The Effect of Loan Restructuring on Profitability of Clients' Projects: The Case of Selected Projects

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Abstract

Banks restructure client loans as a risk management strategy to ensure recovery and protect profits. While many studies examine loan restructuring, its impact on clients' project profitability remains underexplored. This study analyses 109 projects financed by a major Tanzanian investment bank to assess this relationship. Using hierarchical linear regression, findings show that restructuring enhances the positive effect of the repayment period on project profitability while reducing the impact of repayment amount. Interestingly, interest rates appear to play no role in restructuring decisions. These results highlight the importance of risk management in banking and suggest that loan restructuring should prioritize recovery and clients' profitability.

Keywords*: loan restructuring, profitability, repayment amount, interest rates, hierarchical regression*
JEL Classification*: G21, G32, G33, E43, C30*

1. Introduction

This paper is interested in examining the influence of loan restructuring (modification) on the profitability of bank clients' projects. It addresses the question of whether loan restructuring is beneficial to the clients as far as the profitability of their projects is concerned or not. The question is of significance based on the importance of the profitability of the client's projects to the banks. It is well known that the banks' major assets are loans. Furthermore, the main objective of the bank's work is to achieve profit by balancing the liabilities and assets of the bank (Al-Sadi and Al-Mamouri, 2022). The performance of the banks' assets is thus crucial in achieving banks' best returns. This is because profitability also provides assurance for the repayment to the bank. Grahn (2020) explains that the business competition that banks face necessitates them to strategise on how to retain their customers. They thus put much effort into creating customer loyalty by consistently giving them good deals. The existence of the relationship between client profitability and banks in terms of loyalty may suggest that banks may always support the clients to get a profit. BIS (2020) explains that

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the loan management done by banks aims at enabling clients to utilize properly the loan given and repay the whole amount on time.

However, it has been observed that a good number of previous studies focus mostly on banks' profitability and not on clients' profitability (Aketch and Musoke, 2021; Damayanthi, *et al*., 2022; Rosalina and Nugraha, 2019; Rybak and Puskov, 2020). This emphasizes the notion that loan management is for the bank's profitability and not for the clients' profitability. As such, in this paper, the researcher is aimed at establishing the extent to which the loan management process employed by banks during the life cycle of the loan can impact the profitability of the projects undertaken by the clients. One aspect of loan management, which is loan restructuring, is used in this study.

Loan restructuring involves modifying a loan with different terms from its original terms to enable distressed borrowers a more affordable loan repayment (Dodson and Ahrendsen, 2018; Nugroho and Trinugroho, 2023). It has been argued also that if loan restructuring is done correctly by considering the borrower's ability to repay the loan, then the credit risk can be reduced (Nugroho and Trinugroho, 2023). This is because loan restructuring can help borrowers to maintain their credit and avoid late payments or defaults. Loan restructuring is therefore expected to, among others, lower monthly payments. Available literature further suggests that loan restructuring can provide a win-win situation where lenders avoid costs associated with bankruptcy or writing off the loans while borrowers avoid insolvency risks. In their study, Aketch and Musoke (2021), on the one hand, found that restructuring of the loan recovery culminates in significant improvements in the bank's profitability. Soedarmono at el., (2021), on the other hand, observed that higher restructured loans increase non-performing loans. Nuwagira *et al.,* (2023) suggest that banks should also assess the creditworthiness and ability of the borrowers to meet the restructured terms before approving the same. These findings suggest that despite the positive motive of restructuring to both parties, its benefits are not certain.

As mentioned earlier, most studies in loan management tend to focus on the profitability of the banks or reducing default rate hence ignoring the effect on the borrower's side (Aketch and Musoke, 2021; Damayanthi, *et al*., 2022; Rosalina and Nugraha, 2019; Rybak and Puskov, 2020). These studies centered their focus on profitability, increase on the quality of loan portfolios, reducing the possibility of bankruptcy of banking institutions, reducing the risk of non-performing loans as well as determining the optional restructuring loans. In this paper, we argue that there might be a fundamental problem if banks ignore the borrower's side. This is because, for the loan restructuring to work and produce the expected results; banks need to support borrowers who are their clients hence enabling clients to react positively and be in a position to repay promptly. The clients may, however, react negatively even after restructuring and continue to default.

There is a limited number of studies that center the discussion on the borrowers' perspective. Dodson and Ahrendsen (2018) analyzed the characteristics of the borrowers who are likely to benefit from loan restructurings and their probability of default. The study extended further the discussion on the default aspect of the loan restructuring focusing more on homeowners which cannot represent similar characteristics with big companies or governments' projects. One of the main differences is the focus on profitability, which tends to be the main focus of investment banks when providing loans. To make bank investments, the profitability of projects funded is a crucial matter for the bank to survive. This is because the profitability of the projects affects the structure of bank assets and liabilities. According to Fohlin (2014), investment banks are concerned with financing the long-term capital needs of businesses and governments.

The importance of investment banks to foster economic growth through financing various projects for government and business is not only prevalent in developed countries but also in developing countries like Tanzania (Mwakabhejela, 2019). Tanzania made a number of efforts since independence to help investment climate including establishment of an investment bank to provide loans for various projects. The investment bank in our case was established in 1970 with the aim of providing medium and long-term loans to investors. The bank aimed at providing loans to commercial agriculture, manufacturing, processing, construction, transport and mining sectors. After financial sector reforms which were done by the government in the late 1980s to 1990s, the investment bank was registered as a limited company under Companies Act of 2002. This also was consistent with Banking and Financial Institutions Act of 2006. However, the bank did not register good improvement as a result the government converted it to a group and recapitalized it (Tanzania Five Year Development Plan 2011/2012 – 2015/2016).

BoT (2019) reported further that, despite the increase in loan disbursement to the government and private sector, the repayment of some clients are low due to the failure of clients' projects. The BoT revoked licenses of some banks due to under capitalization which has been caused partly by loan provisions caused by the poor performance of clients' projects. Tanzanian banks have been using loan restructuring techniques as a mechanism to improve loan recovery (Abuogo, 2020; Thobias, 2019). According to the Banking and Financial Institutions Management of Risk Assets (2010), the techniques that can be used for loan restructuring include restructuring of any or combination of the repayment period, repayable amount, installment, or rate of interest. These can be selected by the bank given the economic or other reasons relating to the borrower's financial difficulty.

Other restructuring techniques include the replacement of old debts with new debt called refinancing, out-of-court restructuring, asking the guarantor to

pay, using shares of the borrowers to offset the loan, or declaring the loan as bad debt (Gatimu *et al*., 2018). Empirical studies such as Thobias (2019) found that loan restructuring has a positive relationship with bank performance. Abuogo (2020) also found that loan restructuring is one of the methods applied by banks in Tanzania for stressed loans. It helps the banks to increase repayment and reduce the amount of non-performing loans (NPL). These studies have similar objectives to global studies which aimed at assessing the relationship between loan restructuring and bank performance.

