

**EFFECT OF RISK TOLERANCE OF BORROWER ON LOAN
REPAYMENT PERFORMANCE AMONG YOUTH ENTERPRISE
DEVELOPMENT FUND BOARD BENEFICIARIES
IN TRANS NZOIA COUNTY, KENYA**

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Abstract

The objective of the study was to determine the effect of risk tolerance of borrower on loan repayment performance among Youth Enterprise Development Fund Board beneficiaries in Trans Nzoia County, Kenya. The study used a descriptive survey research design. The target population comprised of 225 youth groups. 146 groups were randomly selected across the sub-counties to constitute the sample. Three members were selected from each group. One member was purposively selected (group leader) while the other two were randomly selected. A total of 438 respondents participated in the study. A self-designed semi-structured questionnaire was used to collect data. Descriptive statistics such as frequencies, means and percentages was used to summarize the data. Cross tabulation, Chi-Square and ANOVA was used to determine the relationships between dependent and independent variables. Key findings revealed that the comparison between the three categories of repayers and risk tolerance

scores yielded a statistically significant difference $F(2, 435) = 13.150, p < 0.05$. The expected beta ($Exp(B) = 0.228$) means that if a borrower's risk tolerance increases by a unit, the probability of a borrower being a repayer is 0.228 times likely (22.8% higher) than being a defaulter. This probability was strongly statistically and significantly predicted by the model ($p < 0.001$). The study recommends that the County Government of Trans Nzoia establishes business parks, provide essential infrastructure, ensure access to 30% procurement opportunities and create conducive business environment for the youths so as to engage in meaningful businesses to improve loan repayment performance.

Keywords: Risk tolerance, Youth Enterprise Development Fund (YEDF), loan repayment, Debt, Kenya

INTRODUCTION

Youth unemployment around the globe has become a major challenge in the 21st century. Evidence shows that when jobs are scarce, young persons are more likely to be unemployed. There are more than one billion young people aged 15-24 in the world today, of which 85 percent live in developing economies and almost 100 million young people will be entering the global work force every year for the next ten years (ILO, 2010). Compared to adults, the youth of today are almost three times as likely to be unemployed and globally one in five working youths continues to live in extreme poverty on 1 US dollar a day (ILO, 2008).

In Africa, the Sub Sahara is one of the regions highly affected by youth unemployment. According to international labour office (ILO, 2005), projection of youth unemployment is estimated to be more than 21 percent, and that Sub-Saharan Africa will witness substantial growth in additional labour force of 28 million to 30 million between 2003 and 2015. According to the Kenyan 2009 census results, the national population stands at 38.8 million, the youth defined as young people of ages between 15-35 years are about 15 million which is 40% of the population (KNBS, 2010). Kenya's economic growth provides for only 25% of employment leaving majority 75% unemployment.

Over time, small and micro enterprise sector has emerged as the main source of employment. For instance, the sector employed close to 8 million people in 2005 compared to 1.8 million in informal wage employment (Mngolia, 2009). Promotion of more effective youth entrepreneurship policies and strategies is therefore getting increased attention among governments and international organizations. As a result, there is a growing recognition that responsible youth entrepreneurship must be at the heart of tackling global, environmental, economic and employment challenges (ILO, 2010). However, several studies (Schoof, 2006,

Weeratunge, 2007 & Green, 2005) cite various constraints and barriers to youth entrepreneurship. They cite lack of enterprise culture in many countries, unfavourable legal, policy and regulatory frameworks for youth entrepreneurship, lack of entrepreneurship education across formal and informal educational systems, lack of access to affordable financing in the form of start-up and support schemes for youth already in business or for those interested in pursuing an entrepreneurial career (ILO, 2010). Widespread poverty remains a critical development challenge in Kenya (Odhiambo et al, 2013).

The government and the formal banking sector in Kenya over the years have regarded the informal sector as risky and not commercially viable. Most financial institutions have avoided lending to the youth due to their inability to comply with high costs of funds, difficulties in assessing and managing their risk profile and lack of the required collateral (Mongolia, 2009). Therefore in spite of the importance of this sector, experience shows that provision and delivery of credit and other financial services to the sector by formal financial institutions, such as commercial banks has been below expectation (Were, 2013). The potential of using other forms of credit and other financial services for small business growth among the youths in Kenya thus appear quite significant (Magwanga, Muloti, Shitawa & Pesa, 2010). New, innovative, and pro-poor modes of financing youths operating and intending to start enterprises have been developed in Kenya.

In Kenya, the youth enterprise development fund Board (YEDFB) employs the symmetrical loan scheme in advancing loans to its beneficiaries. Youth Enterprise Development Fund Board provides loans to youths enterprises thorough two channels namely district committees and financial intermediaries. Examining repayment performance is important because if borrowers do not repay, then there may not be sufficient funds to ensure that the liquidity position of the MFI is maintained. When there is a loss in the MFI liquidity due to high levels of non-repayment, the cyclical flow of funds between the MFI and the borrowers will be interrupted (Nawai et al., 2013). Loan repayment performance refers to the total loans paid on time as stated in the loan agreement contract. This problem is an unsolved issue faced by the majority of financial institutions including MFIs and government led initiatives like YEDFB. When a loan is not repaid, it may be a result of the borrowers' unwillingness and/or inability to repay (Nawai et al., 2013). This study aimed at establishing the effect of risk tolerance level on loan performance of Youth Enterprise Development Fund Board beneficiaries in Trans-Nzoia County

