Loan Características and Loan Performance at Higher Education Loans Board in Kenya

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Abstract

The aim of Higher Education Loans Board is to enhance access and retention of qualified needy students in university education through loans. The main objective of this study is to determine the loan characteristics and the effects they have on loan performance among students' loanees owing Higher Education Loans Board. The study also seeks to study the specific variables which include effect of loan size, interest rate and loan tenure on loan performance and the moderating effect of unemployment on the relationship between loan characteristics and loan performance at Higher Education Loans Board in Kenya. The study adopted Moral Hazard Theory, Adverse Selection Theory and Financial Intermediation Theory to support the relationship between the study variables. A descriptive research design was adopted in this study since it gives an explanation to a subject through the creation of a pool of events, problems and people through data collection. The target population of the study comprised of loan performance data for the Tertiary, Undergraduate and Post Graduate loanees for the period 2009-2018. The study utilized secondary data to make inferences and conclusions about the study population. Document analysis of Higher Education Loans Board statistics (specifically financial data annual disbursement and recovery reports) was used. The data on unemployment rate was obtained from Kenya National Bureau of Statistics .The data was collected using a document review guide. The data was analyzed using Statistical Package for Social Sciences. The tests that were carried out in the study were Heterosedasticity, Mu1ticollinearity, and Autocorre1ation and pane1 unit root test. Descriptive and inferential (multiple regression) analysis were utilized in the study. The study determined that there is a significant relationship between loan sizes, loan tenure and loan performance of loans disbursed by Higher Education Loans Board. Interest rate is an area that was not conclusively studied hence; the study determined that interest rate does not impact loan performance because it is constant across the years of study. Unlike other studies conducted in the same field, this research determined the moderating effect of unemployment on loan characteristics and loan performance. The study determined that unemployment has a negative significant relationship with loan performance. The study recommends that loan characteristics (loan size and loan tenure) should be considered by Higher Education Loans Board and government policy makers. The unemployment rate should also be considered and beneficiaries given at least two years after completing school to start paying their loans.

Keywords: loan characteristics, loan performance, loan tenure, loan size and Higher Education Loans Board.

1.0 Introduction

Background Information

Over the past few years, the world has witnessed an increase in demand for higher education (Ngali, Senaji&Gesami, 2018). This has been informed by the notion that education is the key pillar of nations. In reaction to this mounting demand for higher education all over the globe, various governments came up with student loan schemes which aim at facilitating students in their pursuit for education which spans across various educational levels. Shen and Ziderman (2008) put forward that there is presence of government-sponsored loans schemes for students in over 70countries in different regions across the world. The loans schemes for students which are largely focused on higher education are of significant interest to governments as they provide solutions to a variety of pressing policy issues faced by governments (Mussa, 2015).

The students loan schemes has become an option of financing high education and has gained prominence in African countries which include but not limited to Kenya, Tanzania, Ghana, Namibia, Nigeria, South Africa (Nyahende, 2013). Recently, a number of countries have also followed suit such as Uganda and Rwanda all in East Africa (Onen, Ajuaba, Oceng, &Ndaruhutse, 2015).Recently, there has been however a high increase in the default level of students' loans.

According to Darolia (2013), the increase in default rate loans to students has brought various concerns about the public financial risks relating to nonperforming debts and the financial difficulties faced by many students. The economic burden of students as well as that of governments is reduced through the students' loans. However, high rate of loan default has been a matter of concern to the policy makers. This is because high levels of defaults lead to smaller amount of funds to be disbursed as loans to other and upcoming students (Onen, Ajuaba, Oceng & Ndaruhutse, 2015). This is turn results in higher budget allocation for such loan schemes by the government (Mussa, 2015). Consequently, it negatively affects the process of budgeting and budget making.

In the case of Kenya, HELB is the state corporation authorized to disburse loans to students and to recover the same upon maturity. The fund represents a pool from which finances can be gathered to finance higher education and help students. However, according to John stone (2015), there are low rates of loan recovery and the proportion of the debt's portfolio which is at risk is high. This is causing a serious threat to sustainability of there revolving fund because the amounts recovered from past students, and expected to be disbursed to subsequent students is not enough to cover the demand for education funds. The low rates of students' loans recovery can be ascribed to a number of issues among them being the financing institutions' explicit variab1es which can be controlled by the lending organization while others are external factors (Nawai, 2010; Wafa & Malik, 2015). Therefore, the study seeks to put such elements into perspective

Loan Performance

In addition, the availability of financial services helps in improving economic and social status of the poor (Fikirte, 2011; Mokhtar et al., 2012).Furthermore, high repayment rate enables the borrowers to obtain higher amount of next loan (Fikirte, 2011). In general, good repayment performance is an indicator of how efficient the management of lending institutions is (Pasha &Tolosa, 2014). Generally, when the loans are properly managed the negative impact on the tax payer is reduced.