While it is important to consider the role of banks in any economy as well as their crucial role of lending as the mainstay of the banking business, ignoring the motivation of borrowers is unhealthy. This is because, on one hand, borrowers do not borrow for the sake of borrowing rather; they want to succeed in their businesses. The loans need to be profitable to the borrowers. If the bank charges a rate that is above the competitive market rate, then the likelihood of losing business is expected to be high. On the other hand, it is argued that the competition in the banking industry makes the customers' retention matter be one among the crucial factors for success. As such, the relationship needs to go beyond just providing quality products and services. It should involve actively connecting and nurturing relationships with customers to help building customer loyalty hence leading to increased customer retention. In this perspective, it is considered that loan restructuring, apart from ensuring the recovery without going to the collateral by the banks, is one of the mechanisms to strengthen the relationship with customers, helps them to have profitable outcome in their projects, and be able to repay the loans. Unfortunately, there is a very limited existing literature that addresses this relationship.

The main question that this study aims to respond to is 'to what extent does loan restructuring influence the profitability of investment projects implemented by borrowers?' Using data from a large single investment bank, this study examines the effect of restructured amount, restructured repayment amount, restructured payment period as well as restructured interest rates on projects' profitability. The rest of the paper is divided into four sections. The second section which follows this introduction covers the literature review. The third section covers the study methodology while the fourth section presents empirical results and a discussion of the same. The last section provides a summary and conclusion of the study.

2. Literature Review

2.1 Theoretical Review

This study has been informed by two theories, the theory of asymmetric information and the risk management theory. The theory of asymmetry information was advocated by Akerlof (1970) in his research on the market for lemons, quality uncertainty, and the market mechanism. The theory elaborates that information asymmetry occurs when one party of the

transaction is more informed about the transaction than another party (Auronen, 2003). The fact that people possess different information, affects their behavior in different situations. The theory thus assumes that it is very challenging to establish and separate good from bad customers during the lending process (Auronen, 2003). This normally causes adverse selection and moral hazard problems.

The adverse selection, on one hand, occurs when lenders select the wrong customers as a result of insufficient information and give them loans (Ruseski and Wadsworth, 2021). Moral hazard, on the other hand, was originally defined as 'a hidden agenda or action' by a borrower (Rowell and Connelly, 2012) implying that the borrowers may have hidden agenda while taking the loans thus necessitating the need for lenders to appropriately monitor and follow up their customers, and collect enough information to understand their doings as far as the given loans are concerned.

Therefore, the theory suggests that getting all the necessary information of borrowers during the application, and continuing monitoring their performances after loan disbursement is vital for both the banks and borrowers. Different indicators are normally considered by banks; loan screening, nature of projects, interest rates, loan amount, and repayment period. The theory argues that the collection of reliable information regarding the borrowers will lead to effective and sound screening which ultimately will have a positive impact on borrowers' projects. The theory, however, does not explain further how banks should do in circumstances where the borrowers have completely failed to honour their obligations. The study was thus complemented by the risk management theory which provides a framework that aims at reducing the potential for risks as well as mitigating the impact of possible credit losses.

Risk management has been defined differently; as the likelihood for an undesirable event to occur, the magnitude of loss from an unexpected event, the probability that "things won't go well", and the effects of an adverse outcome (Apostolik and Donohue, 2015); as the process of adaptation and implementation of administrative decisions aimed at reducing the possibility of adverse effects (Ajupov et. al., 2019); and as a systematic process of identifying loss exposures faced by an organization or individual and selecting the most appropriate techniques for treating such exposures (Rejda and McNamara, 2021) describe risk management. Risk management is a cornerstone of prudent banking practices. Loan restructuring is one of the risk management strategies undertaken by banks in the efforts to reduce if not eliminate the adverse effect of bad loans. Banks normally consider restructuring the loans when borrowers fail to repay due to financial difficulties. Banks collect all the necessary information to enable effective loan restructuring which involves the agreement between lenders and borrowers to reschedule either all or any of the following: repayment period,

repayable amount, installments or rate of interest (Banking and Financial Institutions Management of Risk Assets, 2010). The aim of restructuring is to help borrowers to improve or restore their operations while the lender is assured of recovering their amount in arrears (Segura and Suarez, 2023).

2.2 Empirical Review

Various empirical studies have been undertaken with the main focus mostly on the banks' profitability and not on clients' projects' profitability. This paper's focus is on the extent to which loan restructuring affects the performance of borrowers' projects thus being able to repay the loans. We thus discuss the on-going debate regarding the loan restructuring efforts dwelling on respective attributes which are loan amount, repayment amount, repayment period, and interest rates. The restructuring, however, can never take place if there are no loans disbursed in the first place. The discussion, therefore, starts with the status before restructuring.

The loan amount is what the borrowers apply when in need and the lender provides after the respective assessment. It is possible for clients to apply for a certain amount and get less than what they applied for (Wilson, 2016). The amount of loan given is a function of risk that banks identify with a particular client. The loan amount may be crucial for business profit since the borrowers are more likely to ask for the amounts that are needed for the business. Salia and Mbwambo (2014) observed that enterprises whose owners borrow from financial institutions perform better than those whose owners do not have access to credit. Furthermore, the loan amount increases the investment in the business which increases the performance and raise profitability (Al Abass, 2021).

A positive influence is also expected when the amount is restructured. Damayanthi *et al.*, (2022) argued that one of the approaches in loan restructuring is to change the installment amount, and that loan restructuring increases the loan amount. Similarly, Thobias (2019) considers the loan size as one of the critical components of restructuring that has a positive relationship with the performance of the bank. Matei (2018) observed that restructuring programmes by banks, in terms of changing the monthly repayment amount for entities that are unable to repay the credit, help their businesses not to suffer and be able to repay the loans hence reducing NPLs. Based on these arguments, the following hypotheses were postulated and tested.

H1a: Loan amount is positively related to the profitability of clients' projects.
H1b: Restructured loan amount is positively associated with the profitability of clients' projects.

The repayment amount is the amount that the borrower expects to pay to the bank at regular intervals. The repayment amount is based on the repayment

schedule which is provided when the loan is taken from the bank. Borrowers know this amount before taking the loan, as such, the decisions remain with the borrower to ensure that he/she borrows the amount whose repayment may not impair the functioning of the business in terms of liquidity and consequently eroding the profit level of the business. This may happen because failure to repay may attract more penalties hence increase expenses as well as increase the possibility of losing assets which have been used as collateral. According to Mokhtar *et al.* (2012), repayment amount was considered to be one of the factors that contribute to loan repayment problems in Malaysia. In their study, it was found that high repayment amounts burdened borrowers particularly those with lower cash flows. However, even though there are limited studies on the effect of repayment amount on profitability of clients, this study considers it to have a negative effect since it will erode cash flows hence creating liquidity problem as well as increasing expenses.

