

The contribution of Financial Literacy on Rural Women Entrepreneurship Development in Rwanda

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Submitted: 20-05-2022

Revised: 28-05-2022

Accepted: 30-05-2022

ABSTRACT: This study assessed the contribution of Financial Literacy on Rural women Entrepreneurship Development in Rwanda. The authors considered Kabarondo sector in Kayonza District in the period of 2017-2021. The study used descriptive research design and diagnostic design for the sample size of 92 women entrepreneurs. Questionnaire and documentary review helped to collect data and descriptive statistics and inferential statistics as correlation and regression analyzed the collected data. The results revealed a very high extent in terms of debt management with the average mean of 4.44. Saving skills literacy scored the average mean of 4.44 and It was noted that there is significant relationship between rural women entrepreneurship development at $r = 0.749^{**}$; $p\text{-value} = 0.000 < 0.01$.; budgeting literacy at $r = 0.584^{**}$; $p\text{-value} = 0.000 < 0.01$; banking Services literacy at $r = 0.706^{**}$; $p\text{-value} = 0.000 < 0.01$; book keeping literacy at $r = 0.268^{**}$; $p\text{-value} = 0.010 < 0.01$ and savings literacy at $r = 0.825^{**}$; $p\text{-value} = 0.000 < 0.01$. This means that savings literacy had a positive impact on rural women entrepreneurship development and that an increase of one unit in debt management literacy, budgeting literacy, banking services literacy, bookkeeping literacy and savings skills literacy would lead to increase of $\beta_1 = 0.367$; $\beta_2 = 0.187$; $\beta_3 = 0.240$; $\beta_4 = 0.074$ and $\beta_5 = 0.438$ of rural women Entrepreneurship development in Kabarondo Sector.

Key words: Financial literacy, rural women entrepreneurship development, Kayonza District

I. INTRODUCTION

Financial literacy and access to finance are some of the main drivers of business growth. However, access to finance has been acknowledged as a barrier to rural women entrepreneurial activities in developing countries (Brixiová and Kiyotaki, 2016). Specifically, rural women with special needs less educated and low-income rural

women groups, widows, physically challenged rural women and young rural women appear to be more in dearth of financial knowledge and have limited or no access to financial needs than men.

Globally, labor force participation among rural women has dropped from 57 percent to 55 percent over the past two decades, despite strong evidence that economic participation of rural women benefits families, communities, and economies (Baalbaki, 2015). It is estimated that small and medium enterprises (SMEs) with partial or full female ownership accounts for 31 to 38% (8 to 10 million) of formal SMEs in the emerging markets. Hence, since financing is an essential means by which to pursue growth opportunities, meeting specific needs of rural women entrepreneurs in accessing finance must be an integral part of the development agenda (IFC, 2016). It is estimated that 70 percent of rural women owned small and medium enterprises are either financially unserved or underserved (Blair, 2015).

In Eastern African countries like Kenya, there is a correlation between use of financial services and exposure to financial information (Xu & Zia, 2012). The most common source of financial information is through radio, word of mouth from friends and family members, and the urban youth have greater access to television and other media. Despite successive policy interventions, micro and small enterprises in Kenya face challenges that limit their growth and diminish their contribution to sustainable development (Lusimbo and Muturi, 2016). In Rwanda, national strategy transformation (NST1) argued that financial literacy training equipped people with the capacities to make informed choices about their lives enabling them to make positive contribution to society (MINALOC, 2017). Despite the government effort to empower rural women in Rwanda, NISR, (2018) survey estimated that 40% of every single Rwandan lady have no entrance to

back by any stretch of the imagination, 40% approach just casual monetary frameworks.

Despite the growth in the entrepreneurial activities of rural women enterprises in Rwanda, the financial literacy of rural women is still lacking. Women in Rwanda confront challenges which obstruct them from accomplishing economies of scale and demoralize them from wandering into business. In August 2010, the government of Rwanda through BDF set up women Enterprise Fund which went for giving available and reasonable credit support to ladies to begin or grow business for riches and work creation. In 2014, SACCOs was started, and its sole aim was to enable rural women access finances to promote businesses and enterprises at the constituency levels. Rural women in Rwanda comprise of 52.8% of the total population and hence their contribution to economic development is very important even though their knowledge and accessibility to financial services amongst other factors has hampered their contribution to the economy (NISR, 2018).

The government looks at financial education as a tool to introduce the public to basic financial concepts and to promote financial inclusion for the unbanked, consumer protection and awareness so that individuals are less vulnerable to fraudulent schemes. As a result, it is

not clear which financial factors play a more significant role in promoting SME growth owned by rural women. The problem is further compounded by scanty empirical studies reviewing the relationship between financial literacy and SME growth owned by women (Rurangirwa, 2016). Therefore, this study seeks to examine the contribution of financial literacy on rural women entrepreneurship development in Rwanda with reference to Kabarondo Sector in Kayonza District.

