collection activities of the study. The questionnaire was piloted in Nakaseke district. Nakaseke district is near Luweero district and women who were operating small business and doing subsistence farming were used during the pilot phase. The pilot phrase supported in improving of the semi-structured questionnaire to ensure that the right data was captured during the final data collection stage. After the effective completion of the pilot phrase, the research assistants collected data between 19 and 31 August 2022 using computer-assisted personal interviews (CAPI) which utilize the Open Data Kit (ODK) software. The research assistants had experience of over 5 years in data collection techniques as well as working among rural women. The interviews were conducted in Luganda using a translated questionnaire. On average, each interview lasted between 45 and 55 minutes.

The semi-structured questionnaire was based on already developed financial literacy questionnaires such as Kempson (2009), Lusardi (2019), OECD (2011), OECD (2020), Santos and Tavares (2020) and modified according to the objectives of the study. The final questionnaire had forty questions and was divided into five sections. Section A had eight items on socio-demographics, Section B had five items on socioeconomics, Section C had ten items on individual characteristics, Section D had ten items on level of financial literacy, and Section D had eight items on knowledge of basic financial concepts.

The interviews were conducted between a research assistant and a woman in an open space (compound) which offered privacy and all women were assured of confidentiality. Both verbal and written consent were used during the process of data collection. The woman had to accept verbally and then sign a written consent of the same or use a thumb print for those who did not know how to sign.

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Variables and measures

Outcome variable

Level of financial literacy was the outcome variable, scores of the level of financial literacy were based on the correct answer given by the woman under Section D of the questionnaire which were converted into percentages. Furthermore, women were grouped into two categories according to the mean percentage of the correct answers scored by the sampled women. Women whose scores were greater than the sample mean were financially literate, while those with equal or less than the sample mean were financially illiterate. Computing the level of financial literacy was based on research done before by Volpe et al. (2002), Chen and Volpe (2002) Suwanaphan (2013), Sarigul (2014), Thapa and Nepal (2015), among others.

Explanatory variables

Explanatory variables included socio-demographic factors (age and marital status), socio-economic factors (education level, business ownership, ever received finance training, individual monthly income range), basic knowledge on financial decisions (preparing a household budget, maintaining of financial records, use of money before next income arrives, options in case of bankruptcy (when the family run(s) out of money before next income arrives, being a specialist buyer (comparing prices when shopping for purchase), family and school attachment influence).

Data analysis

Frequency distributions, median, mean percentage, chi-square tests, and binary logistic regression models were used. The chi-square test was used to find out the significant relationship between socio-demographic, socioeconomics, knowledge on basic financial concepts and financial literacy levels. Since the new created variable (being financially illiterate or financially literate) was binary in nature, a binary logistic regression was used to determine the odds of a woman being financially literate. The significant variables were tested at 0.05 significance level. The analysis of the results was carried out with the support of Stata 17.0 version and R programming language R4.2.2 version.

Ethical considerations

This study received ethical review and clearance from TASO Research and Ethics Committee (approval number: TASO-2022-147). Further permission was sought from the District Residence Commission (DRC), village chairpersons, village women leaders before approaching women in the community. Participation in the study was voluntary and we obtained both verbal and written consent from women who were assured of maximum confidentiality.

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Results

Distribution of level of financial literacy Score

Table 1 shows that the average level of financial literacy score was 62.32 with a minimum score of 10 and a maximum score of 100. Based on the level of financial literacy scores, the results also reveal that most women were at the median level of 60. Also, the median level of financial literacy score is almost close to the average level of financial literacy score of 62.32.

Table 1: Distribution of level of financial literacy score

Summary statistics for financial literacy score					
Minimum value	1 st quartile (25%) value	Median value	Mean value	3 rd quartile (75%) value	Maximum value
10	50	60	62.32	80	100

In addition to results in Table 1, women were further arranged into two groups according to the level of financial literacy score mean value. Hence women who had their level of financial literacy score below the financial literacy score mean were considered to be financially illiterate and those that scored above were considered financially literate as seen in Table 2

Table 2: Shows grouping of level of financial literacy score

Level of financial literacy	Frequency (n)	Percentage (%)
Financially illiterate	83	53.55
Financially literate	72	46.45

The results from Table 2 indicate that the majority (53.55%) of the participants were financially illiterate while 46.45% were financially literate. This implies that the majority of the women had little or no knowledge on financial literacy.