As far as the restructured repayment amount is concerned, it is expected to have the same effect as the restructured loan amount. However, the difference with restructured repayment is that it may imply spreading the installment hence reducing the financial burden to the borrower or providing a grace period for which the borrower may start to repay. This may provide flexibility and relief in repaying the loans (Damayanthi *et al*., 2022). Rybak and Puskov (2020) consider that loan restructuring involves deferral and distributions of loans for a certain period which include prolongations of the loan and credit vacations. These measures consequently reduce installment payments (i.e. repayment amount) as well as temporary debt reductions to the borrower. This is expected to give time to borrowers to ensure that investment projects are successful including becoming profitable. Hence, the repayment amount after the restructuring is expected to increase the profits of the borrower's investment project. This study, therefore, proposed and tested the following hypotheses:

H2a: Repayment amount is negatively related to the profitability of clients' projects.

H2b: Restructured repayment amount is positively related to the profitability of clients' projects.

The repayment period is the time frame which the borrower has to pay back the loan. In short, it is considered to be a period during which the debt obligations have to be repaid (Robb, 2017). This involves the period from the first to last repayment of the principal. From business perspective of the borrower, if the period is long, it means that the borrowers may get good time to utilize the loan hence provide the opportunity for more profit. This is consistent with the argument provided by Chapman and Higgins (2009) about the effect of shorter repayment periods, however, in their study, they did not consider the effect on profitability. Likewise, Barr and Crawford (1998)

considered that extending repayment periods make borrower more efficient. Furthermore, long repayment periods allow the borrower to pay small amount which can make the borrower borrow larger amounts. This is expected to help the borrower to adequately finance their businesses hence granting the possibility of more profit.

On the issue of repayment period, once the loan is restructured, this period is expected to be extended. As already argued above, the extension in terms of grace period or number of instalments will reduce the financial burden to the borrowers as well as making more money available for business. This can help the liquidity position of the borrowers and hence their business success. This may include having adequate funds for customer care and ensure long-term profitability to get rid of "good losses and bad profits" perspective. Reichheld and Markey (2011) argued that bad profits will undermine business growth hence affecting long profitability. Hence, the following hypotheses were tested:

H3a: Repayment period is positively related to the profitability of clients' projects.
H3b: Restructured repayment period is positively associated with profitability of clients' projects.

Interest is the cost of borrowing for borrowers but to the bank interest is the price of lending and so it constitutes part of income. As such, it produces conflicting perspectives for the two sides of the bargain. One, the borrowers will want the interest to be as low as possible to help them maximize not only profit but also the amount of loans (Edwards and Newell, 1991; Frankovic, 2001; Hicks, 1979; Pollard, 1963). A profit to the business is considered as surplus after interest has been paid. As such, when interest rates rise, the cost of businesses increases hence, reducing the profit level. To the bank, interest is a source of revenue. Keynes (2018[1936]) argued that the rate of interest is the price of investible resources. It is the price being paid for the use of capital. For the banks, interest is one of the major sources of revenue. For that matter, the increase in interest rate is expected to increase the profitability of the banks.

Once the interest rate is restructured, it is expected that banks will make the rate more favourable to clients. This will not only help banks to recover the loans but also to help the business to survive for continued relationships. Purnamawati and Yuanirta (2021) found that loan restructuring which include restructuring of interest rates significantly improve the performance of business. Likewise, Damayanthi *et al*. (2022) considered reduction of interest rates as one of mechanisms of loan restructuring which could help the borrower to survive during the pandemic. Following restructuring, it is

expected that interest will help the borrowers to improve their performance. As such, the following hypotheses were tested:

H4a: Interest rate is negatively related to the profitability of clients' projects.
H4b: The restructured interest rate is positively associated with the profitability of clients' projects.

3 Methodology

3.1 Theoretical Model

This study was guided by theories of asymmetric information and risk management. According to asymmetric information theory, loan is provided under the circumstances of uncertainty in the sense that there exists information asymmetry. This information asymmetry causes banks fail to observe some characteristics and actions of borrowers which may result into failure of repayment. The failure of repayment calls for strategic approaches by banks to ensure that loans are repaid or fully recovered. This strategic approach is the concern of the second theory which is risk management theory. However, these perspectives tend to focus on the side of the bank not in case of the borrowers. However, in case of borrowers, this paper considers that, in the first instance of information asymmetry, it is expected that the borrowers may take advantages of lack of information by the bank to profits in the projects they have borrowed money for. This is based on the perspective that for projects, the borrowers borrow to increase the return on their businesses. On the second instance, the restricting, apart from giving more time for the borrower to use the money, also the amount to be repaid is spread which makes the repayment amount smaller than the original one. Reducing the amount to repaid basically will reduce costs hence enabling the projects to make more profit, i.e., becoming more profitable.

As such, in this study, the profitability of projects is studied by considering two levels. The first level is at the initial loan provision before restructuring. Here the independent variables are original variables according to the original contract. The second level is when the loan is restructured hence the variables are those restructured according to new or restructuring terms. Because of these two levels, the profitability is studied under hierarchical linear regression models as advocated by Raudenbush and Bryk (2002); Snijders and Bosker (1999). According to Raudenbush and Bryk (2002), hierarchical models are used to formulate and test hypotheses about how variables measured at one level affect relations occurring at another level. This is called cross-level effects and our hypotheses (H1a through H4b) have been formulated to follow this perspective. Therefore, in this paper, we consider that original loans (not restructured) is the first level and restructured loans provide the second level hence requiring the understanding of the effects of loan restructuring on the profitability. The theoretical model followed a simple two-level model as follows:

Hierarchical form:		
	Level 1 (not restructured)	$Y_{ij} = \beta_{0j} + \beta_{1j} X_{ij} + r_{ij},$
	Level 2 (restructured)	$\beta_{0j} = \gamma_{00} + \gamma_{01} W_j + u_{0j},$ $\beta_{1j} = \gamma_{10} + \gamma_{11} W_j + u_{1j},$
Model in combined form:		
	$Y_{ij} = \gamma_{00} + \gamma_{10} X_{ij} + \gamma_{01} W_j + \gamma_{11} X_{ij} W_j + u_{0j} + u_{1j} X_{ij} + r_{ij},$	
	The term $\gamma_{11} X_{ij} W_j$ is called the *cross-level interaction effect.*	
Where we assume:		
	$E(r_{ij}) = 0,$	$var(r_{ij}) = \sigma^2,$
	$E \begin{matrix} u_{0j} \\ u_{1j} \end{matrix} = \begin{matrix} 0 \\ 0 \end{matrix},$	$Var \begin{matrix} u_{0j} \\ u_{1j} \end{matrix} = \begin{matrix} \tau 00 & \tau 01 \\ \tau 10 & \tau 11 \end{matrix} = T$
		$cov(u_{0j}, r_{ij}) = cov(u_{1j}, r_{ij}) = 0$

There are i = 1, …, n_j level-1 units nested with j = 1, …, J level- units. In this paper, we speak of before restructured loan i nested with restructured loan j.