II. METHODS AND MATERIALS

2.1 Description of study area

This study was conducted in Kabarondo sector of Kayonza District, Eastern Province. It is in the southeastern part of Rwanda, along the main road (RN3) from Kigali in Rwanda to Tanzania. Kabarondo is approximately 54.43 km² Area. The coordinates of Kabarondo are 2°00'38.0"S, 30°33'27.0"E (Latitude: -2.010556; Longitude: 30.557500). The population size of Kabarondo Sector was 30588 people composed by 14,858 males and 15,730 females while the population density is 562.0/km² Population Density (NISR, 2012). Kabarondo Sector is composed by 4 cells which are Cyabajwa, Cyinzovu, Kabura and Rusera cell.

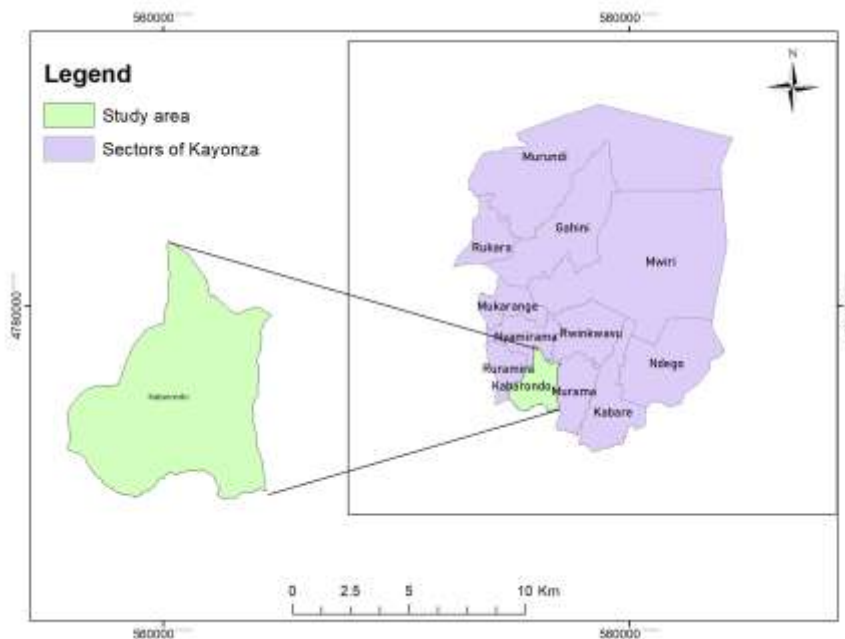


Figure 1: Map of Kabarondo Sector

2.2 Data collection

2.2.1 Population and sample of the study

The study population comprised of 119 rural women entrepreneurs in Kabarondo Sector. These were selected based on the type of business that is saloons, wholesale shops, retail shops, bars and restaurants, manufacturing companies and

Alimentation businesses. Small scale businesses operators responded on behalf of their businesses. This was due to the reason that they were at the center of the operation of their businesses. For sampling, the authors adopted the Taro Yamane (1967) formula as follows:

$$n = \frac{N}{1 + N(e)^2} \quad (1)$$

Where n is

n = sample size,

N= population size

e= Sampling error (0.05 acceptable error)

$$n = \frac{119}{1 + 119(0.05)^2} = \frac{119}{1.2975} = 91.7 \approx 92 \quad (2)$$

Therefore, the sample size comprised of 92 rural women entrepreneurship from Kabarondo sector

Table 1: Population and sample size

SMEs	Population size	Sample size $n_i = \frac{N_i * n}{N}$
	Women entrepreneurs in Kabarondo Sector	Women entrepreneurs in Kabarondo Sector
Saloons	10	8
Bars and restaurants	10	8
Retail shops	43	33
Farming (cooperatives)	54	42
Manufacturing companies	2	1
Total	119	92

Source: Kabarondo Sector report, 2021

The above sample was selected by using the stratified sampling techniques to select 92 rural women entrepreneurship in Kabarondo sector.

2.2.2 Data collection procedures

The authors employed secondary data gathered from libraries with various textbooks, journals, hand out, manuals and online information (internet). In this study, the secondary data are used from research articles, various publications, journals, books, annual reports.

The authors also utilized primary data which were collected by using structured questionnaire which was distributed among respondents. This study collected ordinal data like educational level, the perception of respondents on

the statements indicating on financial literacy of rural women entrepreneurs in Kabarondo Sector and the level of rural women entrepreneurship development among rural women entrepreneurs were measured by using ordinal data. The perception of respondents was liberated in 5 scales from strongly disagreed=1, disagree=2, neutral=3, agree=4 and strongly agree=5.

2.3 Data analysis

This study employed a descriptive statistical method for representing and summarizing of the bio data. This section deals

with the methods of analysis that was used by researcher. Descriptive statistics was used as method of data analysis using both quantitative approach (close-ended questions) and qualitative approach (open-ended questions) and measurement of variables were carried out with the aid of Statistical Package for Social Science (SPSS) version 23.0.