Association between selected financial characteristics and financial literacy

Education level, ever received financial training, maintaining records, preparing budgets and business ownership greatly influenced the levels of financial literacy of the study participants.

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Results from Table 3 show that education level was significantly associated with financial literacy level of the participants. The Chi-square statistics for 4 degrees of freedom was 20.75 accompanied by a significant p-value = 0.000 revealed that education level was highly associated with financial literacy and awareness of the study participants. All the university graduates turned out to be financially literate while the majority (84.62%; 22) of those without any level of education was financially illiterate. Business ownership was significantly associated with financial literacy, in other words, the Chi-square statistics for 1 degree of freedom was 15.92 which was significant at p-value = 0.000. This value indicated that business ownership was related to financial literacy. From Table 3, 55% of the business owners were financially literate while 43% of those that did not own businesses were financially illiterate.

Table 3: Association between selected financial characteristics and financial literacy

illiterate Freq (%)	Literate Freq (%)	Total	Significance
Freq (%)	Freq (%)	- 4045	
		Freq (%)	
84.62 (22)	15.38 (4)	100 (26)	
62.5 (40)	37.5 (24)	100 (64)	$X^2(4) = 20.75$
46.94 (23)	53.06 (26)	100 (49)	p-value = 0.000
21.43 (3)	78.57 (11)	100 (14)	
0 (0)	100 (22)	100 (2)	
56.04 (51)	43.96 (40)	100 (91)	
52.38 (22)	47.62 (20)	100 (42)	$X^2(3) = 3.24$
33.33 (1)	66.67 (2)	100 (3)	p-value = 0.357
73.68 (14)	26.32 (5)	100 (19)	
45 (45)	55 (55)	100 (100.00)	$X^2(1) = 15.92$
	62.5 (40) 46.94 (23) 21.43 (3) 0 (0) 56.04 (51) 52.38 (22) 33.33 (1) 73.68 (14)	62.5 (40) 37.5 (24) 46.94 (23) 53.06 (26) 21.43 (3) 78.57 (11) 0 (0) 100 (22) 56.04 (51) 43.96 (40) 52.38 (22) 47.62 (20) 33.33 (1) 66.67 (2) 73.68 (14) 26.32 (5)	62.5 (40) 37.5 (24) 100 (64) 46.94 (23) 53.06 (26) 100 (49) 21.43 (3) 78.57 (11) 100 (14) 0 (0) 100 (22) 100 (2) 56.04 (51) 43.96 (40) 100 (91) 52.38 (22) 47.62 (20) 100 (42) 33.33 (1) 66.67 (2) 100 (3) 73.68 (14) 26.32 (5) 100 (19)

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No	78.18 (43)	21.82 (12)	100 (55)	<i>p</i> -value = 0.000
Ever received financial training				
Yes	35.29 (12)	64.71 (22)	100 (34)	$X^2(1) = 8.19$
no	62.81 (76)	37.19 (45)	100 (121)	p-value = 0.004
Financial behaviour				
very economical	61.9 (26)	38.1 (16)	100 (42)	
somewhat economical	54.84 (34)	45.16 (28)	100 (62)	$X^{2}(4) = 2.21$
neither	52.63 (10)	47.37 (9)	100 (19)	p-value = 0.697
somewhat spending	50 (12)	50 (12)	100 (24)	p-value = 0.097
Very spending	75 (6)	25 (2)	100 (8)	
Records Keeping				
records	9.1(8)	90.9 (80)	100(88)	$X^2(1) = 155.00$
no records	90.9(40)	9.1(4)	100(44)	p-value = 0.000
Preparing a budget				
No	73.12 (68)	26.88(26.88)	100 (93)	$X^2(1) = 25.31$
Yes	32.26 (20)	67.74 (42)	100 (62)	p-value = 0.000

Freq represents frequency

With regard to a woman having ever received a financial training, 22% of those that trained were financially literate while only 45% of those that had never received training were financially literate. Furthermore, 80% of the women that maintained records were financially literate while 40% that did not maintain records were financially illiterate. Lastly, 68% of women who did not prepare budgets in their respective businesses were financially illiterate while only 42% of those who prepared their budgets were financially literate.

