

# **AN EMPIRICAL ASSESSMENT OF MONTHLY DEFAULT PENALTIES AS A DETERRENT MEASURE OF DEFAULT ON HIGHER EDUCATION LOAN RECOVERY IN KENYA**

**Kiplimo Sirma**

PhD Student, School of Business and Economics, Kabarak University, Kabarak, Kenya

[kiplimosirma@gmail.com](mailto:kiplimosirma@gmail.com)

**Clifford Machogu**

Lecturer, of School of Business Murang'a University, Murang'a, Kenya

[cgm4@rediffmail.com](mailto:cgm4@rediffmail.com)

**Paul Muoki Nzioki**

Lecturer, School of Business, Laikipia University, Nyahururu, Kenya

[muokih@yahoo.com](mailto:muokih@yahoo.com); [muokih@gmail.com](mailto:muokih@gmail.com)

**Adam Shisia** 

Lecturer, School of Business and Economics, Machakos University, Machakos, Kenya

[adamshisia@gmail.com](mailto:adamshisia@gmail.com)

## **Abstract**

*Despite the various measures taken by Higher Education Loans Board (HELB) in Kenya to increase its loans recovery, there has been reluctance by HELB funded University graduates to repay their loans. In this regard, HELB has put in place several measures with a view to boost its recovery. Of particular interest to the present study is the monthly penalty of Ksh.5000 with effect from 2010 which acts as a deterrent measure to would be defaulters. The aim of this study was therefore to assess the deterrent effect of monthly default penalty on higher education loan recovery in Kenya. The study used both descriptive design and longitudinal design. Both primary data and secondary data were collected from all those undergraduate students who benefitted in any Kenyan university. Descriptive analysis involved means and*

*standard deviations as measures of central tendencies and dispersion respectively. Inferential statistics limited itself to regression and correlation analysis. The study found out that there is a significant association between monthly default penalty and loan recovery. It also found that monthly default penalty on defaulters was a significant deterrent of HELB loan defaulters. The study recommends the establishment of a default management program as an extra step to reducing default rate and ensuring that loanees are aware of their responsibility. It also recommended that future studies should explore factors that cause loan defaulting.*

*Keywords: Deterrent measures, Monthly Default Penalty, Loan Recovery, Higher Education Loans Board, Kenya*

## **INTRODUCTION**

The loan schemes vary from country to country but all government funded loans scheme have one component in common, which is that they are greatly subsidized by respective governments. This implies that a sizeable percentage of the total loans expenditure is not expected back in repayment (Kimani, 2011). Student loan schemes, typically meant to finance tertiary education are of specific interest to governments since these schemes have the ability to contribute to the solution to a wide range of policy challenges faced by governments (Ziderman, 2012).

Across developing countries Africa included, higher education has become progressively significant not only to persons, with a view to improve their status and elevating their lives, but also to the greater society for both economic prosperity and progression of good governance (Ngali, 2013). The spirit is that universally, countries have recognized that development can only take place if the competencies, needs, and productivities of human capital are enhanced across the various economic sectors (Leseeto, 2010). Nonetheless, despite the universally acknowledged prominence and its substantial capital claim on public wealth across the world, higher education in most developing and developed countries is anguishing from growing severity. This is manifested in key areas such as poor student loan recovery (Hicks, 2013; Gaitho, 2013).

Loan recovery is the retrieving back of loan from previous loan recipients (Kipkech, 2011). A default happens when the loan beneficiary does not make the expected payments or in one way the loan beneficiary does not meet the terms of a loan (AlMazrooei, 2014). When loans fail to perform the value of assets deteriorates and can negatively impact the asset base of a lending institution and negatively impact the institutions' ability to lend further (Ndung'u, 2007).

Student loan recovery has been a great drawback in the developing economies. A World Bank commissioned comparative study by Adrian et al. (2012) determined that student loans have been given much attention both in practice and literature. The study recommended that whereas the student loans have been disappointing, appropriately rehabilitated they can constitute a productive instrument for cost recovery.

HELB is established by the HELB Act Cap 213A of 1995 which provides for the formation of a board of management whose mandate is to disburse loans, bursaries and scholarships to enable Kenyan students obtain higher education at licensed institutions of higher learning. Since its commencement, HELB has lent a total of Kshs40.2 billion to 375,783 students out of which Kshs12.1 billion is not due. As at December 2016, only 68,522 past students have fully paid their loans, while 98,000 are currently servicing the loans. The default rate is at 34% (HELB, 2016).

Compared to 144,788 students financed in 2013/2014 at a cost of Kshs.6.168b, the HELB had realized an increase of 15.7% in the 2014/2015 financial year, financing a total of 167,553 undergraduate students at a cost of Kshs. 6.99 Billion. Over the same period, a total of Kshs110.6 Million was used for loans and Kshs51.9 Million for bursaries financing a total of 6,236 students from over 60 TVET institutions under the Ministry of Education, Science and Technology. This was also an increase compared to those who were financed in the 2013/2014 financial year when 2,504 students were awarded loans amounting to Kshs. 65.84 Million and bursary amounting to Kshs. 32.09 Million (HELB, 2016).

### **Purpose of the Study**

To assess whether monthly default penalties act as a deterrent measure of default on higher education loan recovery in Kenya.