Descriptive statistics: Descriptive statistics was used to describe the basic features of the data in the study in the tendencies and then replicated in tabular manner. It involved use of percentages, frequencies, mean and standard deviation.

Multiple linear regressions: With multiple regression analysis, we can assess the effects of multiple predictor variables (rather than a single predictor variable) on the dependent measure. a multiple regression model was used to test the significance of the effect of the independent variables on the dependent variable. Based on other models that have been used to test the effect of sub-variable of the financial literacy such as debt management literacy, budgeting literacy, banking services literacy, bookkeeping literacy, and savings literacy on rural women entrepreneurship development in Kabarondo Sector., the present study adopts the following model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e \quad (3)$$

Where: Y = Rural women Entrepreneurship development in Kabarondo Sector, $\{\beta_i; i=1,2,3,4 \text{ and } 5\}$ = The coefficients representing the various independent variables. B_0 = the Y intercept $\{X_i; i=1,2,3,4 \text{ and } 5\}$ = Values of the various independent (covariates) variables.

e = the error term which is assumed to be normally distributed with mean zero and constant variance,

X_1 = Debt management literacy,

X_2 = Budgeting literacy,

X_3 = Banking Services literacy,

X_4 = Bookkeeping literacy,

X_5 = Savings literacy

2.4 Ethical consideration

The authors exercised utmost caution while administering the data collection instruments to the respondents to ensure their rights and privacy were upheld. Prior to actual administration of the instruments, an introduction on the aim and the purpose of the study was made to the respondents in the language they best understood. The study also sought the consent of the respondents before they provided with all the requirements of the study. To ensure confidentiality, the respondents' names did not appear on the questionnaire. Furthermore, no respondent was coerced into the excise at any level. The study findings were presented without any manipulation or influence by the researcher in any way.

III. RESULTS AND DISCUSSION

3.1 Profile of respondents

The study revealed that 45.1% attended primary education, 16.3% of respondents did not have formal education level, 51.1% of respondents had primary level, 22.8% of respondents had secondary level and the remaining 9.8% of respondents had university level. These results show that most respondents had primary education. For the age, the results in Table 2 shows that 44.6% of respondents were aged between 31 and 40 years, 29.3% of respondents were aged between 41 and 50 years and the remaining 26.1% of respondents were aged between 20 and 30 years. The implication is that the age between 31 and 40 is the most active working time.

Therefore, it is believed that if these entrepreneurs get loans and well training from different institutions, they can do well in entrepreneurship due to their age and as a result reducing poverty. Provident and Zacharia (2008) found that youths do better in entrepreneurship. About marital status, the results in Table 2 show that 78.2% of respondents are married, 14.1% of respondents were single, 4.3% are widows while 4.3% of respondents were divorced. This implies that many respondents were married. These findings are contrary to Hulme and Mosley (2000) who found that singles were more engaged in entrepreneurship than the rest. In that regard married people are more committed in reducing poverty according to their responsibilities to family matters and when compared to other people who are not married and widows.

Table 2: Education level of respondents

		Frequency	Percent
Valid	Nonformal education	15	16.3
	Primary level	47	51.1
	Secondary level	21	22.8
	University level	9	9.8
	Total	92	100.0
Age		Frequency	Percent
Valid	Between 20 and 30 years	24	26.1
	Between 31 and 40 years	41	44.6
	Between 41 and 50 years	27	29.3
	Total	92	100.0
Marital status		Frequency	Percent
Valid	Single	13	14.1
	Married	72	78.2
	Widow(er)	4	4.3
	Divorced	4	4.3
	Total	92	100.0

Source: Primary data, 2022

Furthermore, Table 3 showed that 39.1% of the respondents had operated SMEs for a period between 5 and 10 years. This implies that they have gained essential knowledge and experience to operate SMEs. 37% of the respondents alluded that

they had operated SMEs for a period of above 7 years. The findings indicated that the respondents have been in business for a period they could be able to gauge the effects of financial literacy on growth of SMEs.

Table 3: Working experience in doing business

		Frequency	Percent
Valid	Below 3 years	4	4.3
	Between 3 and 5 years	18	19.6
	Between 6 and 10 years	36	39.1
	Above 10 years	34	37.0
	Total	92	100.0

Source: Primary data, 2022

3.2 Financial literacy of rural women entrepreneurs

3.2.1 Debt management of rural women entrepreneurs

The results in Table 4 revealed that 14.1% of respondents disagreed and 4.3% of respondents were neutral whereas 39.1% of respondents agreed and the majority 42.4% of respondents strongly agreed that their debt management skills have enabled them to access various sources of finance and other development services for their business with high mean score of 4.1 and standard deviation of 1.02 which implies that the fact appear more and heterogeneity responses.

This implies that accumulation of debt through multiple borrowings and failure to adhere to the purpose of the loan adversely affects debt repayment which may hinder growth of SMEs. The finding of this study is in line with Obago (2014) studied the impact of financial literacy on running of personal finances and established that most employed individuals suffer from pressure because of monetary problem behaviors which include extravagance, credit mismanagement, over indebtedness, meager cash management and scarce income.