β_{0j}, β_{1j} are level-1 coefficients. These can be of three forms:

- fixed level-1 coefficients (e.g, β_{1j} in the one-way random effects ANCOVA model, $\beta_{1j} = \gamma_{10}$)
- non randomly varying level-1 coefficients (e.g, β_{1j} in the non-randomly-varying slopes model, $\beta_{1j} = \gamma_{10} + \gamma_{11} W_j$)
- random level-1 coefficients (e.g, β_{0j} and β_{1j} in the random-coefficient regression model [$\beta_{0j} = \gamma_{00} + u_{0j}$ and $\beta_{1j} = \gamma_{10} + u_{1j}$] and in the intercept and slopes as outcomes models [$\beta_{0j} = \gamma_{00} + \gamma_{01} W_j + u_{0j}$ and $\beta_{1j} = \gamma_{10} + \gamma_{11} W_j + u_{1j}$])

γ_{00}, …, γ_{11} are level-2 coefficients and are also called fixed effects.

X_{ij} is a level-1 predictor (e.g. loan amount, repayment period and repayment amount)

W_j is a level-2 predictor (e.g. restructured loan amount, restructured repayment amount and restructured repayment period)

r_{ij} is a level-1 random effect

u_{0j}, r_{ij} are level-2 random effects

σ^2 is the level-1 variance

τ_{00}, τ_{01}, τ_{11} are level-2 variance-covariance components

3.2 Empirical Model

Following the theoretical framework (model), the study divided the independent variables into two categories. The first category of independent variables comprised with those which have not been restructured. The second category involved the restructured variables. Hence, variables not restructured are entered first in the sequence followed by restructured variables, i.e., from earlier to later in the sequence (Cohen, *et al*., 2003). This study, therefore, utilized three models. The first model (Mode 1) typically includes unrestructured loan variables namely LA, RpA, RpP and InR. In the second model (Model 2), restructured variables were added. The last model (Model 3) control variables namely LoC, InD and ImS were added. The empirical models used are as follow:

Model 1:

$$PfT = \beta_{10} + \beta_{11}LA + \beta_{12}RpA + \beta_{13}RpP + \beta_{14}InR + \varepsilon_{11}$$

Model 2:

$$PfT = \beta_{20} + \beta_{21}LA + \beta_{22}RpA + \beta_{23}RpP + \beta_{24}InR + \beta_{25}RsA + \beta_{26}RspA + \beta_{27}RspP + \beta_{28}RsInR + \varepsilon_{21}$$

Model 3:

$$PfT = \beta_{30} + \beta_{31}LA + \beta_{32}RpA + \beta_{33}RpP + \beta_{34}InR + \beta_{35}RsA + \beta_{36}RspA + \beta_{37}RspP + \beta_{38}RsInR + \beta_{39}LoC + \beta_{310}InD + \beta_{311}ImS + \varepsilon_{31}$$

Whereby:
PfT – project profitability
LA – Loan amount
RpA – Repayment amount
RpP – Repayment period
InR – Interest rate
RsA – Restructured loan amount
RspA – Restructured repayment amount
RspP – Restructured repayment period
RsInR – Restructured interest rate
LoC – Location
InD – Industry type
ImS – Implementation status

3.3 Data and Variable Description

This study used data from 109 projects for the bank's clients. These clients are those who obtained loans from the bank and submitted the audited financial statements for their projects. As such, this study used 109 loan observations which were treated as cross-sectional. Out of these, 71 loans provided to the projects which are about 65.1% were restructured while the remaining 38 (about 34.9%) were not restructured. Furthermore, in terms of location, 33 projects (about 30%) came from Dar es Salaam Region while 76 projects (about 70%) were financed outside Dar es Salaam. In terms of implementation status, only 6 projects (about 5%) were completed and 103

(95%) were on-going. The industry type was evenly spread with agriculture having 37 projects, manufacturing having 32 projects, and services having 40 projects. The number of observations was considered appropriate for regression analysis as per Field (2013).

3.3.1 Dependent Variable

The dependent variable was project profitability which was the amount obtained from the audited financial statements and was measured by the natural logarithm of the amount of profit for the period.

3.3.2 Independent Variables

In case of independent variables, this study used nine (9) variables namely Loan Amount (LA), Repayment Amount (RpA), Repayment Period (RpP), and Interest Rate (InR). These are variables before loan restructuring. After loan restructuring, the variables became Restructured Amount (RsA), Restructured Repayment Amount (RspA), Restructured Repayment Period (RspP) as well as Restructured Interest Rate (RInR). These formed independent variables. The study used only one dependent variable which is Project Profitability (PfT). In addition, control variables namely Location of the Project (LoC), Industry Type in which the project is based (InD), and implementation status of the project (ImS) were included (see Table 1 for variables' description and measurement). The variables dealing with amounts were transformed using natural logarithms to achieve normality and remove the effect of outliers. As indicated in Table 1, the source of these variables came from audited financial statements of clients and project documents.

Table 1: Definition of variables and sources

Variable	Description	Exp. sign	Source
Dependent variable			
Profitability (PfT)	Amount of profit obtained during the period measured by the natural log of the profit amount		Audited financial statements
Independent variables			
Loan Amount (LA)	This is the amount borrowed from the Banks measured by the natural log of the amount borrowed	+	Audited financial statements
Repayment Amount (RpA)	Regular or instalment payment by the borrower to the bank. Measured by the natural log of the amount paid on regular basis	-	Audited financial statements
Repayment Period (RpP)	Tenure or period which this borrower has to pay back measured by actual	+	Loan agreement