Statement of the Problem

Although YEDFB was created in the year 2006 as a revolving fund meant to help Kenyan youths start or expand business, repayment of loans has proved more difficult among many

youth owned enterprises in Kenya (Mwaura, 2010). Studies carried out in Kenya among them; Ameyia (2011) and Mburu (2010) show that government micro credit programmes perform poorly in terms of low payment and high default rates. High default rate has affected the sustainability of the micro-credit initiatives. Studies done on government funded initiatives in Kenya show a lot has been disbursed, but very little recovered (Wakuloba, 2006, Opiyo, 2013). National loan recovery currently stands below 25% for the youths for the last five years the programme has been in place. In Trans Nzoia County, loans taken from YEDF board suffer from a considerable amount of default rate. This stands at 36.01% (the amount of loans not collected on current and past due loans for the reference period). Majority of the youths are yet to see the benefits of the programme due to poor loan repayment. In fact this poor recovery by previous beneficiaries threatens to block other potential youths in need of the funds to access it. Hence, the study focused on identifying the effect of risk tolerance level on loan performance of Youth Enterprise Development Fund Board beneficiaries in Trans-Nzoia County.

Research Objective

To determine the effect of risk tolerance of borrower on loan repayment performance among Youth Enterprise Development Fund Board beneficiaries in Trans Nzoia County

Research Question

How does risk tolerance of borrower affect loan repayment performance among Youth Enterprise Development Fund Board beneficiaries in Trans Nzoia County?

Research Hypothesis

Ho₁: Risk tolerance of borrower has no statistically significant difference in effect on loan repayment performance among Youth Enterprise Development Fund Board beneficiaries in Trans Nzoia County.

Justification of the Study

The study findings will be of significance to various stakeholders. The study findings will enable existing micro credit groups comprising of youths to understand the influence of finance determinants on loan repayment. As output of the analysis, identifying finance determinants that contribute to successful loan repayment will help policy makers to formulate successful credit policies and programs that will again help in allocating financial resources effectively and efficiently among the youths.

The study will have positive impact in promoting government investment and making it effective by creating smooth relationship between the borrower and the lender through its recommendations. Lesson will be drawn to loan defaulters in the YEDF board. Other researchers will make use of the research outcome because it will help them to identify the factors behind successful loan repayment and also will help them to extend research on similar issues. The study will also contribute to the body of knowledge by reducing the gap in the available literature on financial determinants and loan repayment performance.

Scope of the Study

The study was done in Trans-Nzoia County. Trans-Nzoia County is majorly an agri-business region. Many youths are un-employed because industrialization that accounts for a larger percentage of labour absorption is lacking. As a result, micro small and medium enterprise establishments are encouraged as a strategy to expand employment opportunities. Group lending through YEDFB is a government strategy to avail funds to enterprising youths to establish startup or expand existing business while remaining accountable in loan repayment.

All youth groups who are beneficiaries of the YEDFB scheme were included in the study. This is because the study sought to establish why some groups succeed in loan repayment while others struggle or fail altogether. Groups participating in the study were randomly selected across the five sub counties namely Kwanza, Endebes, Cherang'any, Saboti and Kiminini. To avoid auto correlation of responses within selected groups, one official and two members were randomly selected to provide information about the group. It is assumed that officials know their members very well and therefore were able to disclose full and accurate information about loan repayment. The study only focused on the finance related determinants as the explanatory variables. These include loan repayment size, risk tolerance, loan portfolio diversification, finance literacy, debt management and cost of borrowed funds.

Limitations of the Study

The researcher encountered some limitations during the study. The research constituted a cross sectional snapshot based on 146 youth groups. Repayment performance was based on current repayment behavior. The study could not therefore trace the progress of the group repayment especially above second cycle loans to show potential lags between financial determinants that affect YEDFB loan repayment performance. A longitudinal study would be necessary to overcome such limitations. However the nature of respondents portrays high level of financial secrecy that does not permit a quantitative study. Therefore, the study suffers from a common limitation in quantitative research. The use of subjective measures for the finance variables was

considered. Data triangulation ensures validity of the subjectively collected. Reviewed literature widely reported that this approach increases the response rate which this study achieved.

The study assumed that all other factors were held constant. This was a limitation as it may be difficult to avoid association effects of factors assumed. Further research should introduce moderating factors such borrower demographics that were statistically and significantly correlated with YEDFB loan repayment performance.

LITERATURE REVIEW

Theoretical Framework: Modern Repayment Theory

Markowitz (1952) developed modern repayment theory (MRT). This basic repayment model suggests that the variance of the rate of return is a significant measure of repayment risk under a certain set of assumptions related to investor behaviour. Markowitz suggested that to choose profitable investments, it is not enough to look at the relationship between risk and return. Investors should not only focus on the significance of diversification to reduce the total repayment risk, but also learn how they can effectively diversify.

The basic assumption of the modern repayment theory is that investors are willing to maximize their return on investment for a given level of risk. However investors are fundamentally risk averse which means that if they have to choose between two assets with equal rates of returns they are more likely to choose the asset with the lower level of risk. Markowitz further demonstrated that because investors are risk averse they need to combine assets into efficiently diversified repayments. MRT assumes that repayment risk can be reduced if investors focus on the variability of expected returns and to achieve that, investors should pick assets that tend to have dissimilar price movement.