Table 4: Debt management of rural women entrepreneurs

	SD		D		N		A		SA		Mean	St. Dev
	fi	%	fi	%	fi	%	Fi	%	fi	%		
My debt management skills have enabled me to access various sources of finance for my business	0	0.0	13	14.1	4	4.3	36	39.1	39	42.4	4.10	1.02
I know the effect of inflation and interest rates on the loans I borrow for my business	1	1.1	4	4.3	0	0.0	6	6.5	81	88.0	4.76	.76
I can determine accurately the total debt position of my business	4	4.3	3	3.3	7	7.6	20	21.7	58	63.0	4.36	1.05
I can access finance at a minimum cost	0	0.0	1	1.1	6	6.5	26	28.3	59	64.1	4.55	.67
Overall view											4.44	0.87

Source: Primary data, 2022

3.2.2 Saving skills literacy of rural women entrepreneurs

The results in Table 5 revealed that 2.2% of respondents strongly disagreed, 4.3% of respondents disagreed and 1.1% of respondents were neutral whereas 13% of respondents agreed and the majority 79.3% of respondents strongly agreed that personal savings skills helped them reduce expenditures, such as impulse buying with high mean score of 4.63 and standard deviation of 0.89 which implies that the fact appear more and heterogeneity responses.

Researchers like Tali, (2016) emphasized the importance of involvement in saving money as one of the ways of understanding financial literacy

and building positive financial behavior and attitude. In addition, Behrman et al. (2012), cited those individuals that are unable to save are financially illiterate. Mandell and Klein (2009), on the other hand cited that financial literacy does not mean being saving-oriented and does not mean better financial behaviour. Considering both arguments, the findings of this research can be concluded to be most respondents are moderately literate on savings as most of them are neutral when it comes to saving behaviour. That is, the respondents are aware of the benefits of saving money to run their businesses more effectively and to help their expansion in the future.

Table 5: Saving skills literacy of rural women entrepreneurs

	SD		D		N		A		SA		Mean	St. Dev
	fi	%	fi	%	fi	%	Fi	%	fi	%		
Personal savings skills helped me reduce expenditures, such as impulse buying	2	2.2	4	4.3	1	1.1	12	13.0	73	79.3	4.63	.89
Personal Savings helped me focus on the kind of investment I wanted to do	9	9.8	6	6.5	1	1.1	3	3.3	73	79.3	4.36	1.36
Personal savings did not help me increase investment.	6	6.5	18	19.6	4	4.3	7	7.6	57	62.0	3.99	1.43
I save a portion of my business monthly income	8	8.7	6	6.5	0	0.0	4	4.3	74	80.4	4.41	1.30
I plan to use my savings for future growth of my business	0	0.0	3	3.3	0	0.0	8	8.7	81	88.0	4.82	.59
Overall view											4.44	1.11

Source: Primary data, 2022

3.2.3 Bookkeeping literacy of rural women entrepreneurs

The results in the Table 6 revealed that 4.3% of respondents strongly disagreed and 20.7% of respondents agreed whereas 18.5% of respondents agreed and the majority 56.5% of respondents strongly agreed that they prepare financial statements for their business (income statement, balance sheet) with high mean score of 4.23 and standard deviation of 1.06 which implies that the fact appear more and heterogeneity responses.

The finding of Ezejiofor et al., (2014) sought to establish the relevance of accounting records in small business performance in Nigeria and found that MSEs that kept proper books of account were able to measure accurately the performance of their businesses. They also assert that business decisions regarding expansion, maintaining a competitive edge, prevention of business failure and filling tax returns requires documentation with reliable and relevant information, easy to understand and readily available.

Table 6: Bookkeeping literacy of rural women entrepreneurs

	SD		D		N		A		SA		Mean	St. Dev
	fi	%	fi	%	fi	%	Fi	%	fi	%		
I prepare financial statements for your business (income statement, balance sheet)	4	4.3	0	0.0	19	20.7	17	18.5	52	56.5	4.23	1.06

I can perform financial Analysis on your business financial statements (gross profit margin, net profit margin, current ratio)	0	0.0	0	0.0	0	0.0	58	63.0	34	37.0	4.37	.49
I have adequate knowledge on how to maintain and balance ledger accounts	0	0.0	23	25.0	11	12.0	8	8.7	50	54.3	3.92	1.29
My decisions are guided by information from my financial statements	6	6.5	12	13.0	4	4.3	4	4.3	66	71.7	4.22	1.36
Bookkeeping knowledge has enabled management to prepare the financial statements	0	0.0	7	7.6	4	4.3	1	1.1	80	87.0	4.67	.88
Proper bookkeeping has led to effective stock management	0	0.0	9	9.8	8	8.7	0	0.0	75	81.5	4.53	1.01
Overall view											4.32	1.01

Source: Primary data, 2022

3.2.4 Banking services literacy of rural women entrepreneurs

The results in the Table 7 revealed that 20.7% of respondents agreed and the majority 79.3% of respondents strongly agreed that their access to banking services skills have helped them secure loans for businesses expansion with high mean score of 4.79 and standard deviation of 0.41 which implies that the fact appear more and heterogeneity responses.

