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Borrower Financial Literacy and Credit Decision Rationality Amongst People Who Take Loans from Money Lenders in the Major Urban Areas of Uganda

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ABSTRACT

This research study was carried out to establish the relationship between financial literacy and credit decision rationality amongst people who take loans from money lenders in the major urban areas of Uganda. Focusing on the relationship was based on the need to establish whether credit decision rationality of these borrowers was based on their level of financial literacy. The concept of financial literacy was conceptualized by assessing the three key measures of financial literacy;- financial knowledge, financial skills, and financial behavior. Based on this conceptualization, three hypotheses were formulated and tested. The people that take loans from money lenders in the major urban areas of Uganda were considered to form the population of the study. A maximum sample of 385 [as recommended by Krejcie and Morgan (1970)] was selected. A 93% response rate was realized. Correlation and regression analyses were carried out to test the hypotheses. The results indicated that financial literacy has a 19.4% influence on changes in credit decision rationality of people that take loans from money lenders in the major urban areas of Uganda. Additionally, the results indicated that financial behavior has the highest significant association with and influence on credit decision rationality, followed by financial skills. Financial knowledge also has influence on credit decision rationality though the influence is not statistically significant. Based on these results, it is recommended that, financial literacy be enhanced amongst Ugandans, especially those that tend to take loans from money lenders. In the process of enhancing financial literacy, there is need to put emphasis on attaining or instilling appropriate financial behavior that can enable a person reduce his or her debt burden.

Keywords: Credit decision rationality, financial knowledge, financial skills, financial behavior, Rationale to take credit, money lenders in Uganda.

INTRODUCTION

Taking credit is most times considered to be inevitable as long as a person is in the category of the "haves not" [1]. Ideally, in a social setting, there are people regarded as surplus spenders and others regarded as in need of cash to spend most, if not all the time. Financial institutions play a significant role to bridge the two groups of people. Those with surplus financial resources deposit them into a financial institutions from where the people in need of extra cash to spend find the financial resources and request to be provided with some. This request is technically referred to as borrowing. Without financial institutions, therefore, it would be difficult for the people in the category of deficit spending to get reasonable funds to finance their expenses [2]. Though there has been formation of financial institutions in a social setting, the legal regime that is associated with borrowing has often times made it difficult for the borrowers to get the needed funds within the needed time frame [3]. This has been frustrating to the borrowers especially when the funds are needed to solve an impending social problem [4, 5] such as paying for hospital bill or purchasing a lucrative piece of land. This psychological dissatisfaction of the borrowers created a demand for alternative sources of funds to fund deficit spending [6].

Creation of SACCOs, MDIs and establishment of informal lending has been the outcome of the psychological dissatisfaction of borrowers in the main stream financial institutions mainly composed of commercial banks and other forms of banks. Informal lending takes a special place of the three outcomes of psychological dissatisfaction identified because the former are legally recognized institutions while the latter is not. Though un-recognized, the latter has a section of people that it serves. In developing countries like Uganda, majority of deficit spenders may prefer to approach an informal money lender instead of a bank. This could be attributed to the effect of band wagon or possibly the simplicity with which money is secured from the informal lenders [7].

The preference of where to borrow from constitutes the concept of "credit decision rationality". Circumstantial evidence provides support for deficit spenders to seek help from the informal lenders. It is however not obvious whether this decision (credit decision rationality) is also based on the level of financial literacy of the borrower. It could be possible that the borrower (deficit spender) could be financially literate [21]. It is also possible that the borrower could be financially illiterate and makes a decision to borrow from a money lender based on only what he (or she) hears from the peers. This quest necessitated a research study to be conducted to establish the extent to which credit decision rationality in Uganda is hinged on the financial literacy of the borrower with specific focus on informal lending [8].

LITERATURE REVIEW

Credit decision rationality focuses on reasonable choice making process to take credit decision. The reasonableness is conceptualized in the aspect of rationality. When a person decides to take credit, there is always the aspect of the source of credit and how accessible that credit is. Though accessibility may be an important factor, it is possible that a potential borrower chooses security of future financial dealings. This is associated with legal protection of the borrower, should anything go wrong in the borrower-lender relationship [21].