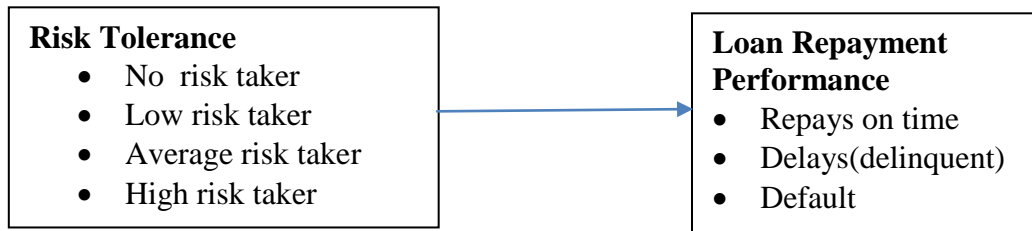
Modern repayment theory suggests that traditional approach to repayment analysis, selection and management may well yield less than optimum results-that a more scientific approach is needed based on estimates of risk and return of the repayment and the attitude of the investor toward a risk-return trade-off stemming from the analysis of the individual security (Fischer & Jordan, 1995). Investors make two types of decisions in constructing their repayment: the asset allocation decisions are the choice among the broad asset classes; while security selection is the choice of which particular securities to hold within each asset class (Bodie et al., 2008).

Conceptual Framework

The conceptual framework gives the relationship between independent and dependent variables of the study. The research adopted the conceptual framework illustrated in figure 1. In this study

focus was on the relative importance risk tolerance level of borrower in explaining the Loan repayment performance of the YEDFB loans in Trans-Nzoia County.

Figure 1: The Relationship between Finance Determinants and Loan Repayment Status



Research Gap

Olweny, Namusonge and Onyango (2012) in their study assessed the influence of socio-economic background on individual investor risk tolerance at Nairobi Securities Exchange. This study sought to establish the effect of risk tolerance level of the borrower on loan repayment performance. In their study, Olweny.et al. (2012) established a high correlation between finance literacy and risk tolerance. The current study independently cross tabulated risk tolerance of borrower with loan repayment performance.

RESEARCH METHODOLOGY

Research Design

The researcher employed a descriptive and quantitative research design in order to generate conclusive data on effect of finance determinants on loan repayment performance of YEDF board beneficiaries in Trans Nzioa. The primary advantage of the design is that the researcher is able to gather a great deal of information in a relatively short period of time. Survey methods have become sophisticated that even using a very small sample is sufficient to infer with great accuracy how a larger group would respond (Feldman, 1996). Descriptive survey is important when detailed description of existing situation intended for the justification `of current practices is required. Yin (1984) argues for the use of surveys in educational fact-finding because they provide a great deal of information which is accurate.

Target Population

The target population was comprised of 225 youth groups in Trans-Nzoia County according to YEDF Status Report (2014). These groups were distributed across five sub counties: Kwanza, Endebes, Cherang'any, Saboti and Kiminini as indicated in Table 1.

Table 1: Number of YEDF Group Beneficiaries per Sub-County

Sub County	YEDF Group beneficiaries
Kwanza	40
Endebes	50
Cherang'any	48
Saboti	35
Kiminini	52
Total	225

Source: YEDF Status Report (2015)

Sample and Sampling Technique

The YEDF group beneficiaries were stratified according to sub-counties they operate from. A total of 225 groups were distributed in the county as shown in Table 1. One hundred and forty four groups randomly selected across the sub-counties constituted the sample using Yamene's formula for finite population (Reid & Bore 1991). Since most group membership ranges from 8-12, three members were selected from each group. One member was purposively selected (group leader) while the other two respondents were randomly selected. Few members were picked to reduce co-linearity in responses in a group. One key informant was selected purposively from each Sub-County. A total of 438 respondents participated in the study as shown in Table 2.

Table 2: Sampled Number of Respondents

Sub County	YEDF Group Beneficiaries	Sampled Groups	Sampled Respondents
Kwanza	40	25	75
Endebes	50	33	99
Cherang'any	48	30	90
Saboti	35	22	66
Kiminini	52	36	108
Total	225	146	438

Source: YEDF Status Report (2015)

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

Where N=225, e= 0.05 (level of significance at 95%). Substituting gives 146 groups

Data Collection Methods

Primary Data Collection Methods

Primary data are information collected by a researcher specifically for a research assignment. Primary data are original in nature and directly related to the issue or problem and current data.

Primary data are the data which the researcher collects through various methods like interviews, surveys and questionnaires.

A self-designed semi-structured questionnaire was used to collect data. A questionnaire refers to set of questions designed in a form format and is employed by researchers in eliciting information for the purpose of data analysis. Questionnaires are more efficient and require less expensive and permit collection of data from a much a larger sample. Questionnaires are also of particular importance in collecting information about a population in the fields of education and social sciences. They can also be used to collect information that is not directly observable since they among other things enquire about feelings, motivation, attitude, accomplishment, as well as an individual's experiences. An interview guide was used to solicit in depth information from key informants who were Youth Enterprise Development Fund officers monitoring loan.

Secondary Data Collection Methods

Secondary data are the data collected by a party not related to the research study but collected these data for some other purpose and at different time in the past. If the researcher uses these data then these become secondary data for the current users. These may be available in written, typed or in electronic forms. A variety of secondary information sources were available to the researcher gathering data on loan repayment performance. Secondary data was also used to gain initial insight into the research problem and compiling related data globally, regionally and locally. Document analysis was used to gather information from journals, books, reports and websites.

Pilot Study

A pilot study was carried out using 20 youth enterprise development fund board beneficiaries operating business in Kitale town. The data collected was used to test the questionnaire's reliability. Reliability analysis was done to assess the reliability, internal consistency and validity of the survey instruments used. Reliability analysis was explained by Cronbach's reliability coefficient. The study made use of Likert scale hence suitability for reliability analysis. Likert scale enabled easier analysis as it minimised doubt on the type of response given. Cronbach's alpha coefficient was pegged on Mugenda, and Mugenda rule of thumb (0.6). Cronbach's alpha is a measure of reliability.