The finding of this study support earlier findings by Wachira and Kihui (2012) who studied the family units in Kenya using the 2009 National Financial Access (Fin Access) who identified that

there are other factors which affect the access to financial access that are individual based. They concluded that financial literacy created awareness and enabled more individuals to be included in the financial services. Financial literacy was also rated low as a factor in household decision making which implies that majority of individuals did not value and seek out financial information in making financial decisions. Ekanem (2010) who studied the SME owner-managers in the printing and clothing manufacturing sectors in Ethiopia identified the uniqueness of each sector in relation to the financial literacy and firm administration.

Table 7: Banking services literacy of rural women entrepreneurs

SD		D		N		A		SA		Mean	St. Dev
fi	%	fi	%	fi	%	Fi	%	fi	%		

Access to banking services skills have helped me secure loans for businesses expansion	0	0.0	0	0.0	0	0.0	19	20.7	73	79.3	4.79	.41
My debt management skills have enabled me to access various sources of finance for my business	0	0.0	3	3.3	3	3.3	1	1.1	85	92.4	4.83	.64
I can determine accurately the total debt position of my business	0	0.0	15	16.3	0	0.0	5	5.4	72	78.3	4.46	1.11
Access to banking services skills have equipped me with necessary skills for managing business account to transact day-to-day affairs	0	0.0	0	0.0	0	0.0	2	2.2	90	97.8	4.98	.15
Access to banking services skills have equipped with necessary skills on how to use cheques, credit cards, bank drafts	9	9.8	8	8.7	3	3.3	8	8.7	64	69.6	4.20	1.39
Overall view											4.65	0.74

Source: Primary data, 2022

3.2.5 Budgeting literacy of rural women entrepreneurs

The results in Table 8 revealed that 76.1% of respondents strongly agreed that does the ability to prepare cash budgets help in meeting liabilities as they fall due, 69.6% stated that they prepare written financial objectives of what they want to achieve in a term for their business.

The finding of the study supports Chidi and Shadare (2011) who studied the challenges tackling human resource improvement in SMEs in Nigeria and found that budgeting was the greatest challenge among SMEs. As a result, the study

established that budgeting skills acquired by the managers reflect on the budget procedures followed and the same will correspond with the budget implementation. Mahmood (2008) studied the relationship between budgeting process and SMEs performance and found that, the formalization of the budget will depend on how clearly the relationship of the business and the owners is defined. Joshi et al., (2003) studied budgeting process and performance of companies found out that large companies have a susceptibility to perform an in-depth budget procedure and be able to present it excellently.

Table 8: Budgeting literacy of rural women entrepreneurs

	SD		D		N		A		SA		Mean	St. Dev
	fi	%	fi	%	fi	%	Fi	%	fi	%		
Does the ability to prepare cash budgets help in meeting liabilities as they fall due	0	0.0	2	2.2	6	6.5	14	15.2	70	76.1	4.65	.70

I prepare written financial objectives of what I want to achieve in a term for my business	16	17.4	0	0.0	0	0.0	12	13.0	64	69.6	4.17	1.50
My long-term financial targets influence the managing of my expenses	1	1.1	19	20.7	3	3.3	2	2.2	67	72.8	4.25	1.28
I prepare budgets to help me monitor my performance	17	18.5	2	2.2	12	13.0	12	13.0	49	53.3	3.80	1.55
The set budget is effectively implemented	0	0.0	14	15.2	5	5.4	3	3.3	70	76.1	4.40	1.13
I prepare written financial objectives of what I want to achieve in a term for my business	5	5.4	3	3.3	2	2.2	23	25.0	59	64.1	4.39	1.07
I follow a weekly or monthly plan for expenses	6	6.5	0	0.0	0	0.0	16	17.4	70	76.1	4.57	1.02
Overall view											4.31	1.17

Source: Primary data, 2022

3.2.6 Business expansion among rural women entrepreneurs

The results in Table 9 revealed that 56.5% of respondents strongly agreed that their business has open new branch in different district, 84.8%

stated that total assets of their business have been increased over the last three years, 90.2% stated that their business increased in size over the last 3 years.

