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Loan repayment among group borrowers in Tanzania: the role of relationship quality

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Abstract

Although the social capital, in terms of stronger interpersonal relationships between group borrowers, has been found to exert a positive impact on group loan repayment, there is no existing research that has endeavored to study the influence of relationship quality between individual group borrowers on group loan repayment. Therefore, this study seeks to understand the impact of relationship quality and its dimensions on group loan repayment using data gathered from a survey of 450 joint liability borrowers. The data was analyzed using structural equation modeling (SEM). Findings indicate that relationship quality and its dimensions do not influence group loan repayment, suggesting that follow-up loans provide incentives to repay. Commitment, trust, and satisfaction are affirmed as dimensions of relationship quality between individual group members, with trust exerting the strongest influence. Potential group borrowers need to self-select and screen each other based on relationship quality factors, particularly trust, to reduce opportunistic behavior.

Keywords: Relationship quality, Group loan repayment, Joint liability lending

Introduction

One of the microfinance lending models that dominate the microfinance business is the group lending model [31]. It is the main lending model used by microfinance institutions (MFIs) to lend to poor people who do not have traditional collateral [35]. The main aspect of this lending arrangement is that group borrowers are responsible for repaying the loans of their peers in the case of default [2]. As a result, the approach enables needy individuals to gain access to funding by using group joint liability as collateral. Despite numerous advantages of group lending, researchers have uncovered that it is costlier for borrowers who are more committed than others, as they are frequently needed to repay the group loan on behalf of their defaulting group members, leading to high dropout and discouragement to new borrowers, making the model inappropriate [34].

In an effort to enhance access to financing for those who are excluded from formal financial institutions and combat poverty, the Tanzanian government introduced MFIs [30]. As a result, numerous MFIs have been founded, giving the underprivileged good access to financing [31]. However, MFIs confront difficulties including borrowers who find it difficult to repay the loans, multiple borrowing, excessive debts, dishonesty, and opportunistic behaviors, just to name a few [30]. Few devoted and honest group members have therefore been overburdened by repaying group loans on behalf of their defaulting colleagues as previously mentioned. This situation has raised concerns among academics and policymakers [59], which has driven this study's focus on determining if better relationships between group borrowers would lessen opportunistic behavior and enhance group loan repayment.

Although relational social capital, in terms of stronger interpersonal relationships between group borrowers, has been found to influence positively group loan repayment [49, 51], there has been no prior research that has sought to investigate the impact of

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relationship quality (RQ) on group loan repayment. Palmer [47] points out that, in contexts where relationships between partners matter, RQ is a key source of superior performance. Since group lending involves a high level of interpersonal interaction and social bonds, and individual group borrowers perceive relationships between one another as being more important [49, 51], the construct of RQ is relevant in this context.

Further, relationship matters in the context of group lending because individual group borrowers have mutual goals and are vulnerable to opportunistic behavior [17]. This study contends that individual group borrowers can rely on RQ to enhance group loan repayment by reducing moral hazard and restricting opportunistic behavior. Cassar et al. [16], Pellegrina et al. [49], and Postelnicu et al. [51] show evidence that social homogeneity between group borrowers is important for group loan repayment.

According to Tegambwage and Kasoga [58], there is a lack of consensus about the number and nature of RQ dimensions because the RQ construct is context and culture-specific. Thus, the antecedents of RQ in the context of group lending in the microfinance industry are not clear. However, RQ is generally recognized as a higher-order construct consisting of several components, such as satisfaction [17], trust [44] and commitment [44]. Since commitment, trust, and satisfaction have been widely studied and employed as dimensions of RQ by numerous empirical studies in different contexts e.g., [58, 62, 64], this study will test their ability to predict RQ in the context of group lending. To the best of the researchers' knowledge, no study has investigated the antecedents of RQ in the context of group lending in the microfinance industry.

Therefore, the objectives of this study are to investigate the antecedents of RQ in the context of group lending in the microfinance industry, and to determine the impact of RQ and its antecedents on group loan repayment. Such knowledge is vital for better management of the relationship between individual group borrowers and in achieving a higher level of group loan repayment. If the RQ between individual group borrowers is not well developed and maintained, the group lending model may become inappropriate due to high perceived risk [33], making efforts to help poor people to access finance and alleviate poverty futile.

The rest of the paper is structured as follows. The existing literature is reviewed to develop the conceptual model and hypotheses. Then, the research methodology, the presentation of results and the discussion of the findings follow. Finally, the summary and conclusions of the study are presented.