Lending entails issuing out creditors individuals for various purposes (Kibrom, 2010). The critical role of credit in terms of economic development is not in doubt. Nevertheless, the surge in the rates of default brings a lot of challenges to the institutions that lend (Mussa, 2015). According to (Nyahende, 2013) an upsurge in defaults in terms of repayment of can result in grave implications. It may compel the financial institutions to cease from refinancing the defaulters throwing them into a continuous cycle of low productivity.

Loan Characteristics

Loan characteristics refer to the various attributes of loans such as loan size, loan tenure, default penalty and interest rate (Brutscher, Heipertz & Hols, 2017).The size of the loans matter when it comes to loan repayment. In a situation where the loan tenure is a very short time period, the possibility of borrowers generating investment returns is low for such periods (Nawai & Shariff, 2012). Conversely, in the case where the loan tenure is very lengthy, borrowers tend to redirect extra money on consumption or other uses that are not productive. Larger loan size tends to increase the anticipated profit of a borrower for the reason that the net return has a positive correlation with the amount of loan; therefore, in most cases the borrower has preference for larger loans (Pasha &Tolosa, 2014).

Interest rate serves as one of the key loan characteristics. A surge in the interest rates often tend to impact on the decision of the low risk borrowers who forgo the loans due to loss of profits(Firafis, 2015). The consequence of this is an unfavorable compositional result as higher interest rates add to the overall risk of the pool of applicants (Mussa, 2015). When the rates are high the most probable borrowers would be those whose potential returns are high albeit lower probability. According to Wafa and Malik (2015), due to the need towards attaining a good composition and lowering the portfolio risk, 1enders may put the rates if interest at a level that is below market clearing and ratio of borrowers owing to their preference over project risk run counter.

Loan tenure also determined the repayment performance. Mussa (2015) observed that an implication of a short 1oan term is that the borrowers' ability of generating revenue for the purposes of repayment is limited. In addition, where the loan term is lengthy, borrowers are inclined to be extravagant which ultimately diminishes his abi1ity to pay. Thus, for the best results, there is need for a balance between the cash patterns and the loan terms to promote cash flow budgeting by the clients. Woolcock (2008) further observed that if collateral (physical) was to be a prerequisite for borrowing, lending firms could be unable to collect the loan for reason of lack of physical collateral.

Higher Education Loans Board in Kenya

HELB is an institution whose mandate is to issue bursaries, 1oans, and scholarships for training at pub1ic institutions, which are renowned by the Ministry of Education of Kenya (Mussa, 2015). From HELB loans, most Kenyan citizens have ended up achieving their academic goa1s by studying the degree level. This institution was estab1ished by the government in July 1995 through an act of par1iament and was given a mandate to manage the student's loan scheme.

This was geared towards making sure that students with inadequate funds are able to access education at higher leve1s. Among the additional responsibilities of the board is the recovery of loans when they are outstanding and which were issued to previous university students from 1953 through HELF; a previous body. The loans board operates under a revolving funds model. Kenyan students undertaking higher education and have financial difficulties can benefit from the fund. The fund was created as an alternative to the funding provided by the exchequer which stands at 40 percent of the national budget (Mussa, 2015).

The Higher Education Loans Board is the leads in as far as higher education financing in Kenya. It is a State Corporation under the then Ministry of Higher Education, Science and Techno1ogy (Mussa, 2015). HELB was estab1ished by an Act of Par1iament (Cap 213A) of 1995 which provides for the formation of a board of management whose mandate is to disburse bursaries, loans and scho1arship to enable students from low income families to enroll in recognized higher education institutions and receive education. It provides inexpensive bursaries, loans and scholarship. The main responsibility bestowed upon the agency is finding sources of funds, selection of needy students and disbursement of loans and bursaries. The Higher Education Loans Board had originally been advancing loans to students in public universities and to undergraduate students only. Overtime the board has widened its coverage and currently it advances loans to private universities' students and also to post graduate students studying in local and private chartered universities. After its establishment, the boards set up mechanisms to enable it collect all outstanding loans. These proved to be a difficult task as the records handed over from the previous loans scheme were incomplete. This proved to be an impediment into the immediate execution of the recovery process as it took time before the board could align all the records received in order to determine how much loans people had been awarded, how many were repaying and at what rate, how many had cleared their loans and how many had outstanding loans. As mandated by the Act, the Board has managed to recover funds issued previously to Kenyans.