Focusing on the aspect of relationship, it is possible that a lender may be provided with ready-to-take funds but refuse the funds because such funds may have a potential of damaging possible future relations [9]. One possible scenario in this direction is that of borrowing from

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informal lenders especially considering that informal lending is not backed by a recognizable legal regime [10]. It is on this basis that it is referred to as informal. Lack of the legal regime governing the lending process makes it difficult to enforce especially when the borrower and the lender are not known to each other [11, 12].

Though it is difficult to enforce, the lenders tend to issue out contracts of sale or purchase to their clients. This therefore means that the informal lender poses as a buyer and the money advanced as loan is considered to be the purchase consideration. Because of the urgency of the situation, the borrowers tend to accept these terms of service. The total interest amount is always embedded within the purchase contract value. It is on this basis that the borrower manages to access financial assistance in form of informal loans from the informal lenders [13]. The arrangement that requires to sign a sale agreement of personal property creates a sense of fear on the side of the borrower especially when the property included in the sale agreement is the only property that the borrower has. It is at this point that a borrower may take a decision to withdraw from accessing the money from the informal lenders [11]. Though this may be a good decision, the urgency of the money as determined by the problem to be attended to by the borrower may not allow the borrower to refuse the money. The borrower is likely to receive the money with hope that he (or she) shall be able to raise substantial amount of funds to repay the informal loan before the expiry of the loan period. Ideally, the expiry of the loan period brings into effect the sales agreement and the informal lender gets the right to access the property of the borrower since the sale agreement would have given him (or her), as the informal money lender, the legal power to possess the property of the borrower [9].

If the informal lender exercises the power of the sale agreement, the borrower loses the property [13]. This makes requesting for loans from the money lenders a challenging thing to consider for many potential borrowers. The catch point is however on the swift processing of the loan request. The swiftness notwithstanding, there is need to appreciate that there are times when the urgency of a problem is self-created. This means that the need for money may be differed especially when failure to respond to the need does lead to loss of life. This kind of reasoning is key in taming the insatiable need and or demand for money [12].

The personal financial discipline to know when to take a loan and when not to take a loan is therefore an important behavioral trait for everyone to acquire [14]. This is especially relevant when the behavior can save someone from getting into a debt trap. This kind of behavior is sometimes referred to as prudence in financial dealings. Through careful personal planning, many financial challenges are likely not to be faced [22].

In the dimension of personal finance, prudence is the concept of concern since it helps to differentiate a successful person from an unsuccessful person. A person who applies the principles of prudence is expected to know his (or her) financial needs and plan his (or her) available financial resources carefully to respond to those needs. This forms a combination of personal financial knowledge and the needed behavior to effectively handle personal finance [15].

Combination of the knowledge of personal finance and the discipline to manage personal finance enables one to develop the personal financial management skills. When this is achieved, then financial decisions are expected to be made from an informed point of view [16]. This kind

of practice has the potential to enhance personal finance of an individual. It is through these practices that an individual is considered to have acquired appropriate financial literacy levels [14].

The importance of financial literacy in the process of managing personal finance hypothesizes that financial literacy has the ability to determine the decisions that a person takes with regards to the management of personal finance [2]. This includes the decision to take a loan or not as well as the source of the loan itself. Though there is no direct link between the two, the fact that good financial literacy is associated with good financial discipline, then there is a high likelihood that it may also be associated with good credit decisions taken by an individual. This position is however not conclusive unless there is empirical evidence to support it [16].

With regards to credit decisions and consequences of such decisions, leaders of different countries have managed to address the negative consequences differently. For instance, in India, there is a strong presence of cultural shame in the sense that when a person is reported as not to have paid up his (or her) loan amount will be publicly shamed. This is a social pressure that no borrower would want to go through. Because of this, the borrowers tend to want to repay their loans within the loan period or request for an extension when necessary [17].

In the case of Uganda, the cultural influence is not that strong. Because of this, it is not possible to apply the technique of India. In response to the inequity in the money lending activities in the country, the government of Uganda, through the ministry of finance, put in place a regulation that govern money lending business in the country. This regulation governs the operations of all money lending activities such as those carried out by SACCOs, MDIs, and money lenders who were previously not governed by any law. This was necessary to regulate the activities of all those involved financial transactions but not regulated by the Financial Institutions Act. The regulation that the government enacted to govern the non-banking institutions that carry out financial transactions is the Tier 4 Microfinance Institutions and Money Lenders Act, 2016 (the Act) [11].