Determinants of financial literacy levels among women in rural areas

According to Table 4, the logistic regression model of 150 observation produced a likelihood ratio of 110.83 with its associated p-value of 0.000 which was statistically significant, an

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indication that the model was of a good fit. Secondly, the pseudo-R-squared was 0.54 which also indicated that 54% of the variations in the financial awareness and financial literacy levels was accounted for by the study predictors. From the parameter estimations, we see that the odds of increasing financial literacy levels was predicted to be 13.35 times more among the women that had ever received financial literacy training than those that had never received any financial training while holding other factors constant (OR=13.35, p-value = 0.001, 95% CI=2.74-65.03).

Table 4: Determinants of financial literacy levels among women in rural areas

Financial literacy	Odds ratio	Std. err.	Z	P> z	[95% con	f. interval]
Ever received training						
Yes	13.35	10.79	3.21	0.001	2.74	65.03
Age	1.04	0.026	1.68	0.093	0.99	1.09
Marital status						
single mother	0.81	0.51	-0.34	0.74	0.23	2.80
single, never married	0.59	2.05	-0.15	0.88	0.00	545.37
divorced/separated	0.12	0.123	-1.96	0.05	0.01	1.00
Income level						
below 50,000	0.07	0.14	-1.35	0.18	0.00	3.34
50,000-150,000	0.01	0.03	-1.99	0.047	0.00	0.94
150,000-250,000	0.16	0.33	-0.89	0.375	0.00	8.84
250,000-500,000	0.06	0.12	-1.42	0.156	0.00	2.91
Education Level						
primary education	5.05	4.46	1.84	0.07	0.90	28.46
secondary education	12.04	11.68	2.56	0.01	1.80	80.65
tertiary education	82.34	151.64	2.4	0.02	2.23	3042.23
Financial behaviour						
somewhat economical	0.87	0.64	-0.18	0.85	0.21	3.70

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neither	0.25	0.24	-1.44	0.15	0.04	1.66
somewhat spending	2.01	1.70	0.82	0.41	0.38	10.52
very spending	0.05	0.08	-1.77	0.08	0.00	1.39
Business ownership						
No	0.09	0.07	-3.17	0.00	0.02	0.40
Use of money						
Keep it in cash	0.68	1.76	-0.15	0.88	0.00	111.29
Deposit in bank	2.78	2.41	1.18	0.24	0.51	15.21
Lend it out	9.45	7.99	2.66	0.008	1.80	49.60
Buy gold & jewelry	5.79	5.14	1.98	0.048	1.02	32.95
Budget (yes)	7.07	4.28	3.24	0.001	2.16	23.13
Specialist buyer (yes)	2.25	0.84	2.17	0.030	1.08	4.69
ptions in case of bankruptcy						
Borrow from friends/relatives	0.48	0.45	-0.79	0.43	0.08	3.02
Spend our savings	1.60	1.59	0.47	0.64	0.23	11.26
Use a bank loan	4.77	3.45	2.16	0.03	1.16	19.67
Family attachment influence	1.78	0.42	2.47	0.01	1.13	2.82
School Influence on money management	2.24	0.90	2.02	0.04	1.02	4.92
_constant	0.02	0.07	-1.22	0.22	0.00	9.96
	Num of obs	=	150			
	LR chi2(30)	=	110.83			
	Prob > chi2	=	0.000			
Log likelihood = -46.9385	Pseudo R2	=	0.5414			

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We also see that the odds of increasing financial literacy level are predicted to grow by 1.04 times with each additional year of age (OR=1.04, p-value = 0.093, 95% CI=0.99-1.09). For the marital status, we see that the odds of increasing financial literacy levels are expected to be 0.12 times less for the divorced/separated (controlling for other factors) than they are among the marrieds (OR=0.12, p-value = 0.13, 95% CI=0.01-1.00). Similarly, the odds of increasing financial literacy levels are expected to be 0.01 times less for those in the income range UGX 50,000-150,000 than those above UGX 500,000(OR=0.01, p-value = 0.047, 95% CI=0.00-0.94) as seen in Table 4.