The HELB Act spells out the responsibilities and obligations of employers and loanees. Some of the elements include the fact that a loanee is required within one year of completion to provide updated personal information to the board and to initiate the repayment process (section 15(1) (Mussa, 2015). Second, an employer is required to inform HELB within three months of employment of a loanee (Section 16(1). Further, any loanee who does not to meet the requirements within the set time shall, be culpable of an offence and is considered to be in default. Such a person is liable to a fine of not less than Kshs.5000.00" (HELB Act, 16(2)). Lastly, where an employer without logical reason fails to notify the Board of a loanee's employment within the set time period will be held culpable of an offense and predisposed to a fine of more than 3,000 shillings per month or that he fai1s to let know the Board of such emp1oyment" (HELB Act, 17(2)).

HELB offers a range of products to its clients. The products that are offered by the institution form the base of this study. The products that are of great interest include alternative loan (HELB Financed), Training Revolving Fund (Public Servants) and Training Revolving Fund (KRA Employees. Alternative Loan (HELB Financed) is product tailored for the salaried Kenyans doing undergraduate, masters and doctorate degrees on part time or fulltime basis. The loan interest in this category is 1% per month; repayment period is 48months.The amount awarded varies from Kshs 100,000.00 up to Kshs 200,000.00 for Master's and Doctorate.

Training Revolving Fund was introduced with an ultimate goal of enabling the public servants to access funds at favorable interest rates for the purpose of training in order to improve knowledge and proficiency deemed vital for improving performance as well as achieving the National development goals. The product covers both short and long courses. For the whole study period, one is awarded a minimum of Ksh. 30,000 and maximum of Ksh 500,000 with loan interest rate of 0.33 percent per month with a repayment period of 72months. Training Revo1ving Fund (KRA Employees) is a product between arising from the partnership between KRA and HELB meant to make possible for the KRA employees to build skills vital for performance. For the whole study period, one is awarded a minimum of Ksh. 30,000 and a maximum of Ksh 500,000 with loan interest rate of 0.33 percent per month under a 48-monthrepayment period.

Unemployment

If students cannot get employment upon graduation or lose their job at some point during repayment, then they may have higher probability of defaulting. It is reported that borrowers who failed to get unemployment exhibited83% rise in their probability of default over their initial probability (Woo, 2010). In other studies, on defaults, there have been consistencies in their findings due to the fact that a job loss leads to lack of finance to clear the loan debts (Monteverde, 2010). One of the latest studies found that unemployed borrowers are 2 times likely to default than those employed (Hillman, 2014).

Statement of the Problem

The toughest part of financial intermediation is loan recovery. Information from HELB indicated that the loan performance is at 62.5% (HELB, 2015). The data is an indication that loan performance has been increasing at a slow rate with the non-performing loans level is at 38%. It is also indicated that more than 67,000 beneficiaries of the HELB financing risk being listed with the CRBs over unpaid student loans estimated at sh.6.5 billion. The board has indicated that about 67,093 former university students owe the agency 6.5 billion (HELB, 2015). In accordance to 50(1) of the CRB Regulations, financial institutions are required to list both positive and negative performance of all loans. Studies have linked loan characteristics and loan performance; this has however raised questions of the extent and nature of this relationship. This will be the main concept in this study. This research sought to ascertain if loan characteristics significantly impact performance or recovery of loans by HELB.

Objective of the study

The General objective of this study was to investigate the effect of loan characteristics on loan performance at Higher Education Loans Board in Kenya. The specific objetives of the study were: to establish the effect of loan size on loan performance at Higher Education Loans Board in Kenya; to determine the effect of interest rate on loan performance at Higher Education Loans Board in Kenya ;to ascertain the effect of loan tenure on loan performance at Higher Education Loans Board in Kenya and to determine the moderating effect of unemployment on the relationship between loan characteristics and loan performance at Higher Education Loans Board in Kenya.

Scope of the Study

The research focused on loan characteristics and loan performance at Higher Education Loans Board in Kenya. Therefore, the conceptual scope was loan size, interest rate, loan tenure, and unemployment and loan performance. The study focused on HELB in Kenya, and the loans performance data collected over the past 10 years. The data used in the study covered the period between 2009 and 2018.