The comparison between India and Uganda indicates the need to focus on the social and environmental factors when addressing the issues of credit decision rationality [18]. This research followed the Ugandan context with specific focus on the possibility of financial literacy enhancing the status of credit decision rationality in the country [8]. It on this basis that the study was carried out.

HYPOTHESIS DEVELOPMENT AND CONCEPTUAL FRAMEWORK

Based on the detailed review of literature, hypotheses were developed for testing. The focus of the hypothesis development process was the realization of credit decision rationality in the context of money lenders in Uganda.

The review of literature suggests that the level of financial literacy has influence on the nature of credit decision rationality of a borrower [6]. What is important to note here is that there are different dimensions to financial literacy which need to be considered when assessing the impact of financial literacy on the nature of credit decision rationality of a borrower. On this note, the following hypotheses were derived for testing in this research;

H_1 = There is a relationship between the level of financial literacy and nature of credit decision rationality in the major urban centers of Uganda
H_2 = There is a relationship between the level of financial knowledge and nature of credit decision rationality in the major urban centers of Uganda
H_3 = There is a relationship between the quality of financial behavior and nature of credit decision rationality in the major urban centers of Uganda
H_4 = There is a relationship between the quality of financial skills and nature of credit decision rationality in the major urban centers of Uganda

The development of the hypotheses was extended further to the design and presentation of the conceptual framework. The framework provides the visual presentation of the relationships that were studied in this research. This was considered necessary to provide an augmented view of the hypotheses presented and the entire research that has been carried out. The conceptual framework is presented in Figure I below.

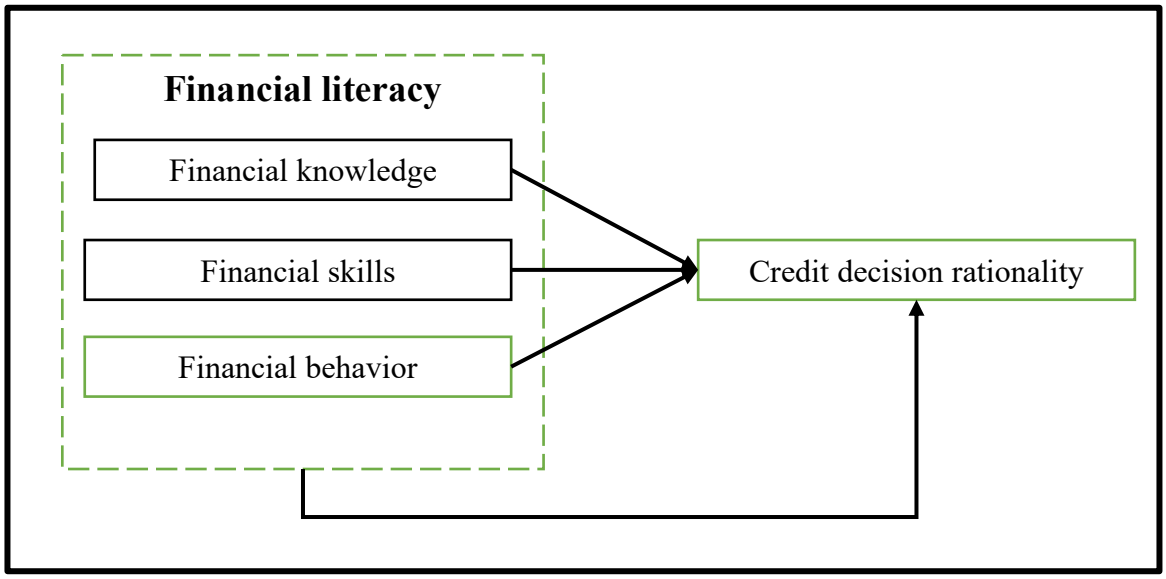


Figure I: The conceptual framework

The conceptual framework indicates two kinds of relationships. The kind is the causal relationship between the independent variables (financial literacy) and the dependent variable (credit decision rationality). The second kind is also a causal relationship. The second causal relationship is however between the dimensions that make up financial literacy and credit decision rationality. The second relationship helps to indicate the components of financial literacy that have the highest influence on credit decision rationality [5]. This is revealed by the findings that were obtained from the analysis of the data collected in this study.