On the other hand, Table 4 shows that the odds for increasing financial literacy levels are predicted to be about 12.04 times more among those that had secondary education than those without any level of education (OR=12.04, p-value = 0.01, 95% CI=1.80-80.65). Similarly, the odds for increasing financial literacy levels were predicted to be 82.34 times more among those in the tertiary education level than those without any level of education (OR=82.34, p-value = 0.02, 95% CI=2.23-3042.23).

Furthermore, financial behaviour of the rural woman with regard to spending and saving patterns does not significantly predict financial literacy levels. Interestingly, the odds of increasing financial literacy levels were predicted to be 0.09 times less among those without businesses than those with businesses (OR=0.09, p-value = 0.00, 95% CI=0.02-0.40) as seen in Table 4.

In addition, we see that in Table 4, when it comes to the use of money, the odds of increasing financial literacy levels were predicted to be 9.45 and 5.79 times more among those who lent out their money for interest (OR=9.45, p-value = 0.008, 95% CI=1.80-94.60) and those that bought gold and jewelry (OR=5.79, p-value = 0.048, 95% CI=1.02-32.95) respectively than among those who used their money for consumption purposes. Those who lent money and those that bought luxurious products for resale and business appeared to know the value for their money as compared to those that consumed it instead.

Again, with regard to the budget, results from Table 4 indicate that the odds of increased financial literacy levels were predicted to be 7.07 times larger among those that prepared budgets than those that did not prepare budgets before consumption, holding other factors constant (OR=7.07, p-value = 0.001, 95% CI=2.16-23.13). Also, the odds of increased financial literacy levels were predicted to grow by 2.25 times more among specialist buyers than they were among buyers that made purchases without comparing market prices (OR=2.25, p-value = 0.03, 95% CI=1.08-4.69). Therefore, women that compared prices before purchasing an item were likely to score higher than their counterparts who did not.

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The odds of increasing financial literacy levels were also predicted to be 4.77 times more among those that sought for bank loans than they were among those that borrowed from friends and relatives (OR=4.77, p-value = 0.03, 95% CI=1.16-19.67). In other words, those that borrowed from banks after going through steps to be rendered ready for a financial loan were more likely to be financially literate than those that sought financial assistance from families and friends as shown in Table 4.

Finally, we see that the odds of financial literacy levels were predicted to be 1.78 and 2.24 times more among those that had stronger family (OR=1.78, p-value = 0.01, 95% CI=1.13-2.82) and school (OR=2.24, p-value = 0.04, 95% CI=1.02-4.92) attachments respectively than other categories (friends, books, media, life experiences, and internet) of participants while holding other factors constant according to Table 4.

Discussion of findings

Our results show that rural women that have ever received financial literacy training had higher financial literacy levels compared to those that have never received any financial training. This can be attributed to the fact that if a rural woman has ever received financial literacy training, she has some or basic knowledge on different financial literacy skills, for example, how to use and spend money. She can put money in her own business to boost it or put money in future investments such as buying domestic animals like pigs, cows, goats etc. This result is in line with results by Potrich et al. (2015) which stressed that an individual equipped with financial literacy skills through training can apply the learnt knowledge in their own business, family, support others who need financial skills compared to those with none. Also, a rural woman who has ever received financial training has knowledge on record keeping, how to start a business, preparing a home or business budget, how to save, borrow money from a Sacco, bank or village savings and loan associations (VSLA), how to compute sales or profit from a business, among other skills. Equipping rural women with clear financial literacy skills is paramount as they can run their business with minimum losses as well as being able to make clear financial decisions in their day-to-day lives.

Education level is also seen to have a significant impact on financial literacy levels. Rural women who had secondary and tertiary level of education had higher odds of financial literacy levels compared to those with no education level. Education improves one's cognitive thinking, how one sees life compared to someone with no education. Someone with some level of education can easily understand basic financial literacy skills because of his/her education background and not all concepts will look new. He/she will also have a positive attitude towards learning new concepts to make his/her life better. This study agrees with the study done by Morgan (2021); although he stressed inclusion of financial digital technologies on each

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education level as the world is now digitalized. He emphasized that financial digital skills should be trained to enable different individuals use the digital space where a lot of business is happening now, and anyone can transact from anywhere across the globe. Inclusion of financial literacy education can improve financial literacy levels among disadvantaged people, for example, women, rural women, the poor, micro-small-sized enterprises, among others. Thus, rural women who have received any form of education, e.g., secondary, tertiary, are more likely to have high financial literacy levels than those with no education level.