2.0 Literature Review

2.1.1 Theoretical Review

Moral Hazard Theory

Moral Hazard Theory originated from Akerlof (1970). Trezzini (2005) defines moral hazard as the inherent issues that arise in case where the buyer is not skeptical enough to study the motives of the seller. Contractual agreements must be in good faith, when it does not exist moral hazard takes effect. This is because it is difficult to judge the quality of the service, the service is irreversible, and the result is uncertain as a result of external factors (Japelli& Pagano, 2005). Consequently, moral hazard takes effect after closure of contract. It is defined by engaging in activities that are remote and unknown to the financial intermediary (Japelli& Pagano, 2005). The financial intermediaries over the years have had to deal with the problem of moral hazard. It is a phenomenon that arises due to hindsight by the lender and it gives the borrower an advantage in terms of what the money is used for. The borrower may fail to act in good faith and redirect the finances in other activities other than those stipulated in the loan contract. In technical terms it would mean that the individual client is acting ultra vires. The behavior goes against the terms of the contract and exposes the lender to certain risks associated with repayment power (Japelli& Pagano, 2005). Therefore, research has shown that information asymmetry has negative consequences. It leads to excessive loan portfolio and disparity in allocation of credit. Institutions have bemoaned the cost of monitoring loans; therefore, the problem is expected to continue. In relation to this study, loans issues to students may sometimes be used for other purposes other than that of schooling. Cases arise in which the loanee cannot be trusted to adhere to their obligation. Failure to adhere to the provisions of the contract means that lenders will have problems with raising the needed money to pay back the financial institution.

Adverse Selection Theory

Akerlof (1970) developed the adverse selection theory through the study of quality ambiguity. The scholar developed the theoretical model and reached the conclusion that financial markets deal with the problem of quality ambiguity. The theory influences the activities of the different operators in the financial market environment. Therefore, the work developed by Akerlof (1970) explains the lemon principle. The example that was used to explain the principle is in the automobile market. The marketing and sale of cars show the existence of asymmetry in information. Adverse selection in lending results from information asymmetry. According to Nayyar (1990) information asymmetry results from existence of an imbalance in level of knowledge between the contracting parties. The contracting entities rely on the difference in information as leverage in transaction. In the context of cars, an individual buyer is only in a position to determine the quality of a car if they have come into direct contact with it. The seller of the car is at an advantageous position because they have access to the car and are aware of the faults (if any) from the manufacturer (Akerlof, 1970).

Under this sort of environment, the buyer does not have the ability to tell the difference between a low quality and high-quality car. It means that the quality of goods in the market is undermined extensively due to differences in knowledge. The problem of adverse selection arises due to inability to extensively audit the desires and motive of the sellers. In financial intermediation, adverse selection comes into effect when the lender does not understand the motive of the loanee. The lenders have made attempts to deal with the problem through placing high interest rates on high risk loanees. Further, studies by A boody & Lev (2000) have indicated that insider trading is one of the main reasons behind existence of information asymmetry. The lenders have fallen short in terms of researching the main aspects that lead to asymmetry. The simplistic way through which lenders are dealing with the problem is through higher interest rates. It is not the best way of dealing with the problem because it may deny an individual with proper credit rating an opportunity to gain access to a loan.

Financial Intermediation Theory

Financial intermediation Theory was developed due to existence of deficit within the financial market. It means that there is demand and supply of finances within the economy. On one hand, the demand side has shortage of funds while the supply has excess of funds. The institutions that bring together the demand and supply are known as financial intermediaries. According to Seed (2005) various institutions play the role of financial intermediation and they include insurance firms, banks, mutual and pension funds. The firms come in deferent ways between two parties and help to facilitate trading. HELB is an intermediary through whom the Kenyan Government channels funds for financing higher learning to her eligible citizens and it's tasked with the recovery of the same upon maturity. Other than the annual recovery amounts and government capitation, the board mobilizes funds from various stakeholders for lending to needy students. The agency plays the intermediation role on behalf of the Kenyan government.