Table 3: Pilot Test Results

No.	Variable description	Cronbach alpha value-α
1	Borrower risk tolerance	0.750

Data Collection Procedure

The researcher secured an introductory letter from Jomo Kenyatta University of Agriculture and Technology to seek permission from YEDFB office and group leaders for data collection. Data was collected using questionnaires from sampled groups and members. The pre-tested questionnaire was administered by the researcher with the help of three trained research assistants. These research assistants were trained on the handling of the research tools and the topic under study before being allowed to collect data. The research assistants were closely supervised by the researcher during data collection. The questionnaire took approximately twenty minutes to administer. Data collection process took about two months. An appointment was booked with respective YEDFB field officers of sampled groups by researcher and interviewed for not more than thirty minutes.

Data Processing and Analysis

Data entry was done in Microsoft excel and exported to STATA V.10 for analysis. Frequencies mean and standard deviation were used to summarize the data. Chi-square was used to check for significant relationship between categorical independent variables and the outcome variable (Loan repayment performance). ANOVA was used for continuous independent variables. The study employed a multinomial logistic regression model to analyze the primary data which was collected from the respondents. This model was appropriate for a dependent variable with three or more levels. Loan repayment performance is dependent variable, whereas risk tolerance is independent variable. Based on the loan repayment performance of the borrowers, the study classified the dependent variable into three groups comprising of those who repay on time, delinquent and defaulters. Repayer was the borrower who completely did not fail to repay loan, delinquent was the borrower who skipped or delayed to repay while defaulter was the borrower who completely failed to repay loan. This made loan performance to have multiple results.

The model for loan repayment performance was constructed as follows:

$$Y = \beta_0 + \beta_1 X_1 + e_i \dots\dots\dots (1)$$

Where,

Y = loan repayment performance of borrowers;

β_0 = constant;

β_1 = coefficient of explanatory variable;

X_1 = risk tolerance;

e_i = error term

ANALYSIS AND FINDINGS

Response Rate

A total of 438 survey questionnaires were administered to the respondents. All the questionnaires were collected. This was 100 percent response rate attributable to data being collected during the weekly group meetings where respondents filled and returned the questionnaires immediately. In addition all the YEDFB loan officers were available for interview in all the study areas. This excellent response rate was also attributable to appropriate introduction done to groups, training and good service rendered by the research assistants. It also reflects the high expectation of the respondents that their challenges and problems could be addressed through better financing of their groups.

Respondents Personal Characteristics

This study established the demographic characteristics of YEDFB beneficiaries. These characteristics include age, gender, educational level, marital status and experience in business. The business type, number of members in the group, respondent position in the group, loan application maturity and loan repayment duration were also established and disaggregated by repayment performance.

Age of Respondents

Table 4 shows the distribution of respondent's age (mean and range) across the five study areas. Descriptive statistics revealed that the average age of the respondents was approximately 26 (25.7397) years. The youngest beneficiary was 18 years while the oldest was 35 years with standard deviation of about 4 years around the mean. Youths in this age group constitute the very energetic youth and are likely to work effectively to increase their incomes. The results also indicate that majority of the youths are increasingly considering entrepreneurship as a preferred choice to employment and not as a last resort.

Table 4: Age distribution of YEDFB beneficiaries

Description	Good payment		Delinquent		Default	F-value	p-value	Total	
	Mean	SD	Mean	SD				Mean	SD
Age	26.1(4.2)		25.4(3.6)		25.0(2.7)	2.614	0.074	25.7397	3.898

Gender of Respondents

Majority, 226(51.6%) of the respondents were male and the rest 212(48.4%) were female. This implies that most beneficiaries of YEDFB loans male. The default level was 9.3% and 17.9% among male and female respectively. This implies that default rate is higher among female borrowers. This could be attributed to the role played by females in taking care of households. Females are more likely to spend part of their loans on household consumption. The difference between the two groups was positive and statistically significant ($p=0.015$).

Table 5: Gender Distribution of YEDFB Beneficiaries

Gender	Good payment		Delinquent		Default		Chi-square value	p-value	Frequency	
	n	%	n	%	n	%			N	%
Male	128	6.6	77	34.1	21	9.3	8.454	0.015	226	51.6
Female	119	6.1	55	25.9	38	17.9			212	48.4

Educational Level of Respondents

Table 6 shows the distribution of educational level of YEDFB beneficiaries. A very small proportion 8(1.8%) had no schooling while more than one third 152(34.7%) had attained tertiary and university levels of education. This indicates that many youths graduating from college have embraced entrepreneurial activities to generate income and create sustainable livelihoods. These results indicate that the government initiative of establishing the fund to create employment for the ever increasing number of graduates is achievable. Majority of the respondents across the study areas had attained secondary level of education.

Repayment performance was 100% among those borrowers with no schooling followed by those with primary education 53 (84.1%). The findings indicate that default rate increased with increase in education level as indicated in table 7 below. The differences among the three groups of repayers was positively and statistically significant ($p<0.001$).