Furthermore, our results showed that women whose monthly income level was above UGX 500,000 were more likely to have better financial literacy levels compared to those that had below UGX 500,000. This could be because these rural women owned business; had support from their husbands, for those that were married; knew how to compute sales or profits so they could minimize losses; were able to access bank loans and invest back in their business; were specialized buyers; maintained or prepared business and family budgets; had ever received financial literacy training; had a minimum education level (secondary or tertiary) and would spend wisely into profitable ventures, which was not the case for other women who used their monies in buying jewels and gold as well as for consumption purposes only. These results are in line with work done by Aren and Zengin (2016). They reported the relevance of financial education in business and at schools. In addition, they highlighted that factor like language used at school, mathematics and reading score, business ownership, income, use of money and consumption patterns influence financial literacy levels. Thus, for someone to own any form of enterprise, he or she should have basic skills in computation and having a willingness to learn new financial literacy skills.

Kadoya and Khan (2020) used data from Osaka University's Preference Parameter Study to investigate the factors influencing financial literacy in Japan. Their study looked at a variety of demographic, socioeconomic, and psychological factors based on social learning, consumer socialization, and psychological learning theories. The findings of their study were like the findings of this current study: for example, age, marital status, education, income, family and school influence all had a significant impact on financial literacy levels. The findings, however, were robust to different measures of financial literacy and highlighted the importance of social contact and people's future orientation in improving financial literacy levels in Japan.

The current study highlights how rural women use money, that is, the nature and forms of consumption, such as those who preferred to spend their money on consumables, those who preferred to spend their money on gold and jewelry, and those who preferred to simply lend or borrow from relatives and friends. How money is being used and spent is an important key to be financially independent. Dewi (2022) discovered that demographic factors such as gender, age, use of money, and specialization influenced the relationship between financial skills, knowledge,

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capability, awareness, experience, goal, and financial decision differently. He also provided empirical evidence that the socioeconomic factor of consumption spending influenced the various relationships between financial awareness and skills as also seen in the work of Potrich et al. (2015). Hence, individuals' preference consumption directs how they use their money on whether they spend it wisely or not.

Results in the current study show that financial influence plays a key factor in financial literacy levels. For example, women who learnt about managing money from their families and schools are more likely to have higher financial literacy levels compared to others who are influenced by friends, reading books, media, life experiences and internet. This could be attributed to the fact that some families tend to teach basic skills in money management as one is growing up and more knowledge can be learnt as one goes through school. According to Monticone (2015), an individual who learnt some financial skills from home, family or at school must be in position to participate effectively in economic activities and make appropriate financial decisions for themselves and their families. Thus, even though information on financial literacy can be got from many areas in this IT era, families and schools should contribute to equipping their members with knowledge as far as financial literacy skills are concerned.

Conclusion

Our results showed that women who had ever received financial literacy had their odds of increasing financial literacy levels predicted to be 13.35 times more than those that had never received any financial literacy training. This is a key finding because training of women with different key financial skills, for example on how to save, spend, budget, invest, starting small business and maintain them helps them to make clear financial decisions which, in the long run, improves their standards of living as supported by Bannier and Neubert (2016), Letkiewitz et al. (2019), and Ward and Lynch (2018).

Again, education plays a key role in improving financial literacy levels among women. A woman with a minimum level of education can easily be trained on different financial literacy skills; can wisely use money; be able to make simple family and business budgets; as well as maintain family or business records. Thus, financial education should be embraced at any stage of development in life. Business ownership and financial influence (family and school) also play key roles in improving financial literacy levels among rural women.

Recommendations

This study recommends that (i) to improve the levels of financial literacy among rural women, training of women in different financial skills should be key and it should be continuously done by the different government programmes. Where possible, women should be mainly trained on

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how to start small businesses; how to maintain a business; record keeping; preparing a budget and how to use things within their environment as startup capital for business: for example, one can do poultry, goat keeping, creating kitchen gardens without necessary having liquid money; (ii) further research can emerge from this study, for example, since it was a cross-sectional study, other researcher(s) can consider it as a longitudinal study whereby these same women can be followed up for more than once to study the impact of financial literacy training; (iii) since it was a study for and about women only, a new study can involve men from rural areas of Luweero district and results can be varied according to different districts in Uganda.