METHODOLOGY

A quantitative research design was followed when conducting this study. The design was selected because of the need to use inferential statistics to establish whether credit decision rationality is indeed influenced by financial literacy in the major urban areas of Uganda. In line with the quantitative research design, critical realism ontology and objectivist epistemology were used. These two were necessary to consider to ensure that objectivity is maintained within the social context of the respondents involved in the study. The social context was

aligned to the social behavior of borrowers in the major urban areas of Uganda, inclusive of which are Kampala, Mbarara, Mbale and Gulu.

The context of this study was money lending. On that note, the population of the respondents that were involved in this study was composed of the people that borrow from money lenders in the major urban areas of Uganda. Money lending business in Uganda is regulated by the Uganda Microfinance Regulatory Authority (UMRA) [11, 19]. Though this is the case, the authority does not have a list of the number of borrowers that a money lender serves in a given period of time. Lack of this information made it necessary to consider that the population of the borrowers that was considered in this study was infinite [too large]. Based on this description, maximum sample size of 385 respondents was considered in this study [20].

The sampling process followed two approaches. The first approach was the purposive approach. This approach helped in the identification of the potential group to sample from. A simple random approach [the second approach] was then used to select the final group that was involved in this study.

Questionnaire approach was used to collect data from the respondents. Each respondent was given a maximum of 5 days to fill in the questionnaire and return it to the researcher. The responses were collected, and reviewed to ensure completeness and error free responses. The analysis of the responses was thereafter carried out using a quantitative approach. In the process of carrying out the analysis, the researcher was interested in assessing whether the variables selected had a good model fit. Using this output, reliable inferential statistics were carried out to respond to the research objectives.

MEASUREMENT OF VARIABLES AND EXPECTED OUTCOME

Based on the conceptual framework considered in this study, four variables were considered in this study. One variable was the dependent variable and the other three were the independent variables. The focus of this study was to establish whether financial literacy has influence on credit decision rationality of the borrowers amongst the people who borrow from money lenders in the major urban areas of Uganda. Financial literacy was measured using three sub-variables namely financial skills, financial knowledge and financial behavior. The sub-variables are considered together with the main independent variable in this study.

A five point likert scale was used to measure the responses from respondents in a scale of 1 to 5. Five reflected “Strongly Agree” and one reflected “Strongly Disagree”. The influence of the independent variable(s) on the dependent variable was measured based on the priori “$\beta > 0$” for all independent variables. More information about this is presented in Table I.

Table I: Measurement of variables and expected impact

N	Variables	Measurement	Expected Impact	A priori
	Dependent Variable			
	Credit decision rationality (CDR)	Five point Likert Scale with coding grading from strongly disagree to strongly agree		
	Independent Variables			
2	Financial knowledge (FinKnw)	Five point Likert Scale with coding grading from strongly disagree to strongly agree	+	$\beta_2 > 0$
3	Financial Skills (FinSki)	Five point Likert Scale with coding grading from strongly disagree to strongly agree	+	$\beta_3 > 0$
4	Financial behavior (FinBeh)	Five point Likert Scale with coding grading from strongly disagree to strongly agree	+	$B_4 > 0$

Model specification

The measurement of variables presented in Table I provided the basis for model specifications that were considered in this study. The model specifications were further based on the conceptual framework and the hypotheses developed. The models that were specified for this study are presented below:

$CDR = \alpha + \beta_1 FinKnw + \beta_2 FinSki + \beta_3 FinBeh + e$ 1

$CDR = \alpha + \beta_1 FinKnw + e_1$ 1.2

$CDR = \alpha + \beta_2 FinSki + e_2$ 1.3

$CDR = \alpha + \beta_3 FinBeh + e_3$ 1.3

Where;

CDR = SME Sustainability
FinKnw = Financial Knowledge
FinSki= Financial Skills
FinBeh = Financial behavior

ANALYSIS AND DISCUSSION OF FINDINGS

The analysis exercise was divided into two major sections. The first section involved conducting tests to test the suitability of the data to be considered for parametric analysis. The second part of analysis has information about the parametric analyses that were carried out in this study. Inferential statistics formed the main output from the parametric analyses carried out.

a) Factor analysis

This was the first step to check the suitability of the data that was considered in this study. Both, explanatory factor analysis and confirmatory factor analysis were carried out.