### **THEORETICAL REVIEW**

This study is anchored on various theories that underpin the understanding of the relationship between the monthly penalty deterrent measure and loan recovery. However, moral hazard theory is most applicable to this study.

### **Moral Hazard Theory and Loan Recovery**

The moral hazard theory posits that a loan beneficiary potential loan beneficiary has the enticement to fail to pay except if there are penalties for their future submissions for loan. Dembe and Boden (2000) trace back the origin of the concept of moral hazard to the 17<sup>th</sup> Century as being extensively used by English insurance companies. This is an outcome of the

striving loaners lending financial institutions have in evaluating the degree of wealth loan beneficiaries potential loan beneficiaries will have amassed by the due time that the debt must be repaid, and not when of the loan is being applied for. If the lending financial institutions lending financial institutions cannot evaluate the potential loan beneficiary potential loan beneficiary's wealth, the potential loan beneficiary will be desirous to fail to pay on the loan advanced. Foreseeing this, lending financial institutions will raise rates, resulting ultimately to the market collapse (Alary & Goller, 2001).

According to a lending financial institutions' model developed by Padilla and Pagano (1997), the loan performance relies on the value of the potential loan beneficiary and on their effort. Primarily, each bank owns private facts on the worth of a potential loan beneficiary. According to Rajan (1992), subsequent advancing a loan to a potential loan beneficiary, a financial institution can explore its exclusive information on their worth and threaten to refuse advancing loans to obtain rents from the potential loan beneficiary. Forestalling that the earnings of his determination will be moderately seized by the lending institution, the potential loan beneficiary has then a lessened inducement to apply energy *ex ante*. This in return worsens his settlement performance. Lending institutions can confront this enticement difficulty by undertaking *ex ante* to disseminating one with another lending institution their exclusive statistics about potential loan beneficiary's credit-worthiness. Anticipating that this statistics bringing together will encourage antagonism among lending financial institutions, potential loan beneficiaries will be reiterated to that it will not be possible to no hold and will advance their effort, dropping law-breaking rates (Padilla & Pagano, 1997).

A conduit through which a lending financial institution can affect lending consequences is by commanding restraint on potential loan beneficiaries. According to Padilla and Pagano (2000), lending financial institutions' sharing of information encourages potential loan beneficiaries to apply effort since they "put on an act for a wide-ranging spectators", meaning that if they are offending on their pledged responsibilities, their delinquency will be revealed to more lending financial institutions. As such, in this context sharing of credit information alleviates potential loan beneficiaries' moral hazard. On the other hand, it is also underscored by Padilla and Pagano (2000) that this effect deteriorates if lending financial institutions pool statistics on potential loan beneficiaries' characteristics in adding to law-breaking information. A high quality in this instance, potential loan beneficiary recognizes that anyhow their high credit worthiness will be unveiled to lending financial institutions, notwithstanding of whether their loan repayment history is bad or good.

According to Hicks (2013), moral hazard in economics takes place when one individual pursues more risks owing to the fact that another person suffers the price of the risks pursued. Alary and

Goller (2001) opine that a moral hazard may be apparent where the undertakings of one individual may alter to the disadvantage of the other party after a financial transaction has occurred. Rajan (1992) is of the view that moral hazard takes place happens under a category of information asymmetry in which case the venturesome individual to a business deal discerns more concerning its purposes as opposed to the individual paying the penalties of the risk taken. In broad sense, moral hazard happens when the individual with supplementary information concerning its intentions or actions has a propensity or inducement to conduct themselves unbecomingly from the standpoint of the individual with a smaller amount of information.

According to Floro and Yotopoulos (1991), moral hazard happens if increasing the interest rate encourages potential loan beneficiaries, who possess a number of developments, to capitalize on a project that produces for the lending institution a lesser return as compared to another project whereby the potential loan beneficiaries could have capitalized. Like the foregoing case, in this case, it is also assumed that both the lending institution and the potential loan beneficiary are not risk averse (Knapp & Seaks, 2014). It is also assumed that a potential loan beneficiary has to make an investment in either one of the two said projects, that is risky or safe, that are obtainable to them, the more uncertain venture has a lesser likelihood of realization but a greater settlement if it prospers, whereas the safe investment has a greater likelihood of accomplishment but with lesser return. Nevertheless, the lending institution is not aware of which investment has been selected (Gori, 2010).

If the investment is prosperous, the lending institution will realize at greatest the loan quantity including the interest accumulated, whereas should the investment fail, the lending institution will not realize anything (Luitel & Sobel, 2015). The anticipated earnings to the lending institution are lesser for the more risky investment as compared to the safe investment. Consequently, because of the moral hazard problem, lending institutions tend to maintain low interest rates and as an alternative ration loans with a view to reduce extra demand (Malik & Schwab, 1991).

Diverse types of lending institutions attempt to address the information asymmetry problem in diverse ways. Formal lending institutions are likely to address the incentive and selection difficulty by commanding severe guarantee necessities or preventive agreements, or by necessitating potential loan beneficiaries to deliver prudently documented indication, presenting their ability and intention to repay the loan if awarded (Floro & Yotopoulos, 1991). Individuals who are awarded loans from the formal lending institutions are typically institutions and firms which are vigorous in the formal commercial segment; they have the obligatory guarantee, credit-worthiness, and/or use a dependable book-keeping system.