Literature review

Conceptual framework

RQ lacks a commonly agreed definition and metric [29]. However, there is some consensus in defining it as the overall strength of a relationship and the extent to which it fits the parties' wants and expectations [46]. In terms of RQ measurements, the current study uses the conceptualizations of RQ developed by Morgan and Hunt [44] and Crosby et al. [17]. According to Crosby et al. [17], RQ is a high-order concept with two dimensions: trust and satisfaction. In their commitment-trust hypothesis, Morgan and Hunt [44] claim that trust and commitment are two primary constructs for gauging RQ. Numerous studies on RQ have integrated these two research viewpoints and conceptualized RQ as a second-order construct with commitment, trust, and satisfaction as dimensions, drawing on these two seminal articles and acknowledging the essential role of trust, commitment, and satisfaction in strengthening RQ [5, 37, 55, 62, 64]. However, according to these authors, the operationalization of RQ as a higher-order construct is intensely impacted by the context of the research.

Given the above investigations, this study conceptualizes RQ, with regard to group lending, as "the general strength of a relationship and the extent to which it meets the needs and expectations of the group members." Furthermore, it asserts that RQ is a higher-order construct comprised of three independent but linked components: commitment, trust, and satisfaction. This implies that high levels of RQ between group members are reflected by high levels of relationship commitment, trust, and satisfaction. These three dimensions have also been broadly studied and considered as the building blocks of RQ [37, 55, 62, 64]. This conceptualization corresponds well with the most appropriate settings for RQ and its long-term and predominantly interpersonal nature [17, 44]. It is also suitable to the context of group lending in the microfinance industry.

Research model and hypotheses

The research model that was developed and tested in the current study is depicted in Fig. 1. It explains group loan repayment in a group lending context. Based on Crosby et al. [17] and Morgan and Hunt [44], conceptualizations of the RQ construct, commitment, trust and satisfaction are the assumed antecedents of RQ in the context of group lending in the microfinance industry. These three dimensions are the most widely used components of RQ in prior studies [58, 62, 64] and have been referred to as the building blocks of relationship quality [64]. Furthermore, as mentioned earlier, group lending involves a high level of interpersonal interaction and social bonds, and

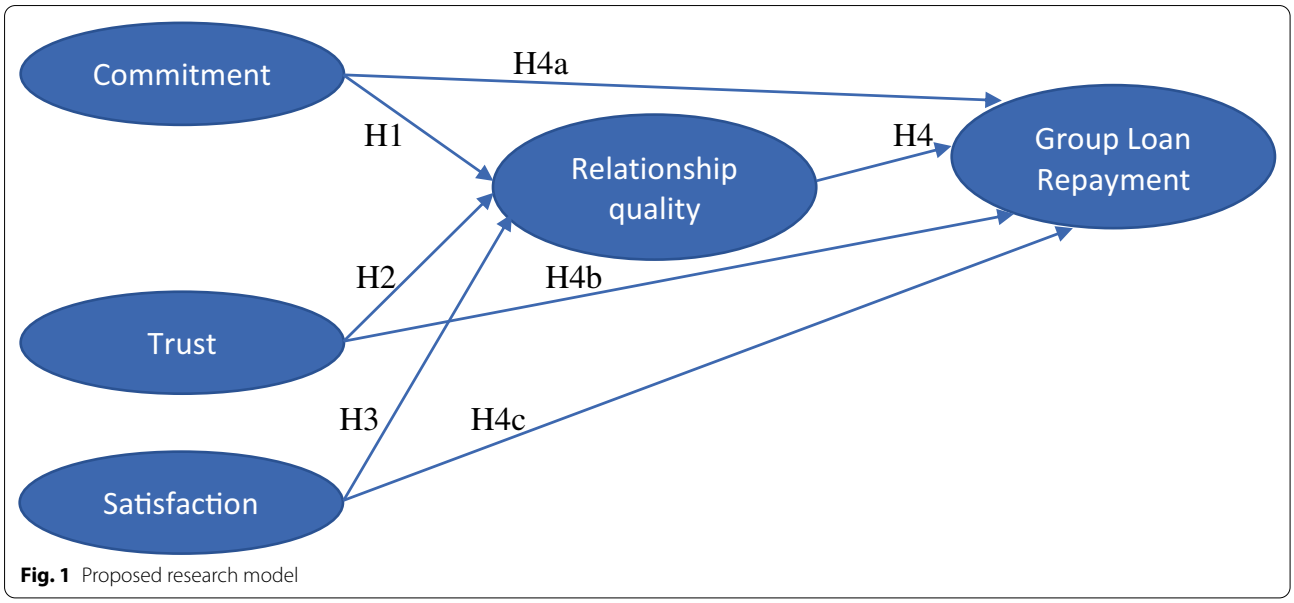

Fig. 1 Proposed research model

relationships between individual group borrowers are considered important for group loan repayment [16, 49, 51]. Accordingly, the research model considers RQ as a second-order construct and its individual dimensions, namely commitment, trust and satisfaction as predictors of group loan repayment. The sub-sections that follow develop the support for these relationships and propose research hypotheses.