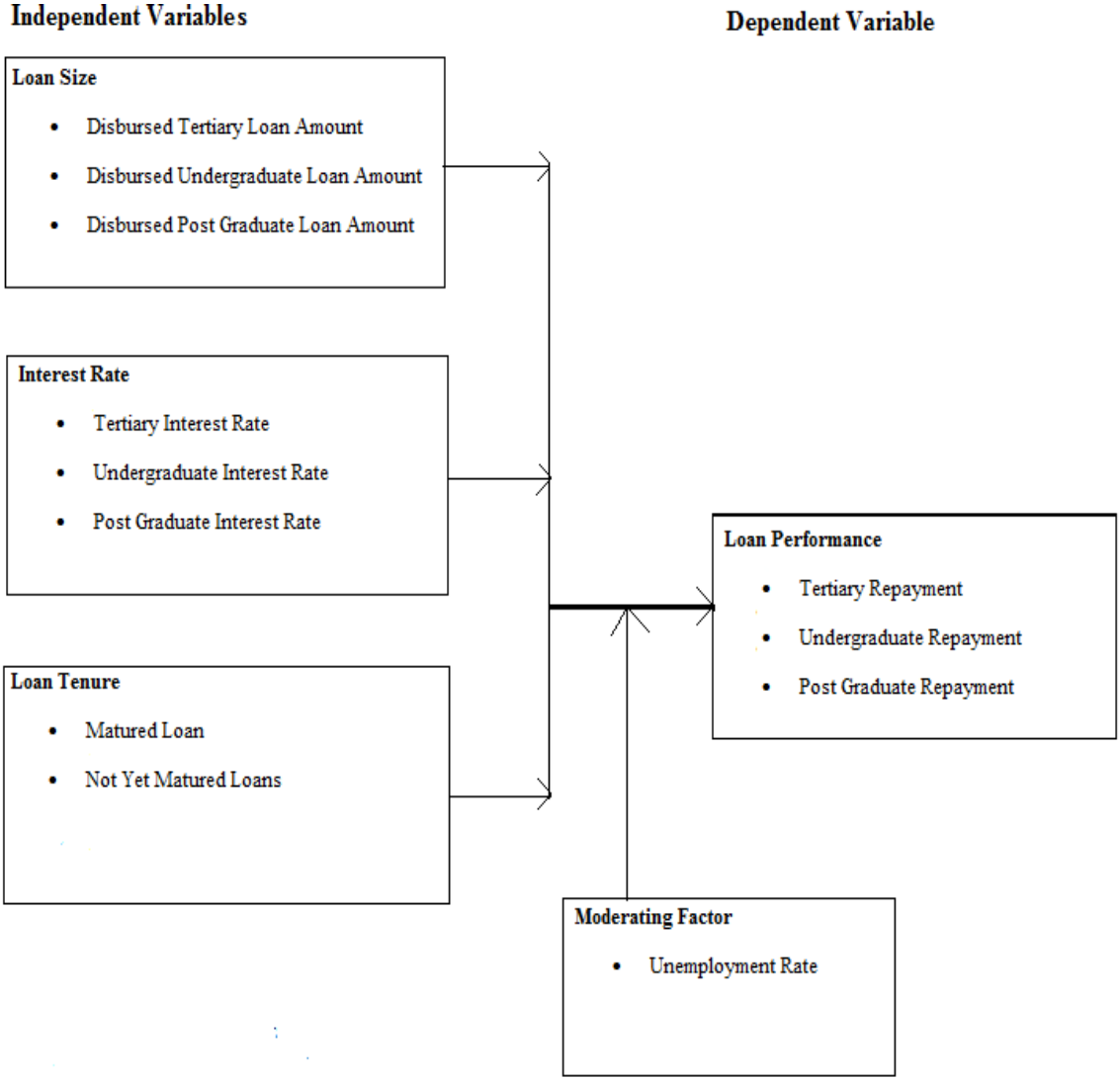
2.1.2 Empirical Review

Tijani, Zakiya, Arifur Rahman and Mohammed (2018) carried out a study on the determinants of loan repayment performance of SMEs in Ghana. The research was conducted through statistical regression model. It revealed that loan size put forth had significant negative effect on performance of the loans. The study concluded that higher the size of loans, the higher the likelihood of poor loan performance (Tijani et al., 2018). However, the study was conducted in a foreign context. Therefore, because of the differences in economic environment to Kenya, the outcome may not be applicable locally. Osman and Ramakrishna (2017) did an investigation on the determinants of loan repayment performance in ACSI. The study employed descriptive statistics and multinomial logit model for the analysis. While loan repayment performance served as dependent variable, sex, age, education level, loan size, interest rate, loan tenure, training and monthly sale serve as the independent variables. The study revealed that loan size is significant in predicting loan repayment performance. Tijani*et al*. (2018) carried out a study on the determinants of loan repayment performance of SMEs in Ghana. The outcome of the study showed negative relationship between loan repayment and loan size and rate of interest. Unlike the context of HELB in Kenya, the above study covered profit making organizations. In Kenya HELB is an arm of government set up for purposes of lending to students. Osman and Ramakrishna (2017) did a research on the factors affecting loan repayment performance in ACSI. The study employed descriptive statistics and multinomial logit model for the analysis. Age, loan size, sex, education level, interest rate, loan tenure served as the predictor variables where loan repayment performance was the dependent variable. The results from the analysis of the study indicated that interest rate significantly and negatively affects loan repayment performance

Shu-Teng, Zariyawat, Hamim and Annur (2015) examined the performance of microfinance repayment in Malaysia. The study looked at the characteristics of SMEs in the country in relation to repayment. The study used regression model and determined that there is positive and significant relationship between loan repayment and the rate of interest charged. However, the study focused on SMEs in Malaysia unlike this study which will be focusing on Higher Education Loans Board. Additionally, this study will also make use of moderating factors within the financial intermediary environment. Osman and Ramakrishna (2017) investigated the determinants of loan repayment performance in ACSI. The research utilized descriptive statistics and multinomial logit model for data analysis. The independent variable was loan repayment performance served while sex, education, age, loan size, loan repayment period, interest rate and training were the independent variables of the study. The study determined that time period taken to repay the loan had significance on the performance of loans. However, the study did not take into consideration other factors that may impact the performance of loans.