Variable	Description	Exp. sign	Source
	number of days provided after loan agreement		
Interest Rates (InR)	This is the cost for borrowing incurred by the borrower measured by interest rate charged by the bank	-	Audited financial statements
Restructured Amount (RsA)	This is the new loan amount revised after restructuring measured by the natural log of the restructured loan amount	+	Audited financial statements
Restructured Repayment Amount (RspA)	This is a new revised repayment amount after restructuring measured by the natural log of the restructured repayment amount	+	Audited financial statements
Restructured Interest Rate (RInR)	Revised interest rate after restructuring measured by actual revised interest rate	-	Audited financial statements
Restructured Repayment Period (RspP)	Revisited repayment period after loan restructuring measured by the actual number of days provided after restructuring	+	Audited financial statements
Location (LoC)	Area in which the project is implemented. Dummy variable: 1 if in Dar es Salaam and 2 if otherwise (outside Dar es Salaam)	-/+	Project document
Industry type (InD)	Economic sector to which the project belongs = 1 if it is an agriculture sector, =2 if it is a service sector and = 3 if it is a manufacturing sector	-/+	Project document
Implementation status (ImS)	Stage which has been reached by the project in the implementation progress. Dummy variable, 1 if complete and 2 if otherwise (ongoing)	-/+	Project document

4 Empirical Results and Discussion

4.1 Descriptive Results

Table 2 provides univariate results which show mean values, standard deviation and t-test. According to mean values ($\bar{X}$) and standard deviation (SD), it is observed that LA (with $\bar{X}$=4,387.13; SD = 8,634.11) is greater than RsA ($\bar{X}$=3,121.79; SD = 4,835.56). These results, even though no empirical studies have been conducted to assess the difference between loan amounts before restructuring and after restructuring, support those studies that consider that restructuring of loans usually leads to less loan amount

(Damayanthi et al., 2022; Rybak and Puskov 2020). However, the statistical t-test (t-value=1.9736, p-value=0.210) shows that the difference is not statistically significant indicating that the amount of loan before and after restructuring are not significantly different. While these results may support the study by Onyiriuba (2015), they may be contrary to a number of studies which have dealt with loan restructuring.

The issue of RpA (with $\bar{X}$=60.68; SD = 45.85) was observed to be less than RspA (with $\bar{X}$=69.40; SD = 43.52) indicating repayment amount (periodic payment) is greater after loans have been restructured. This is contrary to many studies which considered that loan restructuring is associated with reduced periodic payment amounts from clients to the bank which aims at reducing the respective financial burden to the clients (Damayanthi, *et al.*, 2022; Rybak and Puskov, 2022; Onyiriuba, 2015). Our results imply that restructuring of the loans seems to increase more financial burden to clients. The t-test (t-value – 1.985, -p-value = 0.445) however, shows that the difference is not significant.

In the case of the repayment period RpP (with $\bar{X}$=77.12; SD = 45.35), it was found to be less than the repayment period after restructuring – RspP (with $\bar{X}$=165.60; SD = 376.75). This indicates that, after restructuring, the number of months to repay is increased which is consistent with studies dealing with loan rescheduling as well as those arguing about increasing the repayment period (McGuinnes, 2014; Pishbakar, et at., 2018; Onyiriuba, 2015). Furthermore, the SD after restructuring implies that repayment periods differ widely among clients. This is also supported by the t-test (t-value = 1.994, p-value = 0.053) at 10% significance level indicating that restructured repayment period is significantly different from the period before the loan was restructured.

As far as the interest rates is concerned, the results indicate that before restructuring, InR (with $\bar{X}$=16.2%; SD = 2.6%) was slightly less than the interest rate after restructuring RsInR (with $\bar{X}$=16.3%; SD = 2.4%). The t-test results (t-value = 1.974) p-value = 0.847) show that there is no significant difference between the interest rates before and after the loan restructuring. This means that the bank does not use interest rate as one of the mechanisms in loan restructuring. The univariate results indicate that the dominant approach is the repayment period. As such, the bank does not use other techniques as provided in the Management of Risk Assets Regulations of 2010.

Looking at the project profits, results indicate that the projects' profits decreased from $\bar{X}$=1382.22; SD = 3,831.18) to $\bar{X}$=739.52; SD = 1,391.74) after loan restructuring. This implies that loan restructuring is not of the

advantage to clients as far as their project's profitability is concerned. The difference in performance, however, was found to be not significant (t-value = 2.018) p-value = 0.323).

Table 2: Univariate Statistics

Variable	Min	Max	Mean (x̄)	SD	Two-tailed t-test	
					t-value	p-value
LA (in millions TZS)	69.60	61,580.28	4,387.13	8,634.11	1.974	.210
RsA (in millions TZS)	62.16	33,245.83	3,121.79	4,835.56		
RpA (in millions TZS)	3.28	214.17	60.68	45.85	1.985	.445
RspA (in millions TZS)	3.08	515.36	69.40	43.52		
RpP(in months)	12	304	77.12	45.35	1.994	.053
RspP (in months)	4	2241	165.60	376.75		
InR (percentage)	.09	.20	.162	.026	1.974	.847
RsInR (percentage)	.10	.19	.163	.024		
PfT_bR (in millions TZS)	47.15	23,257.78	1,382.22	3,831.18	2.018	.323
PfT_aR(in millions TZS)	24.00	11,287.68	739.52	1,391.74		

Key: *PfT_bR-Profitability before restructuring, PfT_aR-Profitability after restructuring,* LA – Loan amount, *RpA – Repayment amount, RpP – Repayment period, InR – Interest rate, RsA – Restructured loan amount, RspA – Restructured repayment amount, RspP – Restructured repayment period, RsInR – Restructured interest rate*

4.2 Regression Results

Hierarchical regression analysis was conducted to determine the effect of loan restructuring on profitability of clients' projects. However, the hierarchical regression proceeded with correlation analysis as shown on Table 3. Correlation results indicate that LA ($r=0.368$, $p<0.01$), RpA ($r=0.891$, $p<0.01$), RpP ($r=0.585$, $p<0.01$), RsA ($r=0.336$, $p<0.01$) and RspA ($r=0.547$, $p<0.01$) were positively correlated with PfT at 1% significance level. On the other hand, interest rates both InR and RsInR ($r= -0.505$, $p<0.01$) and InT ($r=0.296$, $p<0.01$) were found to be negatively related with PfT. Other variables with high correlation are RpA and PfT (with $r=0.891$). This was considered to pose no threat to multicollinearity because correlation coefficient (r) is less than a threshold of 0.9 as suggested by Hair et al. (2010). However, an interesting observation is the correlation coefficient (r) between InR and RsInR ($r=1.000$). This shows that interest rates are identical before and after loan restructuring. This is consistent with the results obtained when doing t-test indicating that the bank remained with the same rate of interest despite restructuring of the loans. As such, there was multicollinearity between InR and RsInR hence RsInR was removed for further regression analysis.