Relationship commitment and RQ

Relationship commitment has been defined as an exchange partner believing that a continuing relationship with another is so vital as to demand maximum efforts at preserving it; that is, the committed party believes the relationship is worth working on to ensure that it persists indefinitely [44]. Relationship commitment, according to these authors, is crucial to RQ. According to Berry and Parasuraman [14], relationships are created on the foundation of mutual commitment. Wisker [62] and Yeo and Lai [64] agree that commitment is an important aspect of RQ. One of the most frequently researched primary drivers of RQ is relationship commitment [64].

Commitment in the context of group lending can be considered as the individual group members' firm and constant motivation to preserve a valued connection with one another. It is the desire to maintain contact with group members in order to achieve similar goals such as group loan repayment and access to future loans. As a result, a committed group member is expected to repay his or her portion of the group loan in order to maintain good relationships with other members of the group. Based on the preceding results and reasoning, it is possible to hypothesize:

H1 Relationship commitment between individual group borrowers is positively related to RQ.

Trust and RQ

Trust exists when one party has faith in an exchange partner's dependability and honesty [44, 56]. These authors argue that trust is important to all relational exchanges because partnerships marked by trust are so highly valued that parties will want to commit to such relationships. Trust is an important component in the establishment, stability, and maintenance of long-term quality relationships, and it is linked to faith in the partner's integrity and dependability [44, 57]. A relationship that lacks trust, according to Muafi [45], is unlikely to be recognized as high quality. As a result, trust is regarded as an important characteristic of the RQ construct in all sectors and a necessary component of a long-term connection. In trade partnerships, trust is a critical characteristic that improves cooperation while decreasing opportunistic behavior and uncertainty [58].

In the context of group lending, trust can be considered as the ability and willingness of individual group members to rely on one another's integrity and behavior in order for all group members' long-term expectations to be satisfied. In other words, trust is the readiness of individual group members to be susceptible to one another's activities based on the expectation that each member of the group can be depended on to fulfill his

or her commitments, regardless of the ability to monitor or control one another. A trustworthy group member is regarded to be credible, benevolent, and honest, and hence unlikely to do anything damaging to the other members of the group, resulting in a high level of RQ inside the group. Interpersonal trust between individual group members was found to have a good effect on borrowing as a group [32, 49, 51]. Given the preceding research and arguments, the current study considers trust to be vital in the relationships of group members and puts trust as an important concept in measuring RQ. As a result, the following hypothesis is proposed:

H2 Trust between individual group borrowers is positively related to RQ.

Satisfaction and RQ

Satisfaction is a concept that refers to the perceived gap between prior expectations and actual profits (from an economic standpoint) or an emotional reaction to the overall working relationship with the channel partner (from a non-economic standpoint) [17, 56]. It is positively related to the continuity of long-term partnerships and adversely related to relationship disputes [43]. As a result, relationship satisfaction can be considered as a measure of a partnership's success. In the context of joint liability group lending, satisfaction can be defined as a group member's overall assessment of all outcomes of his or her working relationships with other group members, including social and economic outcomes. Individual group members' history of positive interaction is a primary source of relationship pleasure [46, 49], and group members' best assurance of future performance is a continuous history of individualized, error-free engagement [17]. The construct of satisfaction is regarded as an important dimension of RQ in exchange relationships [7, 53, 62, 64], and it is also one of the most widely studied key determinants in RQ studies [64]. As a result, the following hypothesis is proposed:

H3 Relationship satisfaction between individual group members is positively related to RQ.