Table 9: Business expansion among rural women entrepreneurs

	SD		D		N		A		SA		Mean	St. Dev
	fi	%	fi	%	fi	%	Fi	%	fi	%		
My business has open new branch in different district	9	9.8	7	7.6	0	0.0	24	26.1	52	56.5	4.12	1.32
Total assets of My business have been increased over the last three years	0	0.0	5	5.4	1	1.1	8	8.7	78	84.8	4.73	.74
My business increased in size over the last 3 years	1	1.1	6	6.5	2	2.2	0	0.0	83	90.2	4.72	.88

The number of customers of My business has been increased over the last 3 years	12	13.0	0	0.0	0	0.0	22	23.9	58	63.0	4.24	1.33
The number of employees used by My business has been increased over the last three years	0	0.0	12	13.0	6	6.5	0	0.0	74	80.4	4.48	1.08
Overall view											4.45	1.07

Source: Primary data, 2022

3.2.7 Sales growth among rural women entrepreneurs

The results in Table 10 revealed that 51.1% of respondents strongly agreed that number

of customers has been increased over the last three years, 69.6% stated that their business sales have been increased their volume over the past three years.

Table 10: Sales growth among rural women entrepreneurs

	SD		D		N		A		SA		Mean	St. Dev
	fi	%	fi	%	fi	%	Fi	%	fi	%		
Number of customers have increased over the last three years	12	13.0	8	8.7	22	23.9	3	3.3	47	51.1	3.71	1.49
My business sales have been increased their volume over the past three years	2	2.2	14	15.2	6	6.5	6	6.5	64	69.6	4.26	1.23
More customers are doing a repeat purchase,	21	22.8	12	13.0	4	4.3	8	8.7	47	51.1	3.52	1.71
The volume of goods traded over a period has increased	4	4.3	8	8.7	0	0.0	12	13.0	68	73.9	4.43	1.14
Overall view											3.98	1.39

Source: Primary data, 2022

response that sales among rural women entrepreneurs has been increased at was at high extent.

3.2.8 Profitability among rural women entrepreneurs

The results in Table 11 revealed that 47.8% of respondents strongly agreed that the net income of their business went increasing year by year in the last 3 years, 84.8% stated that their

business proportion of profit to capital invested is encouraging, 87% stated that there have been no instances of spending more than the income attained, 64.1% stated that resources have been effectively spent and objectives achieved.

Table 11: Profitability among rural women entrepreneurs

	SD		D		N		A		SA		Mean	St. Dev
	fi	%	fi	%	fi	%	Fi	%	fi	%		

The net income of my business went increasing year by year in the last 3 years	0	0.0	40	43.5	1	1.1	7	7.6	44	47.8	3.60	1.45
My business proportion of profit to capital invested is encouraging	3	3.3	9	9.8	0	0.0	2	2.2	78	84.8	4.55	1.11
There have been no instances of spending more than the income attained	2	2.2	5	5.4	0	0.0	5	5.4	80	87.0	4.70	.90
Resources have been effectively spent and objectives achieved	11	12.0	14	15.2	0	0.0	8	8.7	59	64.1	3.98	1.53
Overall view											4.20	1.24

Source: Primary data, 2022

3.2.8 Business capital among rural women entrepreneurs

The results in Table 12 revealed that 78.3% of respondents strongly agreed that initial capital of their business has been increased over the last 3 years, 66.3% stated that equity share of their

business is greater than to its liabilities over the last three years, 58.7% stated that their equity (own capital) is increasing compared to their liabilities (short- and long-term debts), 72.8% stated that the capital of their business is sufficient to smoothly meet the operations requirements.

Table 12: Business capital among rural women entrepreneurs

	SD		D		N		A		SA		Mean	St. Dev
	fi	%	fi	%	fi	%	Fi	%	fi	%		
Initial capital of my business has been increased over the last 3 years	0	0.0	12	13.0	2	2.2	6	6.5	72	78.3	4.50	1.04
Equity share of my business is greater than to its liabilities over the last three years	5	5.4	8	8.7	2	2.2	16	17.4	61	66.3	4.30	1.20
My equity (own capital) is increasing compared to my liabilities (short- and long-term debts)	5	5.4	8	8.7	9	9.8	16	17.4	54	58.7	4.15	1.23

The capital of my business is sufficient to smoothly meet the operations requirements	0	0.0	11	12.0	5	5.4	9	9.8	67	72.8	4.43	1.04
Overall view											4.34	1.12

Source: Primary data, 2022

3.3 Relationship between financial literacy practices and rural women entrepreneurship development

The results from the Table 13, indicated high positive significant linear relationship between debt management literacy and rural women entrepreneurship development in Kabarondo Sector at $r = 0.749^{**}$; $p\text{-value} = 0.000 < 0.01$. This means that debt management literacy had a positive impact on rural women entrepreneurship development. The same Table 12 indicated that there is moderate positive significant linear relationship between budgeting literacy and rural women entrepreneurship development at $r = 0.584^{**}$; $p\text{-value} = 0.000 < 0.01$.