Table 7: Distribution of Educational Level of YEDFB Beneficiaries

Education	Good payment		Delinquent		Default		Chi-square value	p-value	Frequency	
	n	%	n	%	n	%			N	%
No schooling	8	100	0	0	0	0	39.480	0.000	8	1.8
Primary	53	84.1	7	11.1	3	4.8			63	14.4
Secondary	105	48.8	84	39.1	26	12.1			215	49.1
Tertiary	53	54.6	25	25.8	19	19.6			97	22.1
University	28	50.9	16	29.1	11	20.0			55	12.6

Marital Status of YEDFB beneficiaries

Table 8 shows the distribution of marital status of YEDFB beneficiaries. About one third 139 (31.7%) of the respondents were single. Over half 76(54.7%) of the single respondents were good repayers while the rest 43(30.9%) and 20(14.4%) were delinquent and defaulters respectively. About half 218(49.8%) of the respondents were married. Over half 116(53.2%) of the married respondents were good repayers while the rest 71(32.6%) and 31(14.2%) were delinquent and defaulters respectively. Among those separated, majority 39(79.6%) were good repayers of loan while 10(20.4%) were delinquents as shown in table 8. The difference among the groups was positive and statistically significant ($p=0.015$). Default rate was higher among those divorced or widowed compared to those married. These results show that most of the YEDFB beneficiaries were married and are likely to spend much of their income on their families. Since married beneficiaries are likely to have a larger family size, they will have higher expenses than single ones. Therefore single beneficiaries are likely to have better repayment ability than married ones. Beneficiaries who were separated were better repayers compared to widowed or divorced. This could be attributed to spouses complementing their household expenditure and income reducing loan and profits diversion to unintended purposes.

Table 8: Distribution of Marital Status of YEDFB beneficiaries

Marital status	Good repayment		Delinquent		Default		Chi-square value	p-value	Freq. N	Percent
	n	%	n	%	n	%				
Single	76	54.7	43	30.9	20	14.4	18.928	0.015	139	31.7
Married	116	53.2	71	32.6	31	14.2			218	49.8
Separated	39	79.6	10	20.4	-	-			49	11.2
Divorced	8	50.0	5	31.2	3	18.8			16	3.7
Widowed	8	50.0	3	18.8	5	31.2			16	3.7

Experience of YEDFB Beneficiaries

Table 9 shows the mean experience in current business by YEDFB beneficiaries. The mean experience in business of the beneficiaries was 3.54(SD. 2.456). The results indicate that the YEDFB beneficiaries who defaulted had lower mean experience compared to those who were delinquent and repaid on time. The low level of business experience could negatively influence loan repayment abilities of the YEDFB beneficiaries in the study area.

Table 9: The Mean Experience in Current Business by YEDFB Beneficiaries

Description	Good payment		Delinquent		Default		F-value	p-value	Total	
	Mean	SD	Mean	SD	Mean	SD			Mean	SD
Experience	3.4	2.5	3.9	2.3	3.2	2.4	2.420	0.090	3.54	2.456

Type of Business

Table 10 shows the proportion of respondents operating under various sectors of the economy. The respondents were requested to indicate the type of business they were engaged in. Majority of the respondents indicated that they were engaged in trading 13(30.6%) and service 152(34.7%). Manufacturing sector had only 57(13.0%) of the respondents while Agribusiness had 95(21.7%). These sectors contribute a larger proportion in terms of employment creation despite its low uptake by YEDFB beneficiaries. Manufacturing and Agribusiness(agro-processing) is a grey area which should be exploited by youths given that Trans Nzoia County is largely agricultural and raw materials are cheaply available.

Those respondents who engaged in trading indicated good repayment performance with 87(64.9%) being good repayers while 12(9.0%) were defaulters. Only 20(35.1%) operating in the manufacturing sector were good repayers while 15(26.3%) were defaulters. Agribusiness sector was second in repayment performance where 51(53.7%) of the respondents were good repayers while 9(9.5%) were defaulters. The differences among the groups was positive and statistically significant ($p=0.002$)

Table 10: Proportion of Respondents Operating in Various Business Sectors

Type of business	Good payment		Delinquent		Default		Chi-square value	p-value	Frequency	Percent
	n	%	n	%	n	%				
Manufacturing	20	35.1	22	38.6	15	26.3	21.240	0.002	57	13.0
Trading	87	64.9	35	26.1	12	9.0			134	30.6
Service	89	58.6	40	26.3	23	15.1			152	34.7
Agribusiness	51	53.7	35	36.8	9	9.5			95	21.7

Position in Group

The study investigated the relationship between the respondents position in the group. The respondents were distributed across the positions in the groups. This implies that the information provided by the respondents could represent the views of the population of YEDFB borrowers in Trans Nzoia County. Majority of the respondents were officials of youth groups who are well versed with borrowing behavior of the groups. About half 36(51.4%) of

chairpersons were good repayers as shown in table 11. Majority 43(60.6%) of secretaries and 51 (69.9%) of treasurers were good repayers. Vice chairpersons performed poorly as 18(31.6%) paid loans and 18(31.6%) defaulted. The position of treasurer had best repayment performance where only 3(4.1%) defaulted.

The findings imply that most of the group treasurers were had financial discipline and integrity to handle group money. The performance of vice chairpersons could affect repayment performance among members because leaders are expected to set good examples. The findings reveal that delinquency was lowest 15(19%) among members. Some of the YEDFB loan beneficiaries use their leadership positions to either delay repayment or default. The difference among the groups was positively statistically significant ($p < 0.001$).

Table 11: Position of YEDFB Loan Beneficiary in the Group

Position in the group	Good payment		Delinquent		Default		Chi-square value	p-value	Frequency	
	n	%	n	%	n	%			N	%
Chairperson	36	51.4	22	31.4	12	17.1	45.018	0.000	70	16
Vice-chairperson	18	31.6	21	36.8	18	31.6			57	13
Secretary	43	60.6	19	26.8	9	2.7			71	16.2
Treasurer	51	69.9	19	26.0	3	4.1			73	16.7
Vice-secretary	49	55.7	36	40.9	3	3.4			88	20.1
Member	50	63.3	15	19.0	14	17.7			79	18

Location of the YEDFB loan group

YEDFB beneficiaries are distributed across five constituencies in Trans Nzoia County. Each constituency has an officer in charge of administration of the fund. Kiminini had the lowest proportion 45 (41.7%) of good repayers while Endebes had the highest proportion 65(65.7%) as shown in table 12. Endebes also had the lowest 9(9.1%) proportion of defaulters compared to Saboti that had 14(21.2%) as defaulters. Kiminini had the highest proportion 52(48.1%) of delinquents. The difference among the groups was positive and statistically significant ($p < 0.001$). This difference could be attributed to the differences in social-economic status across the regions.