Cigno and Luporini (2003) make a significant contribution that regards higher education loans with respect to moral hazard deliberations. The authors assert that loans advanced to students, including the income dependent ones, are not ideal, where the idealness in this case takes into contemplation both reallocation and efficiency. With the suitable characteristics, prospective university students, ought to be offered a loan, reliant on both merit and need. The higher education loans scheme ought to be funded by an ex-student tax that reallocates from the higher remunerated to the scholastically more prosperous.

While credit-worthiness necessities to be awarded the loan limit the consequence of adverse selection, reallocation in the direction of the scholastically more prosperous limits the moral hazard impacts. The reality that both the repayment and the scholarship that typify the optimum procedure are contingent on the results attained in higher education may suggest some inevitable challenges of practical application. Further, the supposition that the ideal student loan arrangement is an ex-student tax is grounded on the point that there lacks a vibrant link between the loan awarded and the settlement. In income-dependent loans of the risk disseminating type, including the higher education loans scheme, the point that the risk is spread with the populace may add to break the relationship between payment and receipt, and cause it to be ideal in the intellect of Luporini and Cigno (2003).

As such, in the present study, the theory will be used to understand that the loan repayment measures imposed by HELB including CRB, monthly default penalties and clearance certificate are meant to both dissuade ex-students from falling to repay their loans and to and amass funds from the ex-students through the 'taxes' as opined by Cigno and Luporini (2003) to be able to fund prospective and continuing students.

## **EMPIRICAL LITERATURE REVIEW**

There are several empirical studies that were undertaken by different scholars concerning touching on loaned fault deterrents. These are discussed as follows:

### **Monthly Default Penalties and Higher Education Loan Recovery**

According to Athreya et al. (2012), punitive penalties, by make sure that competitive lending financial institutions are required to advance loans at or close to rates that are risk-free, increase access to loans. However, to the degree that potential loan beneficiaries face risks that cannot be insurable, severe punishments also make seeking loans precarious, as debt ought to be paid regardless of a borrower's *ex post* circumstances. Dubey, Geanakoplos, and Shubik (2015) and Zame (2013) argue with reference to the use of punishments, show hypothetically

that if credit markets are imperfect at the beginning, debts that may fail to be paid can play a crucial role in complementing present markets.

Dubey et al. (2015) show in specific terms that punishments may be overly negligent, but can at the same time is overly stringent. In other words, punishments can be fixed so low as to permit failure to pay to occur very often and generate burden losses, from both the *ex post* retributive action and a monetary externality functioning by interest rates. Equally, greatly punitive *ex post* punishments may harm risk-sharing by eliminating state-eventuality in the liability dispensed by households.

As Wairimu (2013) asserts, lending institutions are confronting a massive risk of nonperforming loans noticing that bigger loans have bigger risk exposure, so the adjustable costs per dollar is greater. The study further argues that if lending financial institutions do not take additional measures, there might be more defaults on loans. To address the drawback of NPLs, an organization is supposed to monitor the conduct of potential loan beneficiaries and punish defaulters.

## **METHODOLOGY**

### **Research Design**

This study design was multivariate in nature, incorporating both descriptive and longitudinal study designs. The descriptive research design was employed since the study attempts to explore ideas with a view to understand cause and effect, which in the present study involves determining whether significant associations exist between the monthly default penalty measures and loan recovery as stated in the hypotheses. The longitudinal design was relevant since the study for over a specified time periods.

### **Population of the study**

The population of this study comprised of Higher Education Loans Board beneficiaries who have either cleared their loan repayment or are now servicing the same (HELB, 2016). The information used was loans recovery collections data and monthly default penalty data. The target population was a total of 272,701 beneficiaries who have either cleared their loan repayment or are now servicing the same (HELB, 2016).

### **Sample and Sampling Procedure**

A sample of former students who finished their undergraduate studies from December 2009 to December 2015 from either public or private universities in Kenya under loan scheme was selected. The samle size of 384 ex-undergraduate university students across the country was



used. The individual respondents were selected by use of stratified sampling and convenience sampling. The strata comprised of the ex-undergraduate university students either formally employed and the non-formally employed sample based in Nairobi County as it is the capital city of Kenya and hence central for the country.

### Data Collection

The study used both primary and secondary data. Secondary data was sourced from the Manager, Loan Repayment & Recovery Department and the World Bank database portfolio for loans recovery collections and monthly default penalty data and whereas primary data was used structured questionnaires from the former students sampled.

### Reliability and Validity of Data Collection Instruments

For reliability and validity, the study performed content validity by consulting with the university supervisors who gave their feedback on the extent to which the indicators correctly represent the concept of the study.

To measure of internal consistency, Cronbach alpha was used to test the internal reliability whose result was .07 and was deemed an acceptable reliability coefficient to measure the instrument.

### Data Analysis

SPSS software was used to analyze data, which included both descriptive analysis and inferential analysis. Pearson correlation was used to check for the nature and significance of associations between the hypothesized relationships while linear regression analysis was used to assess the strength of the relationships between higher education loan recovery and monthly default penalty variables. The regression analysis model is shown below:

$$Y = \alpha + \beta_1 MDP + \varepsilon$$

Whereby:

Y = Higher Education Loan Recovery

$\alpha$  is the y-intercept or model coefficient;

$\beta_1$  is the coefficient of the independent variables;

MDP = Monthly default penalty

$\varepsilon$  is the error term established from heteroscedasticity test.