Table 13: Correlations coefficient

	X1	X2	X3	X4	X5	Y
X1= Debt management literacy	1					
X2 = Budgeting literacy,	.283**	1				
X3= Banking Services literacy,	-.035	.281**	1			
X4= Bookkeeping literacy	.067	.375**	.201	1		
X5=Savings literacy	.765**	.279**	.127	.306**	1	
Rural women Entrepreneurship development in Kabarondo Sector	.749**	.584**	.706**	.268**	.825**	1
Sig. (2-tailed)	.000	.000	.000	.010	.000	

** Correlation is significant at the 0.01 level (2-tailed).

Source: Primary data, 2022

For the regression test, the analysis in Table 14 generated R-squared value of 0.579(57.9%). This meant that when all the independent variables were taken together, they gave an R-squared value of 0.579(57.9%). Thus, the independent variables (debt management literacy, budgeting literacy, banking services literacy, bookkeeping literacy and savings skills

literacy) taken together could account for up to 57.9% of the total variation in rural women entrepreneurship development in Kabarondo Sector at 95% of confidence interval. The remaining 42.1% in the variation in rural women Entrepreneurship development could be explained by other factors not in the model.

Table 14: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.761 ^a	.579	.524	.19306

a. Predictors: (Constant), X5=Savings literacy, X3= Banking Services literacy, X4= Book keeping literacy, X2 = Budgeting literacy, X1= Debt management literacy,

Source: Primary data, 2021

The ANOVA test in Table 15 indicated an F-value of 13.328 is large than the critical F ($v_1=5, v_2=91$) = 2.32 and also because p-value calculated =0.000 is less than Critical p-value =0.05 level of significant. Therefore, this implies that project team management practices such as:

debt management literacy, budgeting literacy, banking services literacy, bookkeeping literacy and savings skills literacy as independent variable are good predictors of rural women Entrepreneurship development.

Table 15: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.484	5	.497	13.328	.000 ^b
	Residual	3.205	86	.037		
	Total	5.689	91			

a. Dependent Variable: Rural women Entrepreneurship development in Kabarondo Sector

b. Predictors: (Constant), X5=Savings literacy, X3= Banking Services literacy, X4= Book keeping literacy, X2 = Budgeting literacy, X1= Debt management literacy,

Source: Primary data, 2022

The regression results (Table 16) revealed that Budgeting literacy has significance positive effect on Rural women Entrepreneurship development as indicated by $\beta_2= 0.187$, p-value=0.009<0.05, t=3.065. The implication is that an increase of one unit in Budgeting literacy would lead to an increase in rural women

Entrepreneurship development by 0.187 units. Wijewardena and De Zoysa (2011) studied contributions to SMEs towards the budget process and identified that the proper budget is compromised by the two significant aspects of the expected budget process which are the budget planning and the budget control.

Table 16: Regression coefficients

Model	Unstandardized		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
1 (Constant)	.956	.439		2.177	.032
X1= Debt management literacy	.367	.104	.221	3.528	.000
X2 = Budgeting literacy	.187	.061	.135	3.065	.009
X3= Banking Services literacy	.240	.063	.332	3.807	.000
X4= Bookkeeping literacy	.074	.024	.056	3.083	.014
X5=Savings literacy	.438	.129	.259	3.395	.008

a. Dependent Variable: Rural women Entrepreneurship development in Kabarondo Sector

Source: Primary data, 2021

IV. CONCLUSION

This study was conducted to analyze the contribution of Financial Literacy on Rural women

Entrepreneurship Development in Rwanda. The authors used a sample of 92 women located in Kabarondo sector of Kayonza District in the period

of 2017-2021. The study showed a very high extent in terms of debt management, saving skills literacy and that increase of one unit in debt management literacy, budgeting literacy, banking services literacy, bookkeeping literacy and savings skills literacy would lead to increasing the profitability.

The study revealed that most women entrepreneurs don't prepare business annual budget hence business transactions are undertaken based on the prevailing circumstances which leads to impulse expenditure. Therefore, managers need to be trained on budgeting skills and the importance of adherence to the set budget. The study also conclude that knowledge of banking services is necessary as it enable people to understand how banks operate to avoid being surcharged and penalized for failure to comply with terms and conditions associated with services provided.

Acknowledgements

The authors would like to thank all data providers mainly respondents who answered the questionnaire and facilitated the completion of this study.

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APPENDICES

Appendix I: Questionnaire for rural women entrepreneurs in Kabarondo Sector

Dear respondents,

I, Mukawera Margueritte, a finalist student of Master's in International Development Studies at UNILAK, I am required to carry out a study on "The contribution of Financial Literacy on Rural women Entrepreneurship Development in Rwanda with reference of Mukarange and Kabarondo Sector in Kayonza District". I kindly request your assistance by availing time to respond to the questionnaire. A copy of the final report will be made available to you at your request. The information given will be treated with high confidentiality.