Table 3: Correlation Analysis

	PfT	LA	RpA	RpP	InR	RsA	RspA	RspP	RsInR	LoC	InD
LA	.368***										
RpA	.891***	.288***									
RpP	.585***	.524***	.521***								
InR	-.505***	-.324***	-.362***	-.283***							
RsA	.336***	.604***	.328***	.411***	-.358***						
RspA	.547***	.403***	.541***	.322***	-.221**	.409***					
RspP	-.027	-.214**	.018	-.059	-.100	.023	-.240**				
RsInR	-.505***	-.324***	-.362***	-.283***	1.000***	-.358***	-.221**	-.100			
LoC	.124	.113	.041	.215**	-.208**	.066	-.103	.079	-.208**		
InD	-.296***	-.228**	-.174*	-.229**	.268***	-.214**	-.140	.066	.268***	-.368***	
ImS	-.020	-.205**	.037	-.081	.057	-.243**	.048	.022	.057	-.240**	.327***

Key: *PfT-Profitability, LA-Loan Amount, RpA-Repayment Amount, RpP-Repayment Period, InR-Interest Rate, RsA-Restructured Loan Amount, RspA-Restructured Repayment Amount, RspP-Restructured Repayment Period, RsInR-Restructured Interest Rate, LoC-Location, InD-Industry Type, ImS-Implementation Status*
***p<.01, **p<.05, *p<.1

Hierarchical regression results for testing the proposed hypotheses H1a, H1b, H2a, H2b, H3a and H3b are presented in Table 4. These results are presented for three models as identified in methodology section (section 3.0). For Model 1, which involved with loan variables before restructuring, the results show that RpA, RpP and InR contributed significantly to the regression model with F (1,81) = 104.639, p<0.01 and accounted for 83.8% of the variations in the projected profitability PfT. In this Model 1, two variables namely RpA ($\beta = 1.007$, t=13.697, p<0.01) as well as RpP ($\beta = 0.003$, t=2.173, p<0.05) were found to have significant positive relationship with PfT. On the other hand, InR ($\beta = -8.943$, t=-3.818, p<0.01) was found to have a significant negative effect on PfT. These results of Model 1 support H3a which predicted positive relationship between repayment period and profitability as well as H4a which predicted negative relationship between interest rates and profitability. However, the results do not confirm H1a on a loan amount since LA ($\beta = 0.016$, t=0.436, p>0.10) was found to be not significantly related to profitability of the projects. These results are not consistent with Cressy (1995) who considered that loan amount helps to put investment hence helping to generate profitability. One plausible reason could be established from studies conducted by Jappelli (1990); Kedir (2003) as well as Haynes *et al*. (1999), who observed that clients may not be getting the whole amount they applied for. Further, for the proposition that large banks may not be giving loans to small projects, as it could be observed in the profile, majority of the projects are still on-going (only 6 are complete) as such providing loan amount to big projects may take time to realize profit. Another hypothesis which is not supported by these results is H2a which predicted negative

relationship between repayment amount (RpA) and profitability (PfT). Our results indicate positive relationship implying that the periodic repayment does not increase the financial burden to the clients. This may be consistent with the perspective that repayment amount is considered to be a part of capital invested and not cost of doing business as interest expenses. These results, therefore, are not consistent with studies such as Mokhtar *et al.* (2012) which argued and found negative relationship.

For Model 2, loan restructuring variables namely Restructured Amount (RsA), Restructured Repayment Amount (RspA) and Restructured Repayment Period (RspP) were added. Adding these loan restructuring variables was done to test hypotheses H1b, H2b, H3b and H4b whose results are presented in Table 4. The results indicate that even in the Model 2, RpA, RpP and InR continued to contribute significantly to the regression model, $F(1,81) = 61.68$, $p<0.01$. The relationship between all variables and profitability was found to be strong ($R=0.93$) and accounted for 84.2% of the variation of profitability. However, adding RsA, RspA and RspP to the regression model accounted only 0.9% additional variation in profitability ($\Delta R^2 = 0.9$) and this change was not significant ($p>0.1$). The examination of coefficients of variables in Model 2 indicates that RpA ($\beta = 0.960$, $t=11.533$, $p<0.01$), RpP ($\beta = 0.004$, $t=2.422$, $p<0.05$) as well as InR($\beta = -9.877$; $t=-4.157$, $p<0.01$) are significant and have the same effect as in Model 1. However, coefficients for RpA and InR decreased while for RpP increased. All restructuring variables were not significant; hence hypotheses H1b, H2b, H3b and H4b were not supported. The introduction of restructuring variables, however, has an effect on coefficients and t-values of original variables, i.e., RpA, RpP and InR. This may imply that restructuring variables have indirect effect. These results are not consistent with studies conducted on restructured loans such as Damayanthi *et al.* (2022), Thobias (2019), Purnamawati and Yuanirta (2021) as well as Onyiriuba (2015).

Table 4: Summary of hierarchical regression for variables predicting profitability

	Variable	β	t	sr^2	R	R^2	Adj.R^2	ΔR^2	F	ΔF
1	LA	.016	.436	.000						
	RpA	1.007	13.697***	.379						
	RpP	.003	2.173**	.010						
	InR	-8.943	-3.818***	.029	.920	.846	.838	.846	104.639***	104.639***
2	LA	.021	.484	.000						
	RpA	.960	11.533***	.263						
	RpP	.004	2.422**	.012						
	InR	-9.877	-4.157***	.034						
	RsA	-.075	-1.401	.004						
	RspA	.094	1.444	.004						
	RspP	.000	-.494	.000						
					.925	.855	.842	.009	61.688***	1.525

Variable	β	t	sr^2	R	R^2	Adj.R^2	ΔR^2	F	ΔF
LA	.016	.381	.000						
RpA	.960	11.580***	.262						
RpP	.003	2.432**	.010						
InR	-9.048	-3.720***	.027						
RsA	-.084	-1.575	.005						
RspA	.100	1.545	.004						
RspP	.000	-.356	.000						
LoC	.015	.112	.000						
InD	-.127	1.625	.005						
ImS	-.078	-.352	.000	.929	.863	.843	.008	44.114***	1.305

N=109. LA-Loan Amount, RpA-Repayment Amount, RpP-Repayment Period, InR-Interest Rate, RsA-Restructured Amount, RspA-Restructured Repayment Amount, RspP- Restructured Payment Period, LoC-Location, InD-Industry Type, ImS- Implementation Status

****p<0.01, **p<0.05*

In the last model (Model 3) we introduced control variables namely location (LoC), industry type (InD) and implementation status (ImS). Results indicate that these variables explain only an additional 0.8% of the variation of profitability and the change in R^2 was not significant, F (3,8) = 44.114, ΔF =1.305, p >0.05). When control variables are added, the three variables (RpA, RpP and InR) continued to be significant like in models 1 and 2. These findings indicate that loan restructuring does not help clients of the bank to increase profitability level. As such, these findings seem to confirm that the main objective of the loan restructuring is focused on one side, i.e., increasing the profitability of the bank and not that of the client's project. It is thus considered as one of the mechanisms of reducing risk of default from clients who are facing financial difficulties. This is consistent with a number of studies including McGuinnes (2014); Onyiriuba (2015); Damayanthi *et al.* (2022); Rybak and Puskov (2020) as well as London Approach as argued by Kent (1999). Likewise, the findings are consistent with Management of Risk Assets Regulations of 2010 issued by the Bank of Tanzania which considers that banks are allowed to restructure loans for borrowers who are facing financial difficulties. We, however, observed that out of the four approaches allowed by the BoT (i.e. restructuring on Repayment Period, Restructuring on Repayable Amount, Restructuring of Instalments and Restructuring of Interest Rates), the bank seems to use only one which is Restructuring of Repayment Period (see Table 2). In addition, we found that out of 109 loans made to projects, 71 were restructured. These are too many to be restructured for the reason of financial difficulty. This may imply, among others, weakness in risk management especially during the selection process (adverse selection).