Limitation of the study

The study covered rural women from only one district in Uganda; hence the results may not give a clear national representation of financial literacy among rural women varying by district since it was not a national study. The study was not longitudinal in nature. We were not able to assess the impact of the training after a certain point in time. This study was only cross-sectional and investigated the level of financial literacy among rural women, which implies that the impact of training could not be measured immediately.

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References

Ahmad, A. H., Green, C., & Jiang, F. (2020). Mobile money, financial inclusion and development: A review with reference to African experience. *Journal of Economic Surveys*, *34*(4), 753-792.

Aren, S., & Zengin, A. N. (2016). Influence of financial literacy and risk perception on Choice of investment. *Procedia-social and Behavioral Sciences*, 235:656-663.

Bannier, C.E., & Neubert, M. (2016). Gender differences in financial risk taking: The role of financial literacy and risk tolerance. *Economic letters*, 145:130-135.

Bottazzi, L., & Lusardi, A. (2021). Stereotypes in financial literacy: Evidence from PISA. *Journal of Corporate Finance*, 71, 101831.

ISSN: 2455-8834

Volume:07, Issue:12 "December 2022"

Chen, H., & Volpe, R. P. (2002). Gender differences in personal financial literacy among college students. *Financial Services Review*, 11, 289-307.

Dewi, V.I. (2022). How do demographic factors affect financial literacy and its variables? *Cogent Business and Management*, 9(1), pp. 207-764.

Hasan, M., Le, T., & Hoque, A. (2021). How does financial literacy impact on inclusive finance? *Financial Innovation*, 7(1), 1-23.

Kadoya, Y. & Khan, M.S.R. (2020). What determines financial literacy in Japan? *Journal of Pension, Economics and Finance*, 19(1), pp. 353-371.

Karakurum-Ozdemir, K., Kokkizil, M. &Uysal, G., 2019, Financial Literacy in Developing Countries. *Soc Indic Res* 143, 325–353. https://doi.org/10.1007/s11205-018-1952-x

Kaiser, T., & Menkhoff, L. (2017). Does financial education impact financial literacy and financial behavior, and if so, when? *The World Bank Economic Review*, 31(3), 611-630.

Kempson, E. (2009). Framework for the Development of Financial Literacy Baseline surveys: A first International Comparative Analysis, pp. 31, No. 1, https://doi.org/10.1787/5kmddpzm9zq-en

Kish, Leslie. (1965). Survey Sampling. New York: John Wiley & Sons, Inc., pp. 78-94

Letkiewicz, J.C., Lim, H., Heckman, S. J., and Montalto, C. P. (2019). Parental Financial Socialization: Is too much help leading to Debt Ignorance among college students? *Family and Consumer Sciences Research Journal*, 8(2): 149-164.

Lusardi, Annamaria. (2019). Financial literacy and the need for financial education: evidence and implications. *Swiss Journal of Economics and Statistics*, 115:1, pp. 1-8.

Monticone, C. (2015) Gender and Financial Literacy, OECD

Morgan, Peter J. (2021). *Fintech, financial literacy, and financial education*. Routledge, 1st Edition, eBook ISBN: 9781003025221.

<u>Munyuki, T.</u> & <u>Jonah, C.M.P.</u> (2022). The nexus between financial literacy and entrepreneurial success among young entrepreneurs from a low-income community in Cape Town: a mixed-method analysis". <u>Journal of Entrepreneurship in Emerging Economies</u>, Vol. 14 No. 1, pp. 137-157. https://doi.org/10.1108/JEEE-01-2020-0020.

ISSN: 2455-8834

Volume:07, Issue:12 "December 2022"

NRM Manifesto. (2021). Securing your future: National Resistance Movement (NRM) 2021-2026 Manifesto, Kampala, National Planning Authority, www.nrm.ug

OECD/INFE. (2020). OECD/INFE 2020 international survey of adult financial literacy. Paris. www.oecd.org/financial/education/launchoftheoecdinfeglobalfinancialliteracysurveyreport. htm.