Explanatory factor analysis

The results are presented in Tables II, III and IV.

Table II: EFA Output - Financial knowledge

Code	Question	Factor Loading
FINLK7	I can easily open a bank account	.742
FINLK8	I can easily use bank account	.727
FINLK9	I can easily handle financial matters	.620
FINLK10	I can easily compare commercial bank loans against money lenders loans	.605

Source: Primary data

Table III: EFA Output - Financial skills

Code	Question	Factor Loading
FINLS1	I have the ability to prepare a personal budget	.573
FINLS7	I am financially capable of making good use of financial products/services	.598
FINLS8	I have the ability to manage money	.812
FINLS10	I am capable of handling future needs	.813

Source: Primary data

Table IV: EFA Output - Financial behavior

Code	Question	Factor Loading
FINLB8	I always spend by sticking to budgets	.520
FINLB9	I compare processes before making choices on any loan	.513
FINLB10	I am always willing to pay bills	.562
FINLB11	I always keep a close watch on personal financial affairs	.627
FINLB12	I always have financial goals and plan to achieve them	.609
FINLB13	I am always responsible when it comes to financial matters	.785

Source: Primary data

The results from the Explanatory Factor Analysis indicate that there are some question items that were dropped because they did not have sufficient factor loadings. The question items presented in Tables 2, 3 and 4 are those items that passed the factor loading threshold of 0.5. The extracted items were, at this point, the items that formed the respective variables (*Financial knowledge, Financial skills and Financial behavior*). There was, however, a need for the items extracted to be confirmed. This was done by carrying out the confirmatory factor analysis.

b) Validity and reliability analyses results

Before carrying out the confirmatory factor analysis (CFA), there was a need to test whether the results obtained from EFA passed the validity and reliability tests. It was, therefore, necessary to establish the reliability and validity results before confirming the factors extracted using the EFA. The combination of Average Variance Extracted (AVE) and Composite Reliability (CR) was used to check the level of validity of the tools that were used in this study. The reliability was tested using the Composite Reliability (CR) computation. Using the data obtained

in this study, the AVE and CR computations were carried out. The results of these tests are presented in Table V.

Table V: Validity and Reliability test results

		Variable code	Variable	λ	λ^2	δ	AVE	CR
FINLK9	<---	FinKnw	Financial knowledge	0.620	0.384	0.616	0.488	0.740
FINLK8	<---	FinKnw		0.727	0.529	0.471		
FINLK7	<---	FinKnw		0.742	0.551	0.449		
FINLS10	<---	FinSki	Financial skills	0.813	0.661	0.339	0.502	0.797
FINLS8	<---	FinSki		0.812	0.659	0.341		
FINLS7	<---	FinSki		0.598	0.358	0.642		
FINLS1	<---	FinSki		0.573	0.328	0.672		
FINLB13	<---	FinBeh	Financial behavior	0.785	0.616	0.384	0.460	0.716
FINLB12	<---	FinBeh		0.609	0.371	0.629		
FINLB11	<---	FinBeh		0.627	0.393	0.607		

Source: Primary data

Key:
λ = Standardized regression weight (Estimate)
δ = Deviation ($1 - \lambda^2$)
The results presented in Table V indicate that three question items were dropped in the variable of "financial behavior". These are presented below;

FINLB8: I always spend by sticking to budgets
FINLB9: I compare processes before making choices on any loan
FINLB10: I am always willing to pay bills

One additional question was dropped after the validity and reliability test carried out. This question item was attached to the variable of "financial knowledge. This question item is presented below;
FINLK10: I can easily compare commercial bank loans against money lenders loans
After the validity and reliability analysis, there were question items that were retained. To ascertain whether the retained question items were fit for further analysis, it was necessary to test them in the confirmatory factor analysis.

c) Confirmatory Factor Analysis

This was carried out using AMOS Software. The results from this analysis are presented using the statistics as well as a diagram. They are presented below (Figure II).