4.3 Alternative Analysis

Further analysis was conducted whereby control variables namely Location (LoC) Industry Type (InD) and Implementation Status (ImS) were considered

as moderating variables. In this further analysis the interest was to assess the interaction effect of loan variables and loan restructuring variables with moderating variables on profitability. The analysis was done using PROCESS Macro proposed by Hayes (2012). PROCESS Macro was considered appropriate because it incorporates a bootstrapping approach to regenerate the sample, provide the lower and upper confidence level, simplify the computations and reduce potential errors (Montoya and Hayes 2017). The results for the alternative analysis are presented in Table 5.

Results show that there are 21 interaction models. Out of the 21 interaction models only two interactions were found to be significant. Model 1 (R^2=0.196, MSE = 1.089) which is concerned with the interaction between Loan Amount (LA) and Location (LoC) was found to be positively significant ($\beta = 0.346$, t = 0.117, p=value = 0.04). Also model 5 (R2 = 0.785, MSE = 0.282) which is concerned with the interaction between repayment amount (RpA) and Industry Type (InD) was found to be negatively significant ($\beta = -0.173$, t = -0.173, p=value = 0.075). Hence moderating effect has been proved for loan amount being moderated by Location (LoC) and Repayment Amount (RpA) is being moderated by Industry Type (InD).

On individual moderators, the results show that Location (LoC) is a significant moderator when Loan Amount (LA) and Restructured Repayment Amount (RspA) are independent variables. For Industry Type (InD) the variable was significant when Loan Amount (LA), Repayment Amount (RpA), Restructured Amount (RsA), Restructured Repayment Amount (RspA) and Restructured Repayment Period (RspP) were independent variables. But Industry Type (InD) has negative influence implying that the more banks provide loans to agricultural projects, less profit will be generated by these projects. Alternatively, providing more loans to manufacturing industry is expected to generate more profits to the clients than services or agricultural projects. In case of Implementation Status (ImS), this was found not to be significant. These alternative results generally support the main results.

Table 5: Moderation Analysis

Model	Variable	β	SE	t	p for β	LLCI	ULCI
	Intercept	27.060	3.984	6.792	0.000	19.160	34.961
Model 1: R^2 =	LA	-0.369	0.197	-1.890	0.064	-0.760	0.002
0.169, MSE=	LoC	-6.885	2.374	-2.900	0.005	-11.592	-2.178
1.089	LA×LoC	0.346	0.117	2.962	0.004	0.114	0.577
		19.848	0.103	192.799	0.000	19.643	20.052
	Intercept						
Model 2: R^2 =	LA	0.159	0.058	2.727	0.007	0.043	0.275
0.150, MSE=	InD	-0.285	0.130	-2.197	0.030	-0.542	-0.028
1.114	LA×InD	-0.120	0.080	-1.503	0.136	-0.279	0.038
Model 3: R^2 =		19.871	0.105	189.728	0.000	19.663	20.078
0.100, MSE=	Intercept						
1.180	LA	0.198	0.059	3.375	0.001	0.082	0.314

Model	Variable	β	SE	t	p for β	LLCI	ULCI
	ImS	0.000	0.504	0.000	1.000	-0.999	0.999
	LA×ImS	-0.128	0.247	-0.519	0.605	-0.619	0.362
		19.875	0.053	375.263	0.000	19.770	19.980
	Intercept						
	RpA	1.128	0.064	17.491	0.000	1.000	1.255
Model 4: R^2 =	LoC	0.149	0.115	1.295	0.198	-0.079	0.378
0.767, MSE= .305	RpA×LoC	0.107	0.159	0.671	0.504	-0.208	0.422
		19.862	0.052	385.253	0.000	19.759	19.964
	Intercept						
	RpA	1.102	0.061	18.118	0.000	0.981	1.222
Model 5: R^2 =	InD	-0.182	0.065	-2.821	0.006	-0.310	-0.054
0.785, MSE= .282	RpA×InD	-0.173	0.096	-1.801	0.075	-0.363	0.017
		19.876	0.053	373.500	0.000	19.771	19.982
	Intercept						
	RpA	1.150	0.064	17.853	0.000	1.022	1.278
Model 6: R^2 =	ImS	-0.290	0.245	-1.185	0.239	-0.776	0.195
0.766, MSE= .307	RpA×ImS	0.084	0.474	0.178	0.859	-0.855	1.024
		18.792	0.665	28.241	0.000	17.473	20.112
	Intercept						
	RpP	0.017	0.009	1.875	0.064	-0.001	0.036
Model 7: R^2 =	LoC	-0.051	0.382	-0.133	0.895	-0.808	0.707
0.357, MSE= .843	RpP×LoC	-0.001	0.005	-0.248	0.805	-0.011	0.009
		19.885	0.091	219.568	0.000	19.705	20.064
	Intercept						
	RpP	0.014	0.002	6.807	0.000	0.010	0.019
Model 8: R^2 =	InD	-0.139	0.114	-1.221	0.225	-0.364	0.087
0.364, MSE= .833	RpP×InD	0.001	0.003	0.327	0.744	-0.005	0.006
		19.880	0.089	224.074	0.000	19.704	20.056
	Intercept						
	RpP	0.015	0.002	7.038	0.000	0.011	0.019
Model 9: R^2 =	ImS	0.125	0.431	0.290	0.772	-0.730	0.980
0.354, MSE= .846	RpP×ImS	0.005	0.019	0.252	0.802	-0.034	0.043
		19.870	0.096	206.645	0.000	19.679	20.060
	Intercept						
	InR	-20.503	3.746	-5.473	0.000	-27.932	-13.075
Model 10: R^2 =	LoC	0.083	0.212	0.393	0.695	-0.337	0.503
0.251, MSE= .982	InR×LoC	-4.378	9.115	-0.480	0.632	-22.451	13.695
		19.862	0.099	200.195	0.000	19.665	20.059
	Intercept						
	InR	-18.879	4.206	-4.488	0.000	-27.219	-10.539
Model 11: R^2 =	InD	-0.185	0.129	-1.439	0.153	-0.441	0.070
0.263, MSE= .966	InR×InD	2.771	5.822	0.476	0.635	-8.773	14.316
		19.877	0.095	208.950	0.000	19.688	20.066
	Intercept						
	InR	-21.128	3.603	-5.864	0.00	-28.272	13.983
Model 12: R^2 =	ImS	-0.002	0.422	-0.004	0.997	-0.835	0.838
0.248, MSE= .985	InR×ImS	0.154	18.635	0.008	0.993	-36.795	37.104
		19.881	0.126	158.275	0.000	19.631	20.131
	Intercept						
Model 13: R^2 =	RsA	0.297	0.096	3.107	0.003	0.107	0.487
0.126, MSE=	LoC	0.274	0.279	0.980	0.330	-0.282	0.829
1.273	RsA×LoC	0.084	0.205	0.410	0.683	-0.324	0.493
		19.877	0.126	158.370	0.000	19.627	20.127
Model 14: R^2 =	Intercept						
0.167, MSE=	RsA	0.258	0.096	2.699	0.009	0.068	0.441
1.213	InD	-0.360	0.162	-2.221	0.029	-0.068	-0.037