OECD/INFE, (2011). The international Network on Financial Education, Measuring Financial literacy: Questionnaire and Guidance Notes.

OECD. (2020). OECD/INFE 2020 International Survey of Adult Financial Literacy

OECD. (2011). Measuring Financial literacy: Questionnaire and Guidance Notes for conducting an internationally comparable survey of financial literacy. International Network on Financial Education (IFNE).

Ozili, Peterson K. (2021) Financial inclusion research around the world: A review. *Forum for Social Economics*, 50:4, 457-479, DOI: 10.1080/07360932.2020.1715238

Phelomenah et al. (2015). The role of financial literacy on the profitability of women owned enterprises in Kitui Town, Kitui county, Kenya. *International Journal of Science and Research*, 4(6), 2360-2365.

Potrich, A.C.G., Vieira, K.M., & Kirch, G. (2015). Determinants of financial literacy: Analysis of the influence of socioeconomic and demographic variables. *Revista Contabilidade & Financas*, 22, pp. 362-377.

Rai, K., Dua, S., & Yadav, M. (2019). Association of financial attitude, financial behaviour and financial knowledge towards financial literacy: A structural equation modeling approach. *FIIB Business Review*, 8(1), 51-60.

Republic of Uganda (RoU). (2020). *National Human Resource Development Plan* 2020/21-2024/25, Kampala, National Planning Authority.

Republic of Uganda (RoU). (2022). Ministerial Policy Statement FY 2022/23, Kampala, National Planning Authority.

Republic of Uganda (RoU). (2000). Plan for Modernization of Agriculture, Kampala, National Planning Authority.

ISSN: 2455-8834

Volume:07, Issue:12 "December 2022"

Republic of Uganda (RoU). (2010). *National Development Plan (NDP 2010/11 –2014/15)*, Kampala, National Planning Authority.

Republic of Uganda (RoU). (2019) Mid-Term Review of the NRM manifesto 2016-2021, Kampala, National Planning Authority.

Santos, E. U. L. Á. L. I. A., & Tavares, F. O. (2020). The level of knowledge of financial literacy and risk of the Portuguese. *Scientific Journal*, *13*(2), 91-116.

Sarigül, H. (2014). A Survey of Financial Literacy Among University Students. *Journal of Accounting & Finance*, (64).

Suwanaphan, S. (2013, June). Personal Financial Literacy of Academic Support-Employee in Chiang Mai-University. In *Proceedings from Management-Knowledge and Learning International Conference* (pp. 1061-1065).

Sunita, Kumari, AmpuHarikrishnan. (2021). Importance of Financial literacy For Sustainable Future Environment: A Research Among People In Rural Areas With Special Reference To Mandi District, Himachal Pradesh. *International Journal of Engineering, Science and Information Technology*, Vol. 1, No. 1, pp.15-19, eISSN: 2775-2674. https://doi.org/10.52088/ijesty.v1i2.36.

Thapa, B. S., & Nepal, S. R. (2015). Financial literacy in Nepal: A survey analysis from college students. *NRB Economic Review*, 27(1), 49–74.

Uganda Bureau of Statistics. (2016). *Statistical Abstract*. Can be downloaded from http://library.health.go.ug/sites/default/files/resources/UBOS%20Statistical%20Abstract%2 02016%20.pdf

Union, A. (2020). The Digital Transformation Strategy for Africa (2020-30).

UTG, (2014), The Economy of Luweero District, Available from: http://www.ugandatravelguide.com/luwero-district.html

Volpe, R. P., Chen, H., and Hassan, G. (2002). Gender differences in personal financial literacy among college students. *Financial services review*, 11(3), 289-307.

Ward, A. F., & Lynch Jr, J. G. (2018). "On a need-to-know basis:" How the distribution of responsibility between couples' shapes financial literacy and financial outcomes. *Journal of Consumer Research*, 45(5): 1013-1036.

ISSN: 2455-8834

Volume:07, Issue:12 "December 2022"

Yakoboski, Paul J., Annamaria Lusardi, & Andrea Hasler. (2020). Financial literacy and wellness among U.S women: Insights on underrepresented minority women. TIAA Institute and Global Financial Literacy Excellence Centre (GFLEC).