Conceptual Framework

The conceptual framework depicts the relationship among the study variables, loans characteristics and indicated by loan size, interest rate and loan repayment period serve as the independent variables while loans performance is the dependent variable. The external environment serves as the moderating variable as it is proposed to influence the linkage between loans characteristics and loan performance**.**



3.0 Research Methodology

The study adopted a descriptive research design. The target population of the study comprised of loan performance data for the Tertiary, Undergraduate and Post Graduate loanees for the period 2009-2018.The study adopted a census technique where all the data element provides by HELB for the years under study were analyzed. Due to nature of this study, it was not possible to create a sample. The study employed the following Empirical Model

$Y_{it} = \beta 0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_3 + \epsilon_{it}$……Model 1

Where: i-Refer to Tertiary, Undergraduate and Post Graduate HELB loanees.

t-2009-2018,

Y –Loan performance for Tertiary, Undergraduate and Post Graduate HELB loanees.

β0 - Constant

X_1 – Loan size.

X_2 – Interest rate.

X_3 – Loan tenure.
$\beta_1 - \beta_4$= Regression coefficients
Є= Error term

The study adopted secondary data to make inferences and conclusions about the study population. Document analysis of HELB statistics (specifically financial data annual disbursement and recovery reports) was used. The data on unemployment rate was obtained from Kenya National Bureau of Statistics. Descriptive and inferential analysis was utilized in the study. The study employed the following diagnostic tests: Hausman test, Heterosedasticity, Mu1ticollinearity, and Autocorre1ation and pane1 unit root test.

4.0Results and Discussions.

4.1 Correlation Matrix on Loan Performance

Loan characteristic on loan performance were investigated based on three determinants: loan size, interest rate and loan tenure. The result obtained from the study shows that interest rate and loan performance could not be measured because the value of interest rate was constant. Further, it was determined that the relationship between loan size and loan performance was negative (-.010) and there was positive relation between loan tenure and loan performance (.062). The result is summarized in table 1 below.

Table 1: Correlation Matric Table Results

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	NYM	Loans Disbursed
1	1	2.866	1.000	.01	.00	.00
	2	.128	4.737	.67	.03	.01
	3	.006	21.004	.31	.97	.99

4.2.1 Regression Analysis Tests

To determine the relationship that exists among the variables the study conducted linear and multiple regressions. The reason behind this analysis was to determine the changes in loan performance in relations to the variables under study.

4.2.2 Regression Results of Loan Size on Loan Performance

The study used simple regression analysis in order to determine the linear relations between loan size and loan performance. The simple linear equation used was LP= α0+ α1LS + £

Table 2 Regression Results of Loan Size on Loan Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.763	.582	.530	429705207.497

Based on the model summary above, the R squared is .53 which indicates that more than half of loan performance is explained by loan size. 53 percent of loan performance is explained by loan size. R provides evidence of direction and strength of the variables. The Pearson correlation R was large (.763) indicating that there is a strong positive correlation between loan size and loan performance. An ANOVA analysis was carried out to determine the significance level of loan size on loan performance. The null hypothesis is that there is no relationship between loan size and loan performance. Table 3 below shows the ANOVA test outcome for the two variables. The Sig. 0.010 is less than 5% significant value. Therefore, reject the null hypothesis and accept the alternative hypothesis which indicates there is significant contribution of loan size towards loan performance.

Table: 3 ANOVA Test

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2058606199819794690.000	1	2058606199819794690.000	11.149	.010[b]
	Residual	1477172522800137980.000	8	1846465653500 17248.000		
	Total	3535778722619932700.000	9			

The regression coefficient table below shows that at coefficient of .161 loans size is a good predictor of loan performance. The coefficient model was given as shown in the table 4 below.

Table 4: Regression Coefficient Results of Loan Size on Loan Performance

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.536	7.946		1.708	.126
	Loans Amount	.161	.048	.763	3.339	.010

4.2.3 Regression Results of Interest Rates on Loan Performance

The analysis on interest rate on loan performance did not show any form of relationship. The study established elements of multi collinearity which was being caused by the interest rate data. The data for interest rate is constant hence it shows missing correlations as illustrated in table 5 below.