Model	Variable	β	SE	t	p for β	LLCI	ULCI
	RsA×InD	-0.033	0.128	-0.262	0.794	-0.288	0.221
		19.861	0.128	155.357	0.000	19.607	20.116
	Intercept						
Model 15: R^2 =	RsA	0.327	0.099	3.303	0.001	0.130	0.524
0.127, MSE=	ImS	0.025	0.577	0.043	0.966	-1.125	1.175
1.271	RsA×ImS	-0.275	0.304	-0.905	0.368	-0.880	0.330
		19.896	0.093	213.954	0.000	19.711	20.080
	Intercept						
	RspA	0.557	0.087	6.369	0.000	0.384	0.730
Model 16: R^2 =	LoC	0.385	0.204	1.889	0.062	-0.19	0.790
0.296, MSE= .923	RsA×LoC	0.267	0.191	1.398	0.165	-0.112	0.647
		19.866	0.093	214.681	0.000	19.683	20.050
	Intercept						
	RspA	0.495	0.089	5.574	0.000	0.391	0.671
Model 17: R^2 =	InD	-0.280	0.116	-2.404	0.018	-0.511	-0.049
0.297, MSE= .921	RspA×InD	-0.135	0.138	-0.978	0.330	-0.410	0.139
		19.890	0.095	210.205	0.000	19.702	20.077
	Intercept						
	RspA	0.464	0.106	40371	0.000	0.254	0.675
Model 18: R^2 =	ImS	0.058	0.456	0.126	0.900	-0.846	0.961
0.265, MSE= .963	RspA×ImS	-1.405	1.186	-1.184	0.239	-3.757	0.947
		19.896	0.111	176.125	0.000	19.676	20.117
	Intercept						
Model 19: R^2 =	RspP	-0.001	0.001	-1.392	0.167	-0.002	0.000
0.034, MSE=	LoC	0.314	0.240	1.311	0.193	-0.161	0.789
1.266	RspP×LoC	-0.001	0.001	-0.725	0.470	-0.002	0.001
		19.873	0.106	187.175	0.000	19.662	20.083
	Intercept						
Model 20: R^2 =	RspP	0.000	0.000	-1.142	0.256	-0.001	0.000
0.070, MSE=	InD	-0.348	0.140	-2.480	0.015	-0.626	-0.070
1.218	RspP×InD	0.000	0.001	0.405	0.686	-0.001	0.002
		19.903	0.121	164.370	0.000	19.663	20.144
	Intercept						
Model 21: R^2 =	RspP	-0.001	0.001	-0.918	0.361	-0.002	0.001
0.017, MSE=	ImS	0.429	1.080	0.398	0.692	-1.712	2.571
1.288	RspP×ImS	-0.006	0.012	-0.496	0.621	-0.031	0.018

5 Conclusion and Polcy implication

The main objective of this study was to examine the effect of loan restructuring on the profitability of clients' projects. Independent variables were divided into two categories; before loan restructuring (Loan Amount, Repayment Amount, Repayment Period, and Interest Rate) and after loan restructuring (Restructured Amount, Restructured Repayment Amount, Restructured Repayment Period, and Restructured Interest Rate). Using hierarchical linear regression, results indicate that the Repayment Amount and Repayment Period have a positive influence on the profitability of clients' projects while interest rate was found to be negatively related to profitability. Loan restructuring increased the influence of the repayment period on profitability while reducing the effect of repayment amount and interest rates on profitability.

This study makes both theoretical and practical contributions. The theoretical contribution is linked to the risk management theory as well as asymmetrical information theory by emphasising the importance of banks managing risk appropriately given the asymmetrical information matter. The study also helps in understanding issues around loan restructuring and profitability in the Tanzanian context, a developing country. This knowledge extends the study conducted by Nuwagira, Hakuzwimana and Uwimpindu (2023) in Rwanda that focused on the asset quality of banks. It contributes also to the London approach perspective. In addition, the study builds and extends previous studies which have been concerned with the effect of loan restructuring on banks' profitability as well as loan recovery by extending to the clients' projects. Practically, this study contributes first to the policy makers and central banks to consider the broad perspective of loan restructuring. Loan restructuring should not be considered for financial distressed clients, but also as a way of doing business to help banks and businesses expand. This will help them to formulate regulations which cover the performance of clients as one of the objectives in the loan restructuring. Second to the banks, the results indicate that only repayment period is used, hence there is a need for using other terms of loan restructuring which may help clients to be profitable as well. Of particular interest, according to the results, it includes loan amount and interest rates. Furthermore, the study provides a starting point for using loan restructuring as a tool to manage loans on the part of both banks and clients. In that aspect, the negotiation has to consider the benefits of restructuring to both sides.

While the study offers significant contributions, there is a need for future research in this domain based on the limitations of this study. First, this study used only one bank; it would be useful and interesting to apply the methodology used in this study to conduct studies on many other banks. This can help to generalize the results beyond one bank. Second, the study used secondary data, the use of primary data or interpretive perspective which can allow in-depth analysis and could help to identify issues pertaining to the relationship between loan restructuring and profitability of clients' projects. Finally, the data assumed the cross-sectional aspect, however, profitability may also have long-term characteristics hence using time series data may be recommended as an area for further research. Furthermore, the study used profit as a measure of project performance, as such other measures like timely completion of the project, customer satisfaction, and technical performance can be used accordingly.

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