RQ and group loan repayment

Past investigations have discovered a strong positive relationship between RQ and customer loyalty [5, 6, 42], and financial performance [17, 52]. RQ has also been found to reduce opportunism and conflict inherent in relationships [27, 52]. In other words, opportunism is negatively associated with trust, satisfaction, and commitment [64]. In the context of group lending, opportunistic behavior may include a group member's failure to perform as per group loan contract specifications by depending on fellow group members to repay the group loan on their behalf, investing in risky projects, or withholding strategic information. These opportunistic behaviors induce moral hazard, which in turn affects negatively group loan repayment [30]. Further, interpersonal trust, one of the building blocks of RQ, has been found to influence positively group loan repayment [32]. Similarly, Cassar et al. [16], Pellegrina et al. [49], and Postelnicu et al. [51] indicate that relational social capital in terms of interpersonal trust between individual group members is more essential for group loan repayment than other elements of social capital. Hence, building and maintaining positive relationships between individual group members may be vital to the success of group lending. Therefore, RQ between individual group members is expected to improve group loan repayment. Accordingly, this study hypothesizes that:

H4 RQ between individual group members is positively related to group loan repayment.

Accordingly, at the dimensional level, it can be hypothesized that:

H4a Relationship commitment between individual group members is positively related to group loan repayment.

H4b Trust between individual group members is positively related to group loan repayment.

H4c Relationship satisfaction between individual group members is positively related to group loan repayment.

Research methodology

A survey research methodology was employed to assess the proposed study model (Fig. 1). According to Groves et al. [25], survey research is used to quantitatively describe specific aspects of a given population, often involving examination of the relationships among variables. Since the aim of this study is to gain a greater understanding of relationship quality among members of a borrowing group and how it relates to group loan repayment, the survey methodology is appropriate. Surveys can obtain information from large samples of the population, are relatively easy to generalize from, and can elicit information about attitudes that would otherwise be difficult to measure using other techniques [12]. More specifically, the survey was cross-sectional. According to Dillman et al. [18], a cross-sectional survey has the

advantage of measuring current attitudes or practices and providing information in a short period of time.

Measurement development

The study variables were measured using validated items from past research. Table 2 lists the measurement items utilized in this investigation. Morgan and Hunt's [44] items were adapted to measure commitment and trust. Items based on Crosby et al. [17] were used to assess satisfaction. Group loan repayment was assessed using loan repayment intention items generated by the researchers based on the Bian and Forsythe [15] and Dodds et al. [19] intention to purchase scales. The use of repayment intention as a substitute for repayment is predicated on the idea that intention drives behavior [40, 41]. All items were built on a 5-point Likert scale ranging from (1) strongly disagrees to (5) strongly agrees. In this study, the questionnaire items were customized for the context of group lending and validated in a pretest with 10 microfinance specialists. Some further suggestions were made, as well as minor adjustments. The revised questionnaire was then piloted among 20 individual group borrowers in Dodoma city before being accepted as the final version. In the suggested research model, RQ, as a multidimensional construct, takes the form of a composite score derived from its dimensions [36]. The questionnaire was anonymous. According to Groves et al. [25], surveys conducted anonymously provide an avenue for more honest and unambiguous responses.

Sampling and data collection

The population of the study was made up of group borrowers from all MFIs in Tanzania's three major commercial cities: Dar es Salaam, Mwanza, and Arusha. Many MFIs borrowers are found in Tanzania's major commercial cities [31]. Questionnaires were provided to a systematic sample of 600 joint liability borrowers as they exited various MFIs in a step of three (200 borrowers from each of Tanzania's three largest commercial cities). Systematic sampling is a good representative of the population like the simple random sample [26]. Respondents were asked to answer questions on their current borrowing group on a voluntary basis. A total of 450 usable responses were gathered, with a response rate of 75% across all exits. The majority of those who responded were female (89.6%). This finding implies that most of the micro-borrowers in Tanzania are women. According to USAID [60], 60% of women in Tanzania live in extreme poverty. That is why many MFIs offer group-based lending to female borrowers to raise their income and reduce poverty (Akhter and Chang [3, 35]. This finding is consistent with Kasoga and Tegambwage [30] and Kasoga [31], who found out that most of the micro-borrowers in Tanzania, are women. The respondents' ages ranged from 18 to 49 years, with the majority being between the ages of 26 and 35. (44%). According to Table 1, the majority of respondents (69.3%) had a primary education and were married (69.3%).

Data analysis and results

AMOS version 20 was used to analyze data in two stages [8]. The construct validity of the measurement model was verified using confirmatory factor analysis (CFA) in the first stage, and the proposed theoretical model (Fig. 1) and research hypotheses were tested using structural equation modeling in the second stage (SEM). The application of SEM allows for the simultaneous testing of construct interactions with many variables, as well as the overall robustness of the model [26].