## FINDINGS

### Descriptive Statistics for Monthly Default Penalty

The study sought to assess the impact of deterrent effects of monthly default penalties on higher education loan recovery. To this end, respondents were asked to respond to pertinent statements posed by indicating the level at which they agreed with the same, as applied in their respective cases. Responses were given on a five-point Likert scale (where 1= Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree). Similarly, to the preceding analysis, the mean scores of 0 to 2.5 have been taken to represent statements dissented upon by a majority of respondents while mean scores of between 2.6 to 5.0 have been taken to represent statements agreed upon by a majority of respondents. The strengths in disagreement or agreement is represented by the respective strengths of the mean scores, descending for disagreement and ascending for agreement. Table 1 below presents the findings.

Table 1. Descriptive Statistics for Deterrent Effects of Monthly Default Penalties

	N	Mean	Std. Dev	Skewness; S.E =.141	Kurtosis; S.E=.282
Motivates (d) me to pay my HELB loan	297	3.69	1.106	-1.092	.576
Motivates (d) me to get a job to pay my HELB loan	297	3.36	1.198	-.577	-.730
Motivates (d) me to channel some funds towards paying my HELB loan	297	3.64	1.091	-.874	.038
Motivates (d) me to source for funds to pay my HELB loan	297	3.66	1.110	-.869	-.054
Motivates (d) me to save enough to pay my HELB loan	297	3.52	1.075	-.598	-.355
Is the sole reason why I pay/paid my HELB loan	297	2.77	1.160	.377	-.765
Is the sole reason why I intend to pay my HELB loan	297	2.60	1.150	.359	-.783

As indicated in table 1, a majority of respondents highly agrees that the monthly default penalties have either motivated or motivates them to pay their HELB loans (3.69); to source for funds to pay their HELB loan (3.66); to channel some funds towards paying their HELB loan (3.64); to save enough to pay their HELB loan (3.52); and to get a job to pay their HELB loan (3.36). A majority however only moderately affirmed that the monthly default penalty is the sole reason why they pay/paid their HELB loan (2.77); and that the same is the sole reason why they intend to pay their HELB loan (2.60). As also observed in the descriptive statistics, all the variables were normally and moderately normally distributed, with Skewness and Kurtosis values ranging with -1 to +1 and -2 to +2 respectively.

## Logistic Regression

The study sought to test the relevant null hypotheses that: monthly default penalty does not have statistically significant deterrent effect on higher education loan recovery in Kenya. To test the hypotheses, the study performed a binary logistic regression. This was necessitated by the categorical dependent variable that is whether respondents had either paid or were paying their HELB loans or not, as a measure of loan recovery. This was responded to as either yes or no. The logistic regression analysis produced the omnibus test of model coefficient, a model summary, the Hosmer and Lemeshow Test as well as the coefficient of variable in the equation. The following logit linear regression model was used:

$$Y = \alpha + \beta_1 MDP + \varepsilon$$

Whereby:

Y = Higher Education Loan Recovery

$\alpha$  is the y-intercept or model coefficient;

$\beta_1$  is the coefficient of the independent variable.

MDP = Monthly default penalty

$\varepsilon$  is the error term established from heteroscedasticity test

Table 2. Logit Regression

<b>Omnibus Tests of Model Coefficients</b>							
		Chi-square	Df	Sig.			
Step 1	Step	62.791	4	.000			
	Block	62.791	4	.000			
	Model	62.791	4	.000			
<b>Model Summary</b>							
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square				
1	160.257 <sup>a</sup>	.191	.361				
a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.							
<b>Hosmer and Lemeshow Test</b>							
Step	Chi-square	df	Sig.				
1	54.725	8	.000				
<b>Variable in the Equation</b>							
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 <sup>a</sup>	MD Penalty	-.126	.052	5.852	1	.016	.881

Omnibus Tests of Model Coefficients		Chi-square	Df	Sig.
Step 1	Step	62.791	4	.000
	Block	62.791	4	.000

a. Variable(s) entered on step 1: monthly default penalty.

As table 2 details, the omnibus tests of model coefficients reveals a Model Chi-square value of 62.791 with a P value of .000 which is statistically significant both at 99% confidence interval (0.01) and 95.0% confidence interval (0.05). This implies that the data fits well in the model and there exists linear dependence between the dependent (loan recovery) and the explanatory variable that is monthly default penalty. The model summary further shows that the model has a considerable explanatory value. It was established from the summary that the predictors, that is monthly default penalty explain between 19.1% (Cox & Snell R Square) and 36.1% (Nagelkerke R Square) of the variation in loan recovery. The remaining percentage is explained by other factors not included in the model. The Hosmer and Lemeshow Test further reveals the overall fit of the model. The P value of .000 implies that the model is statistically significant can be relied upon to project a linear association between the dependent (loan recovery) variable and the explanatory variables that is monthly default penalty.

A negative Beta coefficient was further established in monthly default penalty implying that a unit increase in the monthly default penalty leads to a .126 decrease in the probability of HELB loanees falling into the target group, that is of those who have either fully paid their loans or are in the process of servicing the same. This was statistically significant, with a P value of .016 > .05 pointing to a significant association between monthly default penalty and loan recovery albeit a negative one. The study thus fails to accept the second null hypothesis of the study, that the monthly default penalty does not have statistically significant deterrent effect on higher education loan recovery in Kenya. The study thus accepts the alternative hypothesis that the monthly default penalty has a statistically significant deterrent effect on higher education loan recovery in Kenya.