Table 12: Location of the YEDFB Loan Group and Repayment Performance

Location of group	Good payment		Delinquent		Default		Chi-square value	p-value	Frequency	
	n	%	n	%	n	%			N	%
Endebes	65	65.7	25	25.3	9	9.1	29.089	0.000	99	22.6
Cherang'any	52	57.8	26	28.9	12	13.3			90	20.5
Kiminini	45	41.7	52	48.1	11	10.2			108	24.7
Saboti	40	60.0	12	18.2	14	21.2			66	15.1
Kwanza	45	60.0	17	22.7	13	17.3			75	17.1

Number of Members in a Group

The size of the YEDFB group membership varied from 5 to 35. Group size may influence the borrowers' loan repayment behavior either positively or negatively. Group members guarantee each other to access YEDFB loans. Loans are given to the group and then either invests in a group business or individual members get a portion. The mean number of members in a group was 17. There was no significant difference in mean number of members across the three categories of YEDFB loan repayment performance ($p=0.134$).

Table 13: Number of Members in the Group

Description	Good payment		Delinquent		Default		F-value	p-value	Total	
	Mean	SD	Mean	SD	Mean	SD			Mean	SD
Number of members in group	17.7	6.0	17.2	5.2	16.1	4.1	2.020	0.134	17.34	5.549

Loan Repayment Status

Over half 247(56.4%) of the respondents were good repayers of YEDFB loans while 132(30.1%) were delinquent. 59(13.5%) of the respondents defaulted. Full repayment of the loan enables more youths to access and benefit from the fund. This implies that YEDFB loan has not achieved full repayment. This study sought to establish determinants (financial) that could be attributed to this level of repayment performance.

Table 14: Loan Repayment Status

Status	Frequency	Percent
Repays	247	56.4
Delinquency	132	30.1
Defaulted	59	13.5
Total	348	100

Causes for YEDFB Loan Delinquency and Default

The respondents who either were delinquent or defaulted were requested to give reason for their loan repayment behavior. This was a multiple response. Those respondents who cited shortage of funds all, 26(100%) were delinquent while 14(70%) of those who cited not making profits were delinquent and 6(30%) defaulted. Among the respondents who cited not selling anything as a reason of poor loan repayment performance, 25(56.8%) were delinquents while 9(30%) were defaulters. Among the delinquents, 21(70%) delayed to pay because they spent money on other things while 46(64.8%) said they did not give it priority. The findings show that poor performance of youth enterprises was the reason for poor loan repayment. However, some the YEDFB loan beneficiaries were reluctant to repay the loan despite the business doing well.

Table 15: Causes for YEDFB Loan Delinquency and Default

Cause	Delinquent		Default		Chi-square value	p-value	Frequency	
	n	%	n	%			N	%
Shortage of funds	26	100	-	-	15.375	0.004	26	13.6
Did not make profits	14	70	6	30			20	10.5
Did not sell anything	25	56.8	19	43.2			44	23
Spent money on other things	21	70	9	30			30	15.7
Did not give it priority	46	(64.8)	25	35.2			71	37.2

Borrower's Risk Tolerance

Potential Risks Faced By Youth Enterprises

The respondents were asked to rate the most likely risks they encountered in their business enterprises. Over half 232(53.0%) reported market/ investment risk as most common. 101(23.0%) of the respondents rated structural risk as the second most common risk they encountered. This implies that most groups face group dynamic challenges that weigh heavily on successful YEDFB loan repayment. 67(15.3%) of the respondents reported liquidity and funding management risk while 38(8.7%) reported capital management as a risk. Youth groups require information and skills on how to mitigate these risks that could affect enterprise development. These uncertainties/risks may affect loan repayment behavior. This implies that mitigation of risk may enhance loan repayment performance.

Table 16: Potential Risks faced by youth enterprises

Risk Type	Frequency (n)	Percent (%)	Rank
Market/investment risk	232	53.0	1
Structural risk	101	23.0	2
Liquidity and funding management	67	15.3	3
Capital management	38	8.7	4
TOTAL	438	100	

Respondents View on Risk Appetite and Tolerance

The study sought to establish the risk appetite and tolerance of the respondents towards engagement in entrepreneurial activities. Majority 282(64.4%) of the respondents either strongly agreed or agreed that they were not willing to accept risks in most circumstances. Less than one third, 124(28.3%) of the respondents either disagreed or strongly disagreed that they were not willing to accept risks in most circumstances. This implies that majority of the YEDFB loan beneficiaries are risk averse ($M=2.57$, $SD=1.29$). However, majority 246(66.1%) of the respondents were willing to accept some risks in certain circumstances ($M=2.58$, $SD=1.28$). about half 245(53.9%) of the respondents were willing to accept opportunities having high inherent risk ($M=2.75$, $SD=1.33$) while 259(59.1%) preferred low risk and low returns in their investments.