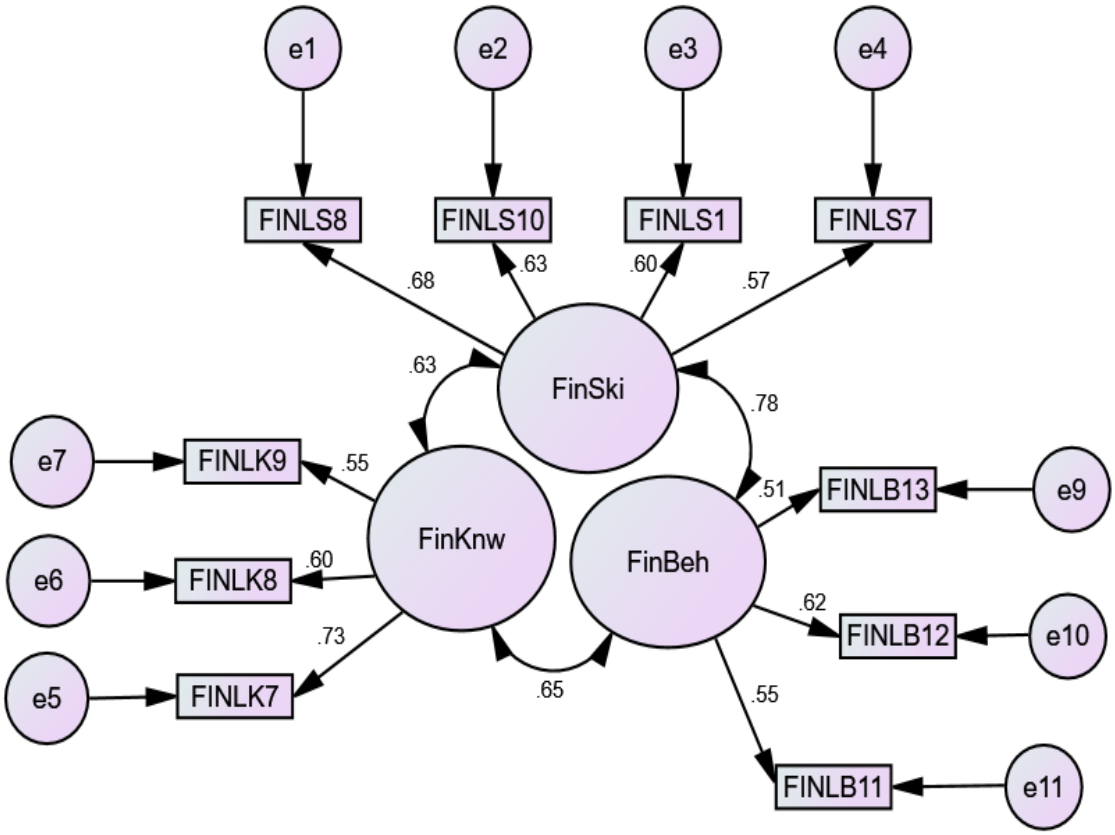


Figure II: Confirmatory Analysis Output
Source: Primary data

Additional to results presented in Figure II, are the key statistics that help determine whether the model had a good fit. These statistical outputs are presented in Table VI.

Table VI: Model Fit Indices – Financial Literacy

Statistics	CMIN/DF	GFI	AGFI	RMSEA	NFI	CFI
Values	2.301	0.961	0.932	0.060	0.904	0.943

Source: Primary data

The results obtained and presented in Table 6 indicate that the variables considered together with the question items that were used to form them had a good model fit. This further means that the variables established from EFA and CFA could then be used to carry out final analysis.

d) Inferential analysis

Inferential statistics were considered because the results from the initial assessment of parametric assumptions had results indicating that parametric analysis could be carried out. Based on the research hypothesis, correlation and regression analyses were carried out. The correlation analysis was carried out to test the level of association between the independent variables and the dependent variable. The regression analysis, on the other hand, was carried to ascertain whether the independent variables had influence on the dependent variable. The results from these analyses are presented in the subsections that follow.