## CONCLUSION

The study concluded that monthly default penalty on defaulters was a significantly deterrent and had successfully dissuaded would be defaulters into paying their HELB loan obligations. The Kshs.5,000.00 monthly penalties charged on HELB loan defaulters can be termed as punitive with considerable deterrent effects. The same has acted as a motivation for would-be defaulters

to service their loans on a monthly basis with a view to avoid the penalty. This is so, as whatever amount remitted to HELB loan cancels the monthly default penalty for the remitter's account. In light of this, the monthly default penalties have either motivated or motivates them to among others, to pay their HELB loans; or source for funds from elsewhere to pay their HELB loans; channel some funds towards paying their HELB loans; save enough to pay their HELB loans; and to get a job to pay their HELB loans.

## RECOMMENDATIONS AND WAY FORWARD

The study recommends the establishment of a default management program as an extra step to reducing default rate. An effective default management program will ensure that the loanees at the point of receipt of the loan are aware of their responsibility.

It is recommended that future studies should extent the present study by exploring what factors cause loanees to default in paying HELB loans and what deterrent measures determine the extent of loan recovery in Kenya.

## REFERENCES

- Abrams, D. S. (2012). Estimating the Deterrent Effect of Incarceration Using Sentencing Enhancements. *American Economic Journal: Applied Economics*, 4 (4): 32–56
- Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Ajzen, I., & Driver, B. L. (1991). Prediction of the Leisure Participation from Behavioral, Normative and Control Beliefs: An Application of the Theory of Planned Behavior. *Leisure Sciences*, 13, 185-204
- Akers, R. L. (2000). *Criminological theories*. Los Angeles: Roxbury.
- Alfred, B., Jacqueline, C. & Daniel, N. (1978). Deterrence and Incapacitation: Estimating the Effects of Criminal Sanctions on Crime Rates' (Report of the Panel on Research on Deterrent and Incapacitative Effects, National Academy of Sciences).
- Alm, J. Jackson, B.R and McKee. (1990). Estimating the Determinants of Taxpayer Compliance with Experimental Data: *National Tax Journal*.
- Al-Tamimi H, Al-Mazrooei, F. (2014). Banks' risk management: A comparison study of UAE national and foreign banks. *The Journal of Risk Finance*. 8(4):394-409.
- Armitage, C. J., & Conner, M. (1999). Distinguishing Perceptions of Control from Self-Efficacy: Predicting Consumption of a Low-fat Diet Using the Theory of Planned Behaviour. *Journal of Applied Social Psychology*, 29, 72-90.
- Armitage, C. J., & Conner, M. (2001). Efficacy of the Theory of Planned Behaviour: A Meta-Analytic Review. *British Journal of Social Psychology*, 40(4), 471-499
- Ashley, D. & Orenstein, D.M (2005). *Sociological theory: Classical statements* (6th ed.). Boston, MA, USA: Pearson Education. p. 241
- Athreya, K., Xuan, S. & Eric, R. (2012). A Quantitative Theory of Information and Unsecured Credit," *Federal Reserve Bank of Richmond Working Paper* 08-6.
- Athreya, K., Xuan, S. T. & Eric, R. Y. (2014). Unsecured Credit Markets Are Not Insurance Markets *Journal of Monetary Economics* 56(1), pp. 83-103.