Measurement model

The sample size was checked before doing a confirmatory factor analysis (CFA) to validate the measurement model. The results in Table 2 show that the Kaiser–Meyer–Olkin (KMO) value was 0.782, which is greater than the suggested value of 0.5, indicating that the sample size was enough for factor analysis [54]. A significant ($p < 0.001$) Bartlett's test of sphericity verified this [26]. The CFA yielded reliable and acceptable results. As indicated in Table 2, the measures' reliability was confirmed by Cronbach's alpha coefficients (α) greater than the suggested standard of 0.6 and factor loadings with weights greater than 0.707. [26]. Factor loadings indicated convergent validity. All factor loadings for indicators measuring the same construct (Table 2) were statistically significant ($p < 0.001$), indicating convergent validity [22].

Correlations between the constructs and the square root of their average variance were used to demonstrate discriminant validity (AVE). According to Table 3, the

Table 1 Demographic information of respondents (n = 450)

Measure	Items	Frequency	Percent
Gender	Male	47	10.4
	Female	403	89.6
Age	18–25	83	18.4
	26–35	198	44.0
	36–49	169	37.6
Education	Primary	323	71.8
	Secondary	89	19.8
	Diploma	38	8.4
Marital status	Single	61	13.6
	Married	312	69.3
	Divorced	23	5.1
	Widowed	18	4.0
	Cohabiting	36	8.0

Table 2 CFA results

Construct	Item label	Item description	Factor loading	t-value
Commitment (COMT)	α = 0.910; AVE = 0.938			
	COMT1	Our relationship in our group is something we are committed to	0.874	77.789***
	COMT2	Our relationship in our group is something we intend to maintain indefinitely	0.921	78.005***
	COMT3	Our relationship in our group deserves our maximum effort to maintain	0.760	75.704***
Trust (TRUS)	α = 0.966; AVE = 0.833			
	TRUS1	Each member of our group can be trusted at all time	0.955	61.726***
	TRUS2	Each member of our group can be counted on to do what is right	0.969	61.383***
	TRUS3	Each member of our group has high integrity	0.887	57.718***
Satisfaction (SATS)	α = 0.946; AVE = 0.816			
	SATS1	I am satisfied with my fellow group members	0.875	57.515***
	SATS2	I am satisfied with the relationship with my fellow group members	0.941	61.525***
	SATS3	Overall, I am satisfied with the relationship in our group	0.897	58.516***
Group loan repayment (GLR)	α = 0.879; AVE = 0.100			
	GLR1	The likelihood I would repay my loan is high	0.843	225.412***
	GLR2	My willingness to repay my loan is high	0.804	257.909***
	GLR3	The probability I would repay my loan is high	0.890	230.489***

KMO and Bartlett's test of sphericity = 0.782; $\chi^2_{(66)} = 5805.026$***

***$p < 0.001$ (2-tailed)

Table 3 Descriptive statistics and correlation between constructs

	COMT	TRUS	SATS	RQ	GLR
COMT	**0.969**				
TRUS	−0.251***	**0.913**			
SATS	−0.356***	0.616***	**0.903**		
RQ	0.161***	0.815***	0.756***	**0.984**	
GLR	−0.033	−0.062	−0.010	−0.058	**0.316**
Mean	1.769	1.451	1.448	1.554	4.755
Standard deviation (SD)	0.448	0.494	0.493	0.284	0.404
Skewness	−0.754	0.261	0.304	0.512	0.033
Kurtosis	−0.596	−1.792	−1.700	−0.534	−1.687
Tolerance	0.865	0.602	0.560	1.000	
VIF	1.156	1.660	1.785	1.000	

Diagonal elements (in bold) are the square root of AVE between the constructs and their measures. The off-diagonalelements are correlations between the constructs

***$p < 0.001$

calculated pair-wise correlations between components did not surpass 0.85 and were substantially less than one [13], and the square root of AVE for each construct was greater than the correlations between them, indicating discriminant validity [8, 20]. By using existing scales and assuring respondents' anonymity, potential common method variance was reduced [50]. Furthermore, exceptionally strong correlations ($r > 0.80$) between constructs were not identified (Table 3), indicating that common method bias did not pose a significant danger to the findings [48]. The variance inflation factor (VIF) for each construct was examined to identify the degree of multicollinearity among the explanatory measurement constructs. VIF values range from 1.000 to 1.785 (Table 3), which is less than the standard cut-off criterion of 5 [26], indicating that the components are not substantially associated. The correlations between each dimension and the RQ construct were positive and significant, indicating that the three dimensions are relevant for the construction of the higher-order RQ construct in the group lending context. As shown in Table 3, trust emerged as the most important dimension of RQ ($r = 0.815$, $p = < 0.001$), followed by satisfaction ($r = 0.756$, $p = < 0.001$). Commitment indicated the weakest correlation but significant ($r = 0.161$, $p = < 0.001$). Based on these findings, RQ in the context of group lending is verified to be a multidimensional, higher-order construct with three dimensions: commitment, trust, and satisfaction (Fig. 1).