Table 17: Respondents view on Risk appetite and Tolerance

Statement	Strongly agree		Agree		Undecided		Disagree		Strongly disagree		Mean	SD
	Freq (n)	Percent (%)	Freq (n)	Percent (%)	Freq (n)	Percent (%)	Freq (n)	Percent (%)	Freq (n)	Percent (%)		
Not willing to accept risks in most circumstances	81	18.5	201	45.9	32	7.3	73	16.7	51	11.6	2.57	1.29
Willing to accept some risks in certain circumstances	107	34.4	139	31.7	51	11.6	112	26.6	29	6.6	2.58	1.28
Willing to accept risks	111	25.3	146	33.3	18	4.1	82	18.7	81	18.5	2.72	1.48
Willing to accept opportunities having high inherent risk	78	17.8	167	38.1	36	8.2	102	23.3	55	12.6	2.75	1.33

I prefer low risk and low returns in my investment	97	22.1	162	37.0	38	8.7	76	17.4	65	14.8	2.66	1.38
I prefer medium risk and medium returns in my investment	82	18.7	129	29.5	29	6.6	137	31.3	59	13.5	2.91	1.38
I prefer high risk and high returns in my investment	73	16.7	162	37.0	33	7.5	73	16.7	95	21.7	2.90	1.44
I prefer no risk and some returns in my investment	91	20.8	151	34.5	32	7.3	82	18.7	80	18.3	2.79	1.44

Hypothesis Testing

This section will test the null hypotheses of the study. The study was guided by six hypotheses. These hypotheses were formulated from six research questions. One way ANOVA was used to determine whether there existed any significant difference in effect of financial determinants on the three possible YEFB repayment performance outcomes: repay on time, delinquent and default.

A one-way analysis of variance (ANOVA) was used to analyze YEDFB loan repayment performance as influenced by financial determinant scores. YEDFB loan beneficiaries were divided into three groups according to their repayment performance (repays on time always, delays (delinquent), and defaulters).

***H₀₁:** Risk tolerance of borrower has no statistically significant difference in effect on loan repayment performance among Youth Enterprise Development Fund Board beneficiaries in Trans Nzoia County*

The result of the comparison between the three categories of repayers yielded a statistically significant difference at the $p < 0.05$ level as regards risk tolerance scores $F(2, 435)=13.150, p<0.05$. This implies that the level of risk tolerance of YEDFB beneficiaries may be a significant predictor of loan repayment performance outcome. Therefore, the null hypothesis is rejected and the alternate hypothesis accepted. ANOVA tested the null and alternate hypotheses:

H_0 : The means of all the groups are equal

$$\mu_1 = \mu_2 = \mu_3$$

H_a : Not all the means are equal

From the findings of the study, the null hypothesis was rejected and the alternate hypothesis accepted.

Table 18: Analysis of Variance (ANOVA) Results

Financial determinants	Differences	Sum of Squares	Df	Mean Square	F	Sig.
Risk Tolerance	Between Groups	8.373	2	4.187	13.150	.000
	Within Groups	138.494	435	.318		
	Total	146.867	437			

Post Hoc Analysis

There was no statistically significant difference in mean scores between repayers on time (M=2.7915) and delinquents (2.788), delinquents (M=2.7682) and defaulters (M=2.8068) on time pertaining their risk tolerance and cost of funds respectively at $p < 0.05$.

Table 19: Adhoc Multiple Comparisons

Dependent Variable	Repayment Group(I)	Repayment Group(J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Risk Tolerance	Pay on time	Delinquency	.00267	.06084	.999	-.1404	.1457
		Defaulted	.40590	.08176	.000	.2136	.5982
	Delinquency	Pay on time	-.00267	.06084	.999	-.1457	.1404
		Defaulted	.40323	.08836	.000	.1954	.6110
	Defaulted	Pay on time	-.40590	.08176	.000	-.5982	-.2136
		Delinquency	-.40323	.08836	.000	-.6110	-.1954

Source: Field data 2016 *. The mean difference is significant at the 0.05 level.

Table 20: The difference in Mean Score of Financial Determinants

Financial determinant	Repayment Performance	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Risk Tolerance	Pay on time	247	2.7915	.50144	.03191	2.7287	2.8543	1.75	4.12
	Delinquency	132	2.7888	.65929	.05738	2.6753	2.9023	1.75	4.62
	Defaulted	59	2.3856	.58275	.07587	2.2337	2.5375	1.75	4.25
	Total	438	2.7360	.57973	.02770	2.6816	2.7905	1.75	4.62

The Model Test of Relationship between Significant Financial Determinants and YEDFB Loan Repayment Performance

For a Multinomial Linear Regression analysis there is need to describe the overall test of relationship, in this case a relationship between the dependent and independent variables. The presence of a relationship between the dependent and combination of independent variables is

based on the statistical significance of the final model chi-square shown in the table below; termed as model fitting information. In this analysis, the distribution reveals that the probability of the model chi-square ($F=111.194$) was $p<0.001$, less than the level of significance of $0.05(p<0.05)$ as shown in the table below. This means that the existence of a relationship between the independent variables and the dependent variable was supported. Therefore, the full model statistically significantly predicts the dependent variable better than the intercept-only model alone as shown in table 21.

Table 21: Model Fitting Information

Model	Model Fitting Criteria		Likelihood Ratio Tests	
	-2Log Likelihood	Chi-square	df	Sig.
Intercept only	249.149			
Final	220.978	28.172	2	0.000

Strength of Model Relationship between Borrower Risk Tolerance and YEDFB Loan Repayment Performance

Cox & Snell R Square and the Nagelkerke R square value provide an indication of the amount of variation in the dependent variable. These are described as pseudo R square. The distribution in table 22 below reveals that the values are 0.062 and 0.073 respectively; suggesting that between 6.2% percent and 7.3% percent of the variability in YEDFB loan repayment performance is explained by risk tolerance as used in the model.