- Baum, S. & O'Malley, M. (2013). College on credit: How potential loan beneficiaries perceive their education debt. *Journal of Student Financial Aid*, 33(3), 7-19.
- Beccaria, C. (1963). *On crimes and punishments* (introduction by H. Paolucci, Trans.). New York: Macmillan. (Original work published 1764)
- Beck, L., & Ajzen, I. (1991). Predicting Dishonest Actions Using the Theory of Planned Behavior. *Journal of Research in Personality*, 25(3), 285-301.
- Becker, G.S, Buchner H.J and Sleeking S, (1987).The impact of public transfer expenditures on tax evasion: An experimental approach, *Journal of public economies*, 34:243-52
- Becker, Gary (1994). *Human Capital: A theoretical and empirical analysis with special reference to Education*. The University of Chicago Press
- Bentham, J. (1948). *An introduction to the principles of morals and legislation* (with an introduction by W. Harrison, Ed.). New York: Macmillan.
- Blumstein, Alfred; Cohen, Jacqueline; Nagin, Daniel, eds. (1978). *Deterrence and Incapacitation: Estimating the Effects of Criminal Sanctions on Crime Rates*. Washington, D.C.: National Academy of Sciences
- Boit, J. M., & Kipkoech, L.C. (2012). Social selection and the role of HELB in equalizing educational opportunities in higher education in Kenya. *Research Journal in Organizational Psychology & Educational Studies*
- Buchan, H. F. (2005). Ethical Decision Making in the Public Accounting Profession: An Extension of Ajzen's Theory of Planned Behavior. *Journal of Business Ethics*, 61(2), 165-181.
- Carnoy, M. and Marenbach, D. (1975). The Return to Schooling in the United States, 1939-69, in Blaug, M. (ed) *The Economic Value of Education: Studies in the Economics of Education*, Edward Elgar Publishing Limited, UK, pp. 31-51.
- Chitty, H. (March 1st 2010). A New Formula for Cohort Default Rates: What aid administrators need to know? *University Business*. Retrieved 16 March, 2013 [Universitybusiness.com/article/new-formula](http://Universitybusiness.com/article/new-formula).
- Commission for Higher Education (2014). *Institutional Audit Report 2014*. Commissioned by CHE, Kenya.
- Connelly, L. M. (2008). Pilot studies. *Medsurg Nursing*, 17(6), 411-2.
- Conner, M., Lawton, R., Parker, D., Chorlton, K., Manstead, A. S. R., & Stradling, S. G. (2007). Application of the Theory of Planned Behaviour to the Prediction of Objectively Assessed Breaking of Posted Speed Limits. *British Journal of Psychology*, 98(3), 429-453
- Cooper, D.R. and Schinder, P.S (2003). *Business Research Methods* (8th Edition): Mc Graw-Hill Irwin
- Dillon, E. & Smiles, R.V. (2010). Lowering Student Loan Default Rates: What One Consortium of Historically Black Institutions Did to Succeed. *Education Sector Reports*. Washington DC: Education Sector.
- Donald, S. (2006). Writing the research report. In De Vos, A.S.; Strydom, H.; Fouché, C.B. and Delport, C.S.L. (2015). *Research at Grass Roots: For the Social Sciences and Human Service Professions: 3rd edition*. Pretoria: Van Schaik Publishers
- Dubey, P., John, G. & Martin, Shubik. (2015). Default and Punishment in General Equilibrium, *Econometrica* 73(1), pp. 1-37.
- Dembe, Allard E. and Boden, Leslie I. (2000). "Moral Hazard: A Question of Morality?" *New Solutions* 2000 10(3). 257-279
- Dynarksi, M. (2014). Who defaults on Students Loans? Findings from the National Post-Secondary Aid study. *Economics of education review*, 3; 55-68
- Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley

- Fisher, R.C. Godderis, J.H. and Young, J.C (1989). Participation in tax amnesties: The individual Income tax, *National Tax Journal* 42 No. 1:15-27
- Franklin, E., Zimringand, G. (1973). *Deterrence: The Legal Threats in Crime Control*. University of Chicago Press
- Gaitho N. (2013). Role of credit reference bureaus on lending financial institutions on credit access in Kenya: A survey of commercial banks in Kenya.
- Gall, A., Snape, D. & Spencer, L. (2007).The foundation of qualitative research. Ritchie, J. and Lewis, J. (eds.) *Qualitative Research Practice: A Guide for Social Science*
- George, S. & Mallery, W. (2010). *Handbook in research and evaluation*. San Diego, CA: Educational and Industrial Testing Services.
- Giora, H. (1967) An Economic Analysis of Earnings and schooling. *Journal of Human Resources* 2, Summer: 310-29
- Gori J.N. (2010). The relationship between Credit Risk Management practices and nonperforming Loans: A case of the Higher Education loans Board. Unpublished MBA Research paper, University of Nairobi.
- Greedy, J. and Francois, P. (1990) Funding Higher Education and Majority Voting. *Journal of Public Economics*, 43, pp: 181-200.
- Gross, C. & Hossler, H. (2014). What Matters in Student Loan Default: A Review of the Research Literature. *Journal of Student Financial Aid*. Volume 39, Number 1.
- Hansen, W. L. (1963) Total and Private Returns to Investment in Schooling. *Journal of Political Economy*, 71, April, 128-40.
- Hanson, B. (2012). Wither Qualitative/Quantitative?: Grounds for Methodological Convergence. *Quality and Quantity* 42:97–111.
- HELB (2016). 2015 Annual Report & Financial Statements. Available at [www.helb.co.ke/wp-content/uploads/2013/06/HELB-Annual-Report.pdf](http://www.helb.co.ke/wp-content/uploads/2013/06/HELB-Annual-Report.pdf). Accessed 27th November 2016
- Herr, E. & Larry, B. (2015). Predicting Student Loan Default for the University of Texas at Austin. *NASFAA Journal of Student Financial Aid* 35(2): 27-48.
- Hicks, M. J. (2013). Notes on: labor markets after the great recession: Unemployment and policy for indiana. *Labor Law Journal*, 64(2), 103-113.
- Ionescu, F. (2011). Risky Human Capital and Alternative Bankruptcy Regimes for Student Loans. *Journal of Human Capital*, 5(2), 153-206.
- Jackson, B. R., Milliron, V.C (1986). Tax compliance Research: Findings, Problems and prospects *Journal of Accounting Literature*, 5: 125-165
- Jacoby, J. E. (Ed.). (1994). *Classics of criminology*. Prospect Heights, IL: Waveland
- Jawad, H. (1993) Rates of Return to Investment in Umiversity Education: A case study of Iraq. PhD thesis, the University of Leicester, UK
- Keep, E. and Sisson, K. (1992). Regulatory Reform in Higher Education in the UK: Incentives for Efficiency and Product Quality. *Oxford Review of Economic Policy*, Vol. 8, No. 2, pp. 67-78.
- Kesterman, F. (2013). Student borrowing in America: Metrics, Demographics, Default Aversion Strategies. *NASFAA Journal of Student Financial Aid* 36(1): 34-51.
- Khan T, Ahmed H. (2011). Risk management: An analysis of issues in financial industry IRTI/IDB Occasional Paper. 5.
- Kilonzo, T.M (2012). The effect of tax amnesty on Revenue growth in Kenya: Unpublished MBA Research paper, University of Nairobi.
- Kimani, V.K (2011). Determinants of loan Recovery in student funding Organization; A case of the Higher Education Loans Board: Unpublished MBA Research paper, University of Nairobi.