Table 5 Regression Findings on Interest Rates on Loan Performance

		Performing Loan	Post Grad Interest	Undergrad Int
Pearson Correlation	Performing Loan	1.000	.	.
	Post Grad Interest	.	1.000	.
	Undergrad Int	.	.	1.000
Sig. (1-tailed)	Performing Loan	.	.000	.000
	Post Grad Interest	.000	.	.000
	Undergrad Int	.000	.000	.
N	Performing Loan	10	10	10
	Post Grad Interest	10	10	10
	Undergrad Int	10	10	10

4.2.4 Regression Results on Loan Tenure on Loan Performance

The analysis of loan tenure on loan performance indicated that correlation coefficient, R was positive .808. There is strong and positive correlation between the dependent and independent variable. 65.3 percent of loan performance is explained by loan tenure. The adjusted R square shows that other factors other than loan tenure explain 55.4 percent of loan performance. The results are showed in the tabled 6 provided below

Table 6: Regression Finding of Loan Tenure on Loan Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.808[a]	.653	.554	7.588

The ANOVA table indicated an F Statistics of 6.55 which helps the research to determine the explanatory ability of the model. The p value (sig) was .025 which is less than .05 (significant value). It was determined that there is strong correlation between loan tenure and loan performance.

Table 7: ANOVA Results of Loan Tenure on Loan Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2310334080935012400.000	2	180.000	6.599	.025[b]
	Residual	1225444641684920320.000	7	912.000		
	Total	3535778722619932700.000	9			

The table 8 below shows the coefficients loan tenure and loan performance. The significance value was .058 for yet to mature and .545 for matured. The results show that yet to mature loan is significant while matured loan tenure is not significant. Further, positive beta of 1.05 in not yet matured loans indicates that one unit increase in yet to mature loan leads to an increase in loan performance by .078 units.

Table 8: Regression Coefficient Loan Tenure on Loan Performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.982	9.809		1.312	.231
	Matured	-.044	.070	-.296	-.636	.545
	NYM	.078	.034	1.056	2.268	.058

The outcome of this study is in line with Osman and Ramakrishna (2017) who determined that the period of loan repayment plays a significant role in loan performance. Other scholars who researched the above area and had similar outcomes include Al-Sharafat, Qtaishat and Majdalawi, 2013; Onyeagocha et al., 2012; Roslan and Mohd, 2009.

4.2.5 Regression Results on Multiple Regression Coefficients Model

Multiple regressions are carried out to determine combined relationship between loan characteristic elements and loan performance. It means that the regression model has more than one independent variable explaining the dependent variable. The coefficient model has considered loan size and loan tenure as the two predictors in the model. The Interest Rate was constant hence was considered as a non-predictor due to multicollinearity. The values from regression model (Table 9) coefficients of loan size (loan disbursed) and loan tenure (Not yet Mature) -.010 and .062 respectively. The constant was 9.921. Therefore, the model equation is shown below: Y = 9.921+.062LT-.010LS where LT (Loan Tenure) and LS (Loan Size)The null hypothesis in terms of significance of the outcome is that there is no significant relationship between loan characteristics and loan performance. Sig. value for each variable is above .05 meaning that there is no reason to reject the null hypothesis.

Table 9: Regression Coefficient Outcome of Loan Characteristics on Loan Performance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	9.921	1.842		1.963	.090
1NYM	.062	.063	.843	.990	.355
Loans Disbursed	-.010	.179	-.049	-.058	.956

4.2.6 ANOVA Result Model Summary

Analysis of Variance (ANOVA) showed that correlation of coefficient R for loan size and loan tenure were negative and positive at -0.531 and 0.212 respectively. It implies that an increase in loan size and leads to reduction in loan performance while an increase in loan tenure leads to increase in loan performance. The proportion of loan performance that is explained through loan size was 28.4% and adjusted R Squared was 34.5%. The results are further illustrated in the table below.

Table 10: ANOVA Result Model Summary

	R	R Square	Adjusted R Square	Std. Error of the Estimate
Loan Size	-0.531	0.345	0.284	2.890
Loan Tenure	0.212	0.186	0.354	6.673

4.2.7Tests of Moderator

The study sought to determine the moderating effect of unemployment on loan characteristics and loan performance. The model summary table 10 is the basis of measuring change in R square. The change statistics in model 2 was applied to determine the statistical significance of the term and to determine whether unemployment moderates the effects of loan characteristics on loan performance. The illustration is provided in the table below.

Table 11: Model Summary of Effect of Unemployment

Model	R	R Squared	Adjusted R Square	Std. Error of Estimate	Change Statistics				
					R Squared Change	F Change	df1	df2	Sig. F Change
1	0.568[a]	0.6524	0.6124	10.123	0.06865	101.231	3	125	0.002
2	0.652[b]	0.7865	0.8145	8.452	0.0452	97.215	2	124	0.001

Change in R Square indicates that there is an increase in variance which is due to changes in R^2 which is the interaction factor. R^2 change is 0.0575 and it represents a percentage increase (5.7%) in variation explained by the inclusion of moderating terms (unemployment). Using p<.001 as the base line, it is evident that the increase is statistically significant. It is evident in the last column of the table above. The table shows that interaction between loan characteristics and loan performance is further explained by an additional 6% in changes in levels of employment in economy while another 7% of the interaction is explained through first order.