Descriptive statistics

Descriptive statistics (Table 3) indicate that group members had very low levels of relationship commitment (Mean = 1.769, SD = 0.448), trust (Mean = 1.451,

SD = 0.494) and satisfaction (Mean = 1.448, SD = 0.493). Consequently, RQ between individual group members was low (M = 1.554, SD = 0.284). These results are similar to the results of Kasoga [32] who found lower levels of trust among joint liability borrowers in Tanzania. However, group loan repayment was high (Mean = 4.755, SD = 0.404), suggesting insignificant and negative correlations between group loan repayment and RQ (−0.058), commitment (−0.033), trust (r = −0.062) and satisfaction (−0.010), as shown in Table 3. Skewness and kurtosis values are within acceptable limits [26]. Specifically, skewness values are neither less than −1 nor greater than + 1, and kurtosis values are neither less than −2 nor greater than + 2, showing that there is no risk of non-normal distribution within the sample (Table 3).

Structural model and hypothesis testing

After confirming the validity of the measures, they were used to evaluate the proposed relationships using a structural model. The goodness-of-fit indices were assessed to evaluate the structural model and found to be well within the recommended guidelines [61] (Table 4), demonstrating the structural model's satisfactory fit to the data. The model explains 99.8% of RQ ($p = 0.000$) but has insignificant explanatory power for group loan repayment ($p = 0.220$) (Table 5).

The results of hypothesis testing are presented in Table 5. We find support for H1, H2 and H3, with a significant and positive effect between RQ and commitment ($\beta = 0.161$, $p = 0.000$), trust ($\beta = 0.815$, $p = 0.000$), and satisfaction ($\beta = 0.756$, $p = 0.000$). These results show that "trust" is the dimension with the highest positive impact on RQ ($\beta = 0.815$), followed by "satisfaction" and "commitment" ($\beta = 0.756$ and $\beta = 0.161$, respectively).

Regarding the effect of RQ on group loan repayment (H4, H4a, H4b and H4c), we find an insignificant and positive effect between RQ and group loan repayment ($\beta = 0.706$, $p = 0.496$), thus rejecting H4. We also reject H4a, H4b and H4c, with an insignificant, negative effect between group loan repayment and commitment ($\beta = -0.408$, $p = 0.446$), trust ($\beta = -0.508$, $p = 0.408$) and satisfaction ($\beta = -0.377$, $p = 0.531$).

Discussion of findings

The purpose of this study was to examine the impact of RQ and its components on group loan repayment. Findings indicate that RQ, in the context of group lending, is significantly explained by commitment, trust, and satisfaction, supporting H1, H2, and H3. These findings provide empirical support in the group lending context when it comes to the effect of the individual aspects of RQ (commitment, trust, and satisfaction) on the RQ concept, which is consistent with earlier findings in other contexts (e.g., [5, 7, 62]. Thus, RQ in group financing in the microfinance industry has three dimensions: relationship commitment, trust, and satisfaction. This means that increased relationship commitment, trust, and satisfaction among individual group members lead to higher RQ within the borrowing group.

Table 4 Model fit indices (n = 450)

CMIN	RMR	GFI	AGFI	NFI	RFI	IFI	TLI	CFI	RMSEA	PCLOSE
0.605, df 1, p = 0.437, χ^2/df = 0.605	0.002	0.999	0.992	1.000	0.998	1.000	1.001	1.000	0.000	0.644

χ^2, chi-square; *df* degrees of freedom; *RMR* root mean square residual; *GFI* the goodness-of-fit index; *AGFI* adjusted goodness-of-fit index; *NFI* normed fit index; *RFI* relative fit index; *IFI* incremental fit index; *TLI* Tucker–Lewis index; *CFI* comparative fit index; *RMSEA* root mean square error of approximation; *PCLOSE* parsimony close