Table 22: Pseudo R-Square

Cox and Snell	0.062
Nagelkerke	0.073

DISCUSSION OF FINDINGS

The Beta value for risk tolerance in the model of delinquency versus repay was -0.008 . This implies that an increase by one unit in risk tolerance by a YEDFB beneficiary, the relative risk of being a delinquent than a repayer decreases by 0.008 units while holding other variables in the model constant. Therefore, if the borrowers risk tolerance increases, the probability of being a repayer is greater than probability of being a delinquent. However this probability was not statistically significant as predicted by the model ($p=0.150$). A Borrower with high risk tolerance is 0.992 times likely (99.2% higher) to be a repayer than being a delinquent ($EXP(B) = 0.992$)

The defaulter group was compared to the repays on time as a reference group. The beta sign for risk tolerance was negative ($B = -1.480$). This result implies that an increase in borrower

risk tolerance by a unit, the relative risk of being a defaulter decreases by 1.480 units. The expected beta ($\text{Exp}(B) = 0.228$) means that if a borrowers risk tolerance increases by a unit , the probability of a borrower being a repayer is 0.228 times likely(22.8% higher) than being a defaulter. This probability was strongly statistically and significantly predicted by the model ($p < 0.001$) .This implies that borrowers with high risk tolerance are likely to be good repayers than being defaulters. Therefore risk tolerance significantly predicts repayment performance. Risk tolerance level of a borrower may predict repayment behavior. Borrowers with high risk tolerance are likely to be good repayers of loan. Majority of the YEDFB beneficiaries are not risk takers. This reduces the ability of YEDFB beneficiaries to repay their loans. Shikuku (2014) studied the Effect of Behavioural Factors on Individual Investor Choices at the Nairobi Securities Exchange. The researcher portends that investors are fundamentally risk averse which means that if they have to choose between two assets with equal rates of returns they are more likely to choose the asset with the lower level of risk, and thus they need to combine assets into efficiently diversified repayments. Risk can be reduced if investors focus on the variability of expected returns and to achieve that, investors should pick assets that tend to have dissimilar price movement.

Olweny, Namusonge and Onyango (2012), carried out a study to assess the influence of socio-cultural background on individual investor risk tolerance at Nairobi Securities Exchange. The study finding established that financial knowledge was a major positive determinant of risk tolerance. This implies that YEDFB beneficiaries require substantial financial knowledge to improve their risk tolerance levels and hence repayment performance. Godquin (2004) cited in Ojiako and Ogbukwa (2012) emphasized that the provision of non-financial services such as training, basic literacy and health services has a positive impact on repayment performance whereas Roslan and Karim (2009) succinctly argued that borrowers without any training in relation to their business have a higher probability to default.

Table 23: Multinomial Logistic Regression Model Parameter Estimates

Repays on time		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
								Lower Bound	Upper Bound
Delinquency	Intercept	-.604	.534	1.280	1	.258			
	Risk Tolerance	-.008	.187	.002	1	.966	.992	.687	1.432
Defaulted	Intercept	2.378	.779	9.326	1	.002			
	Risk Tolerance	-1.480	.312	22.564	1	.000	.228	.124	.41

Source: Field data 2016 a. The reference category is: Pay on time.

CONCLUSIONS

The results showed that an increase by one unit in risk tolerance by a YEDFB beneficiary, the relative risk of being a delinquent than a repayer decreases by 0.338 units while holding other variables in the model constant. Therefore, if the borrowers risk tolerance increases, the probability of being a repayer is greater than probability of being a delinquent. Similarly, comparing repayers and defaulters, the expected beta was ($\text{Exp}(B) = 0.065$) which means that if a borrowers risk tolerance increases by a unit, the probability of a borrower being a repayer is 0.065 times likely than being a defaulter. This probability was strongly statistically and significantly predicted by the model ($p < 0.001$). Therefore, it can be concluded that YEDFB borrowers with higher risk tolerance levels (risk takers) are likely to be good loan repayment performers. However, most YEDFB beneficiaries were not risk takers.

RECOMMENDATIONS

Having established that the four finance determinants namely; portfolio characteristics, borrower risk tolerance, financial literacy and cost of capital are significant predictors of YEDFB loan repayment performance in Trans Nzoia County, it is recommended that the YEDFB management should take keen interest in the four factors if they have to improve repayment performance.

YEDFB officers should give attention to continuous follow up on proper loan utilization and appropriate training programmes that will improve financial decision making to ensure growth and continuity of enterprises. This will minimize loan diversion to non profitable business ventures like domestic consumption. YEDFB loan beneficiaries should be committed to acquiring entrepreneurial skills and concentrate on growing incomes so as to repay loans consistently.

The national government should aggressively market youth financial products, engage youth entrepreneurship programmes to school leavers and tertiary college graduands to embrace enterprise development as a promising form of employment. This will enhance performance of businesses and incomes thereby improving YEDFB loan repayment performance. The national state department in charge of YEDF should undertake a nationwide monitoring and evaluation assessment of YEDFB program with a view of refining lending guidelines to accommodate the financial determinants to enhance repayment performance.

AREAS FOR FURTHER RESEARCH

The focus of this study was on effect of finance determinants on YEDFB loan repayment performance. It is, therefore, recommended that further research should introduce moderating

factors such borrower demographics that were statistically and significantly correlated with YEDFB loan repayment performance in the current study. In addition, use of longitudinal data in assessing the effect of finance determinants on YEDFB loan repayment should be undertaken as a future research agenda.

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