Kipkech, J. R. (2011). Determinants of students loan default; A case of the Higher Education Loans Board: Unpublished MBA Research paper, University of Nairobi.

Kipsang, R. (2007). Assessment of Policy, Practice and implementation of funding Higher Education through the students' loans scheme in Kenya. Unpublished thesis, University of Nairobi.

Knapp, L. G., & Seaks, T. G. (2014). An Analysis of the Probability of Default on Federally Guaranteed Student Loans. *Review of Economics and Statistics*, 74(3), 404-411.

Koch, J. (2012). Regional Economic Impacts of the World-Wide Recession: A Case Study of Hampton Roads, Virginia. [Article]. *International Advances in Economic Research*, 18(2), 163-176. doi: 10.1007/s11294-012-9346-3

Lalampaa, J. (2006). Responses by the higher education loans Board (HELB) to the environmental challenges of funding higher education in Kenya. Master's Thesis, University of Nairobi

Leseeto, T. S. (2010). The effect of tax Amnesty of on value Added Tax in Kenya; Unpublished MBA Research paper, University of Nairobi.

Luitel, H.S. and Sobel, R. S. (2015). The revenue impact of repeated Amnesties.

Macy, A. & Terry, N. (2014). The Determinants of Student College Debt. *Southwestern Economic Review*. Vol. 34(1): 15-25.

Macy, Anne; Terry, Neil (2014). The Determinants of Student College Debt. *Southwestern Economic Review*. Vol. 34(1): 15-25.

Malik A, S. and Schwab, R. M. (1991). Economies of Tax Amnesties, *Journal of public economies* 1:29-49

Marcoux, B. C., & Shope, J. T. (1997). Application of the Theory of Planned Behavior to Adolescent Use and Misuse of Alcohol. *Health Education Research*, 12(3), 323-331

Marenbach, D. (1973) The Rates of Return to Education in the U. S. from 1939-1959, a PhD thesis, Stanford University, U. S.

Martin, Jacqueline (2005). *The English Legal System* (4th ed.), p. 176. London: Hodder Arnold

Mincer, Jacob *Studies in Human Capital*. 1. "Investment in Human Capital and Personal Income Distribution". Edward Elgar Publishing, 1993

Mlewa, C.W, (2012) Effectiveness of strategic management practices on loan recovery: a case of higher education loans board (Helb) Kenya. MBA Project, Kenyatta University.

Mohammed, H. (2015). *Credit Rating Agencies: Self-regulation, Statutory Regulation and Case Law Regulation in the United States and European Union*: Springer

Monteverde, K. (2010). Managing Student Loan Default Risk: Evidence from a Privately Guaranteed Portfolio. *Research in Higher Education* 41(3): 331-352.

Moyer, I. L. (2001). *Criminological theory: Traditional and nontraditional voices and themes*. Thousand Oaks, CA: Sage.

Nagin, D. S. (1998). Criminal deterrence research at the outset of the twenty-first century. In M. Tonry (Ed.), *Crime and justice: A review of research* (pp. 1–42). Chicago: University of Chicago Press.

Ndung'u, J. (2007). Loan Defaulting and Institutional Sustainability in Kenya. Unpublished MBA Research paper, University of Nairobi.

Ngali, R.M, (2013). The effect of penalty amnesty on loans recovery at the higher education loans board of South Africa. MBA Project, University of Cape Town

Njau, S. (March 3 2014). We are coming for you, HELB warns defaulters. *Daily Nation*. Available at <http://www.nation.co.ke/lifestyle/DN2>. Accessed on 28th November 2016

Nunnally, J.C. (1978). *Psychometric Theory*, McGraw-Hill, New York, NY.