Correlation analysis

The results from correlation analysis are presented in Table 7.

Table VII: Results from correlation analysis

	1	2	3	4
Financial knowledge (1)	1			
Financial skills (2)	.461**	1		
Financial behavior (3)	.400**	.504**	1	
Credit Decision Rationality (4)	.217**	.369**	.400**	1

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

Source: Primary data

Correlation analysis results revealed that all the independent variables had a significant association with the dependent variable. The highest association was however registered between financial behavior and credit decision rationality (r = 0.400; p-value ≤ 0.01). This was followed by the association between financial skills and credit decision rationality (r = 0.369; p-value ≤ 0.01) and lastly between financial knowledge and credit decision rationality (r = 0.217; p-value ≤ 0.01).

These results indicate that financial behavior of borrowers has a higher association with credit decision rationality as compared to the other independent variables. This infers that the changes in the behavior of the borrowers is closely related to the changes in the credit decision rationality levels that these borrowers consider. This is further associated with the eventual credit decisions that these borrowers make. This level of association suggests that the independent variables have a significant influence on the dependent variable. To ascertain this, the regression analysis was carried out.

Regression analysis

The results from regression analysis are presented in Table 8.

Table VIII: Results from regression analysis

	Unstandardized Coefficients		**Standardized Coefficients**	**t**	**Sig.**
	B	**Std. Error**	**Beta**		
(Constant)	1.978	.160		12.359	.000
Financial knowledge	.040	.036	.061	1.116	.265
Financial skills	.136	.038	.205	3.560	.000
Financial behavior	.182	.038	.271	4.772	.000
Dependent variable:	Credit Decision Rationality				
R:	0.448				
R square:	0.200				
Adjusted R Square:	0.194				
F-statistics:	29.561				
Model Sig:	0.000				

Source: Primary data

Output from regression analysis indicates that there are only two variables that had statistically significant influence on credit decision rationality. These are financial skills (Beta = 0.205; Sig = 0.000) and financial behavior (Beta = 0.271; Sig = 0.000). Comparing the two statistically influential independent variables, financial behavior stands out as the most influential independent variable on credit decision rationality.

Financial knowledge is also another independent variable with influence on credit decision rationality amongst borrowers in the major urban areas of Uganda. This variable, however, does not have statistically significant influence on credit decision rationality.

Regression results confirm the correlation results which indicated that financial behavior had the highest level of association with credit decision rationality. This means that financial behavior has the highest significant association with and influence on credit decision rationality amongst people who borrow money from money lenders in major urban areas of Uganda.

The results from regression analysis further indicate that financial literacy, which is composed of financial knowledge, financial behavior and financial skills, has 19.4% influence on credit decision rationality of the people who borrow from money lenders in the major urban areas of Uganda. This means that there are other factors that determine credit decision rationality of these borrowers, but financial literacy influences 19.4% of the changes in credit decision rationality of these borrowers.

CONCLUSION AND RECOMMENDATION

The outcome of this research study indicates that financial behavior is the most important factor that borrowers of money need to always consider. The behavior of someone determines whether a person will end up being successful or failure. Though behavior is an output of knowledge and exposure, an individual has the ability to take control of his or her behavior [12]. This general knowledge with regards to behavior is also reflected in the analysis results of this research study. Though the behavior referred to in this study is not the general behavior, the financial behavior is not much different from the general behavior since they both influence actions and reactions of the people who possess such behavior. It is of paramount importance, therefore, that the behavior change from the financial point of view be considered for all those involved in taking loans from money lenders in the major urban areas of Uganda.

In line with behavior change, it is important to note the relevance of financial skills in influencing credit decision rationality. The more skilled a person becomes, from the financial point of view, the more capable that person is expected to become when making financial decisions. Though skills could be derived from knowledge, they (skills) are more visible as compared to knowledge.

Based on the findings of this research study, and the subsequent conclusion, it is recommended that, financial knowledge should be used to improve financial skills which will eventually enhance good financial behavior. This is expected to significantly influence borrowers in their credit decision process.

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