Table 12: Moderation Coefficients of Unemployment on Loan Performance

Model	Unstandardized Coefficients		T	Sig.	95% Confidence Interval for B	
	Beta	Std. Error			Lower Bound	Upper Bound
(Constant)	54.234	36.675	0.466	0.002	32.341	40.234
1 Loan Size	0.234	32.327	0.037	0.21	3.378	4.345
Interest Rate	31.456	9.567	1.071	0.023	21.901	26.234
Loan Tenure	23.234	7.467	0.675	0.010	10.235	11.234
Unemployment (z score)	9.342	3.234	2.443	0.020	2.234	2.345
2 (Constant)	70.134	41.340	0.685	0.040	36.92	37.347
Loan Size	10.881	26.234	0.452	0.221	0.012	0.1234
Interest Rate	21.231	6.231	2.073	0.011	8.232	10.234
Loan Tenure	1.254	0.876	1.250	1.354	1.3541	1.545
Unemployment (z score)	27.123	12.231	2.125	0.001	0.086	0.0866

Application of descriptive statistic is important form of verifying that loan size variable was given proper codes and that the loan size variable had mean of 0 and standard dev. of 2.03. Further, the correlation among the variables showed that the standardized continuous variable was not highly correlated. From the output, it is evident that interest rate was not significant because it had t value of 1.071. Consequently, the t value for unemployment is more than 2 hence it is significant. The unstandardized regression coefficient for unemployment is .021 which is an indication of existence of positive relationship between unemployment and loan characteristics. The z score being close to 1 means that there is positive relationship between moderator variable and the performance of loans. The model equation is shown below.
Y= 60.124 + (9.967x Loan Size) + (11.234x Loan Tenure) + (1.134x LSx LT)

5.0 Conclusion And Recommendations

The study determined that amount of loan disburse significantly influenced the performance of loans. The study also found out that the constant rate of interest meant that it was not possible to determine the effect of the interest rate on performance. Therefore, the study eliminated this variable from the model. The study determined that the longer the loan tenure the lower the performance of loans. The negative relationship between the variables proved this point as illustrated in the analysis section. The study determined that unemployment has positive and significant effect on loan performance. It means that when the number of unemployed people in the country increases the level of loan performance goes down. The relationship between unemployment and loan performance is negatives and significant.

5.1 Conclusions

Loan size was found to significantly affect loan performance at HELB. The study indicated that an increase in size of loan had negative and significant impact on loan performance in terms of recovery. The study determined that interest rates do not play a significant role in loan performance. The main reason behind the situation above is that the interest rate remains the same across the years for both undergraduate and graduate loanees the study determined that loan tenure had a significant effect on loan performance. The study relied upon loan maturity as the basis of discussing the element of loan tenure. The two forms of loan tenure were matured and not yet matured loans. The study determined that matured loan was not predictive of loan performance; therefore, it was dropped from the model. Not yet matured loan was predictive hence it was used in the model of study. Study determined that unemployment is a moderating factor between loan characteristic and loan performance. It is an indicator to the fact that students holding loans that should be paid have no capacity to remit the payments when they are unemployed.

5.2 Recommendation

It has been established that interest rates charged on loans are not critical in decision making with regard to loans. Over the years, policy makers have grappled with suggestions that interest on higher education loans should be scrapped. The study has shown that it is not a determinant in terms of loan performance since it is a constant factor. Further, it has been determined that unemployment is one of the factors that affect loan performance. The role of the government and the private sector is to create policies that lead to job creation in the economy. Low levels of loan performance in the country can partially be attributed to unemployment. Policies developed by the government must be geared towards creating employment Loan size was identified as an important factor that influences loan performance. It is expected that policy makers at the government agencies should make use of actuarial science to determine the most ideal loan amount that can serve the needs of the students and can be financed with ease after the student has completed studying. Loan tenure has been identified as a significant factor in determining performance of loans at HELB. Policy makers must make use of loan tenure as part of programs being created to improve loan performance at HELB.

The maximum number of years it takes to pay back loan vary from one jurisdiction to another; however, it is best to hold loan for the shortest possible time.

5.3 Suggestions for Further Research

Research on loan performance continues to grow in the Kenyan environment. Few scholars have published in the area of unconventional lender such as HELB. In future, studies are expected to focus on variables that are related to human behavior rather than market factors. For example, failure to pay loan does not only reflect on an individual's financial power. Some people have the ability to pay but fail to remit such payments. Research must have the capacity to study this form of behavior. This is an important gap that captures the element of behavioral economics and financial intermediation.

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