Table 5 Hypotheses testing results

Hypothesis	Regression path	Standardized regression weight	Standard Error (S.E.)	Critical ratio (C.R.)	Prob	Result
1	COMT < – RQ	0.161	0.072	3.460	***	Supported
2	TRUS < – RQ	0.815	0.048	29.764	***	Supported
3	SATS < – RQ	0.756	0.054	24.465	***	Supported
4	GLR < – RQ	0.706	1.476	0.681	0.496	Rejected
4a	GLR < – COMT	−0.408	0.491	−0.762	0.446	Rejected
4b	GLR < – TRUS	−0.508	0.501	−0.827	0.408	Rejected
4c	GLR < – SATS	−0.377	0.492	−0.627	0.531	Rejected

RQ: $R^2 = 0.998$, Adj. $R^2 = 0.998$, Durbin–Watson = 1.980, *F*-statistic = 72, 208.008***

GLR: $R^2 = 0.031$, Adj. $R^2 = 0.001$, Durbin–Watson = 1.213, *F*-statistic = 1.509, p = 0.220

***$p < 0.001$

Furthermore, in the context of group financing, trust appears as the most important determinant of RQ. This is consistent with Muafi's [45] findings. This means that, in order to improve RQ between them, potential group members must consider trust in their self-selection and screening process. According to Fernandes and Pinto [21], partners should pay special attention to relationship characteristics that have a greater impact on RQ. Higher levels of trust, and hence RQ, will boost cooperation while lowering opportunism, uncertainty, and conflict among group members [44, 64]. The appropriateness of the joint liability lending model depends on trust between individual borrowers [32].

With regard to the impact of RQ and its components on group loan repayment, the findings show that RQ and its components: commitment, trust, and satisfaction have no effect on group loan repayment. The lack of support for H4, H4a, H4b, and H4c may be explained by the lack of RQ orientation within borrowing groups, as evidenced by lower levels of RQ between individual group members. Kasoga [32] also recorded lower levels of trust among group borrowers in Tanzania. The finding that RQ and its dimensions have no statistically significant relationship with group loan repayment suggests that group loan repayment is influenced by other factors that were not considered in this study, such as peer pressure and loan repayment on behalf of defaulting members in order for them to continue receiving subsequent loans in future, as per the joint liability loan contract. In this regard, our findings confirm the notion that group lending performance is exclusively determined by its inherent qualities as a shared liability loan contract, with little or no significance for social capital [11].

In other words, because group borrowers are poor, have no alternative credit, and are jointly liable for repayment of each group member's loan, they have an incentive to guarantee the group loan is repaid in order to continue receiving future group loans [1]. This forces group members to put pressure on a defaulting member to repay his or her portion of the group debt, or to repay the loan on the defaulting member's behalf and replace him or her with a new member [16]. These activities could also account for the observed lower levels of RQ among individual group members. Similarly, Kasoga [32] observes that a lack of alternative credit forces poor individuals to borrow in groups, regardless of trust, meaning lower levels of RQ between them. As a result, the advantage of group lending stems solely from the provisions of a joint liability loan contract, which requires the group as a whole to repay its loan in order to continue receiving future loans [16].This implies that group loan repayment may be successful whether or not it is implemented among borrowers with higher levels of RQ.

On the other hand, Lumineau and Quelin [39] argue that formal contractual mechanisms (such as a shared responsibility loan contract) are required to protect the interests of the parties to the exchange, but their ability to counteract all forms of opportunism is limited. For example, when a borrower fails to meet the terms of a collective loan arrangement or withholds strategic information. As a result, parties incorporate relationship strategies to limit opportunistic behavior [27]. Although the findings of this study reveal that RQ and its dimensions are unrelated to group loan repayment, Yeo and Lai [64] argue that they should be improved in order to lessen the danger of opportunism. According to these authors, opportunism is negatively associated with trust, satisfaction, and commitment.

Conclusion

The impact of RQ and its dimensions on group loan repayment was investigated in this paper. RQ and its characteristics (relational commitment, trust, and satisfaction) do not influence group loan repayment, according to the findings of the study. This means that greater rates of group loan repayment are not associated with the presence of quality relationship among group members. Because they have no other options for credit, group borrowers are required by the shared responsibility loan contract to repay their entire group loan in order to continue receiving future loans, regardless of the quality of the relationship between them. Commitment, trust, and satisfaction are all validated as characteristics of RQ between individual group members in the context of group lending. This means that better RQ results from increased relationship commitment, trust, and satisfaction among individual group members. Furthermore, our findings reveal that trust has the greatest impact on RQ among individual group members, followed by satisfaction and commitment.