Best regards

Section A. Respondent profile

Please tick or fill in space appropriately:

Section A: Identification of project

1. Age: 18 - 25 years
 26 - 45 years
 Above 46 years
2. Marital status: Single
 Married
 Widow
3. Education level: None
 Primary level
 Secondary level
4. Number of years spent in doing business: 2 years
 Between and 4 years
 Between 5 and 7 years
 Above 7 years

Section B: Financial literacy among rural women entrepreneurs in Sector of operation

5. Please indicate your agreement /disagreement with each of the following statements regarding financial literacy among rural women entrepreneurs in your sector of operation by using Likert scale strongly agree(SA)=5, Agree(A)=4, Neutral(N)=3, Disagree(D)=2 and strongly disagree(SD)=1

Debt management	SD	D	N	A	SA
My debt management skills have enabled me to access various sources of finance for my business	1	2	3	4	5
I know the effect of inflation and interest rates on the loans I borrow for my business	1	2	3	4	5
I can determine accurately the total debt position of my business	1	2	3	4	5
I can access finance at a minimum cost	1	2	3	4	5
Saving skills literacy	SD	D	N	A	SA
Personal savings skills helped me reduce expenditures, such as impulse buying	1	2	3	4	5
Personal Savings helped me focus on the kind of investment I wanted to do	1	2	3	4	5
Personal savings did not help me increase investment.	1	2	3	4	5
I save a portion of my business monthly income	1	2	3	4	5
I plan to use my savings for future growth of my business	1	2	3	4	5
Bookkeeping literacy	SD	D	N	A	SA
I prepare financial statements for your business (income statement, balance sheet)	1	2	3	4	5
I can perform financial Analysis on your business financial statements (gross profit margin, net profit margin, current ratio)	1	2	3	4	5
I have adequate knowledge on how to maintain and balance ledger accounts	1	2	3	4	5
My decisions are guided by information from my financial statements	1	2	3	4	5
Bookkeeping knowledge has enabled management to prepare the financial statements	1	2	3	4	5
Proper bookkeeping has led to effective stock management	1	2	3	4	5
Banking services literacy	SD	D	N	A	SA
Access to banking services skills have helped me secure loans for	1	2	3	4	5

businesses expansion					
My debt management skills have enabled me to access various sources of finance for my business	1	2	3	4	5
I can determine accurately the total debt position of my business	1	2	3	4	5
Access to banking services skills have equipped me with necessary skills for managing business account to transact day-to-day affairs	1	2	3	4	5
Access to banking services skills have equipped with necessary skills on how to use cheques, credit cards, bank drafts	1	2	3	4	5
Aspects of budgeting literacy	SD	D	N	A	SA
Does the ability to prepare cash budgets help in meeting liabilities as they fall due	1	2	3	4	5
I prepare written financial objectives of what I want to achieve in a term for my business	1	2	3	4	5
My long-term financial targets influence the managing of my expenses	1	2	3	4	5
I prepare budgets to help me monitor my performance	1	2	3	4	5
The set budget is effectively implemented	1	2	3	4	5
I prepare written financial objectives of what I want to achieve in a term for my business					
I follow a weekly or monthly plan for expenses					

Section C: Level of rural women entrepreneurship development in Kabarondo Sector

Complete the following questionnaire regarding the level of rural women entrepreneurship development among rural women entrepreneurs in Kabarondo Sector on a scale of 5 = strongly agree (SA), 4 = agree (A), 3= Neutral (N), 2= Disagree (D) and 1 = strongly Disagree (SD), and tick appropriate cases where necessary

Statement	SA	A	N	D	SD
Business expansion					
My business has open new branch in different district	1	2	3	4	5
Total assets of My business have been increased over the last three years	1	2	3	4	5
My business increased in size over the last 3 years	1	2	3	4	5
The number of customers of My business has been increased over the last 3 years	1	2	3	4	5
The number of employees used by My business has been increased over the last three years	1	2	3	4	5
Increase of sales	SA	A	N	D	SD
Number of customers has been increased over the last three years	1	2	3	4	5
My business sales have been increased their volume over the past three years	1	2	3	4	5
More customers are doing a repeat purchase,	1	2	3	4	5
The volume of goods traded over a period has increased	1	2	3	4	5
Profitability	SA	A	N	D	SD
The net income of my business went increasing year by year in the last 3 years	1	2	3	4	5
My business proportion of profit to capital invested is encouraging	1	2	3	4	5
There have been no instances of spending more than the income attained	1	2	3	4	5
Resources have been effectively spent and objectives achieved	1	2	3	4	5
Business capital	SA	A	N	D	SD
Initial capital of my business has been increased over the last 3 years	1	2	3	4	5
Equity share of my business is greater than to its liabilities over the last three years	1	2	3	4	5
My equity (own capital) is increasing compared to my liabilities	1	2	3	4	5



(short- and long-term debts)					
The capital of my business is sufficient to smoothly meet the operations requirements	1	2	3	4	5

1. To what extent does financial literacy helps rural women entrepreneurship to be empowered in Kabarondo Sector?

.....
.....

2. How do stakeholders involve in women entrepreneurship to be empowered economically?

.....
.....

3. What are the challenges faced by rural women in expanding their business in Kabarondo Sector?

.....
.....

4. What are the strategies to empower women economically in rural environment?

.....
.....

Thank you for your participation!