Theoretical implications

This study's findings have significant theoretical implications for RQ and microfinance literature. First, our findings add to our present knowledge of group loan repayment by demonstrating the insignificant relationship between RQ and its dimensions and group loan repayment. This means that RQ has no effect on group loan repayment at the second-order and dimensional levels. This study has observed low levels of RQ between individual group members, but with high group loan repayment. This startling outcome can be explained by the belief that group lending performance is exclusively determined by its inherent qualities as a joint liability loan contract, with little or no influence from social capital [11]. This is the first study to attempt to provide

meaningful insights into how RQ and its characteristics affect group loan repayment.

Second, findings from prior studies such as Almomani [5], Alves et al. [7], Levin et al. [37], and Wisker [62] indicating RQ is a second-order multidimensional construct with three major dimensions: commitment, trust, and satisfaction have been experimentally verified. This conclusion implies that in the microfinance business, commitment, trust, and satisfaction are important determinants of RQ, particularly in the setting of group lending, which has been overlooked in earlier studies. As a result, understanding these three essential elements of the RQ construct is necessary for developing a successful long-term relationship among group borrowers. Finally, the findings of Alves et al. [7], Argan [10], Lian [38] and Salah and Abou-Shouk [53] that trust is the most essential dimension of RQ have been empirically validated. In the under-researched setting of group financing, this study discovered that trust has a larger impact on RQ, followed by satisfaction and commitment.

Managerial implications

By identifying the aspects that require managerial attention as significant drivers of RQ in the group lending setting, this study contributes to both RQ and microfinance literature. This study reveals that RQ in group lending is highly dependent on individual group members' commitment, trust, and satisfaction. Commitment, trust, and satisfaction are among the broadly used dimensions that are conceptualized to form a higher-order construct, RQ [64]. As a result, understanding these three important elements is necessary for establishing a successful long-term relationship between individual group borrowers.

This study has discovered lower levels of RQ between individual group borrowers, implying that Tanzanian group borrowers have not paid adequate attention to the RQ orientation. Thus, although RQ and its dimensions did not influence group loan repayment, potential group borrowers still need to improve their orientation toward RQ to reduce opportunistic behavior [63]. Formal contractual mechanisms, such as joint liability loan contracts, are inadequate to account for all cases of opportunism [64]. Because trust among individual group borrowers has a significant impact on RQ, potential group members should self-select and screen one another based on positive experience. This means that potential group members should screen each other to guarantee that only trustworthy people are admitted to the borrowing group, reducing adverse selection and improving RQ. According to Fernandes and Pinto [21], partners should pay special attention to relationship characteristics that have a greater impact on RQ. Higher RQ and trust, in particular, will increase cooperation and reduce opportunism, uncertainty, and conflict between individual group members [44, 64]. Kasoga [32] maintains that the appropriateness of the joint liability lending model depends on trust between individual group borrowers. Similarly, Morgan and Hunt [44] argue that the presence of trust is necessary for any social group's efficiency and even survival.

Limitations and future research directions

There are a few limitations in this study that could lead to more research in future. First, the construct of RQ in group lending is limited to three dimensions in this study. Future research could look into additional aspects of RQ in the context of group lending. Second, RQ has been argued to demonstrate context-specific peculiarities [28]. When evaluating the current findings, keep in mind that the results are constrained by the Tanzanian context of group lending and thus may not be generalizable to other situations and cultures. As a result, comparable studies might be carried out in other locations and cultures. Third, because our model was validated using a cross-sectional data set, future research should use a longitudinal approach to validate the suggested model. Morgan and Hunt [44] argue that longitudinal design offers stronger inferences in any model where causation is suggested. Finally, this study measured group loan repayment based on loan repayment intention. Further research could thus be conducted using actual loan repayment data.

Abbreviations

AGFI: Adjusted goodness-of-fit index; AVE: Average variance extracted; CFA: Confirmatory factor analysis; CFI: Comparative fit index; GFI: Goodness of fit index; GLR: Group loan repayment; IFI: Incremental fit index; KMO: Kaiser–Meyer–Olkin's; MFI: Microfinance institution; PCLOSE: Parsimony close; RFI: Relative fit index; RMR: Root mean square residual; RMSEA: Root mean square error of approximation; RQ: Relationship quality; SEM: Structural equation modeling; TLI: Tucker–Lewis index; MFIs: Microfinance institutions; NFI: Normed fit index; VIF: Variance inflation factor.

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Author contributions

AGT conceptualized the introduction, reviewed the literature, discussed the findings, wrote the conclusion, and was a major contributor in writing the manuscript. PSK contributed in the writing of the introduction and literature review. PSK also collected the data, analyzed and interpreted the data regarding the role of relationship quality on loan repayment among group borrowers. All authors read and approved the final manuscript.

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