- Odundo P.A, Njeru EHN (2005) "Higher Education Funding through Loan and Bursary Scheme In Kenya: Prospects And Challenges". A Paper Presented at the Regional Conference on Funding of Higher Education: The Role of Students' Loan schemes; Nairobi: October, 26th-27th, 2005.
- Osoro K, Nyolei J, Cheruto I, Odhiambo L. (2015). Credit Reference Bureau (CRB) As a Strategic Control Measure and Its Influence on the Financial Performance of Commercial Banks in Eldoret, Kenya
- Otuki (March 9 2016). Kenya has the largest number of jobless youth in East Africa. Business Daily. Available at <http://www.businessdailyafrica.com/Kenya-tops-East-Africa-s-list-of-youth-joblessness/539546-3108514-6cd5xgz/index.html>. Accessed on 28th November 2016
- Paolo, M. (2012) "A Taxonomy of Intellectual Capital", Research Note COM-17-1985, Gartner
- Parker, D., Manstead, A. S. R., Stradling, S. G., Reason, J. T., & Baxter, J. S. (1992). Intention to Commit Driving Violations: An Application of the Theory of Planned Behavior. *Journal of Applied Psychology*, 77(1), 94-101.
- Paternoster, Raymond (1987). The deterrent effect of the perceived certainty and severity of punishment: a review of the evidence and issues. *Justice Quarterly*. 4: 173–217
- Pissarides, C. (1996), 'Economic Growth: How Much Does Education Count? ', Centre Piece, The Magazine of Economic Performance, Issue 3 1996,2-5.
- Psacharopoulos, G. (1994). Returns to Investment in Education: A Global Update. *World Development*, Vol 22, No. 9, pp: 1325-1343.
- Ringera, M. (March 3 2014). We are coming for you, HELB warns defaulters. Daily Nation. Available at <http://www.nation.co.ke/lifestyle/DN2>. Accessed on 28th November 2016
- Ronald, L. Christine, S. (2013). *Student Study Guide for Criminological Theories: Introduction, Evaluation, and Application* (6 edn, OUP)
- Rothschild, M. and White, L. J. (1995) The Analytics of Pricing of Higher Education and Other Services in Which the Customers Are Inputs. *Journal of Political Economy*, Vol. 103, No. 3, pp: 573-586
- Ryan, P. (1992) Unbalanced Growth and Fiscal Restriction: Public Spending on Higher Education in Advanced Economies Since 1970. *Structural Change and Economic Dynamics*, Vol. 3, No. 2, pp. 261-288
- Simkovic, M. (2013). "Risk-Based Student Loans". *Washington and Lee Law Review*. 70 (1): 527.
- Soskice, D. W. (1993) Social Skills from Mass Higher Education: Rethinking the Company-Based Initial Training Paradigm. *Oxford Review of Economic Policy*, Vol. 9, No. 3, pp: 101-113
- Sparks, P., Shepherd, R., Wieringa, N., & Zimmermanns, N. (1995). Perceived Behavioural Control, Unrealistic Optimism and Dietary Change: An Exploratory Study. *Appetite*, 24(3), 243-255.
- Spence, Michael (1973). Job Market Signaling. *Quarterly Journal of Economics*. 87 (3): 355–374.
- Stephen, E., Brown, F. & Gilbert, G. (2010). *Criminology: Explaining Crime and its Context*. 7edn, Matthew Bender & Company
- Stigler, F (2002). *Research Methods in the Social Sciences* Oaks: Sage publications
- Tashakkori, A. & Teddlie C. (2010). *Handbook of Mixed Methods in Social and Behavioral Research*. Thousand Oaks, CA: Sage.
- Taylor, S., & Todd, P. (1995). Decomposition and Crossover Effects in the Theory of Planned Behavior: A Study of Consumer Adoption Intentions. *International Journal of Research in Marketing*, 12, 137-156.
- Valerie, W. (2010). *Deterrence in Criminal Justice: Evaluating Certainty vs Severity of Punishment: The Sentencing Project*.
- Vold, G. B., Bernard, T. J., & Snipes, J. B. (2002). *Theoretical criminology* (5th ed.). Oxford, UK: Oxford University Press.
- Volkwein, J. F., Szelest, B. P., & Cabrera, A.F., & Napierski-Prancl, M.R. (2013). Factors related to student default among different racial and ethnic groups. *Journal of Higher Education*, 69(2), 206-237.

- Wairimu, G. (2013). The effect of credit reference bureaus on the level of non- performing loans in the commercial banks in Kenya;
- Warue, B. (2012). Factors affecting loan delinquency in microfinance institutions in Kenya: *International Journal of Management Sciences & Business Research*. 1(12):26-55.
- Weale, M. (1992), `The Benefits of Higher Education: A Comparison of Universities and Polytechnics', *Oxford Review of Economic Policy*, Vol. 8, No. 2, pp. 35-47.
- Whitehead, A. K. (1981) Screening and Education: a Theoretical and Empirical Survey. *Br. Rev. Econ. Issues* 2(8), 44-62.
- Williams, G. (1996) *Paying for Examination of Issues and Options*. Education, London, UK.
- Woo, J. H. (2012). *Clearing Accounts: The Causes of Student Loan Default*. Rancho Cordova, CA: Edfund.
- Wood-hall M. (2014). Student loans in developing countries: Feasibility, experience, and prospects for reforming Higher Education. 23(2):347-356.
- World Bank Group (2014). Can higher education solve Africa's job crisis? Understanding graduate employability in Sub-Saharan Africa. Available at [www.britishcouncil.org/education/ihe](http://www.britishcouncil.org/education/ihe). Accessed on 28th November 2016
- World Bank Group (2016). Unemployment, youth total (% of total labor force ages 15-24) (modeled ILO estimate). Available at <http://data.worldbank.org/indicator/SL.UEM.1524.ZS?locations=KE>. Accessed on 28th November 2016
- Wu, Chih-Chun (2011). High graduate unemployment rate in Taiwanese undergraduate education. *International Journal of Educational Development*, 31 303-310.
- Zame, W. R. (2013). Efficiency and the Role of Default When Security Markets are Incomplete, *American Economic Review* 83(5), pp. 1142-64.
- Ziderman A, Albrecht D. (2012). *Funding universities in developing countries*, London; The Falmer Press.
- Ziderman, A. (2012). Funding student Loans in Thailand; revolving fund or open ended commitment? *Economies of Education Review*, Vol.21.
- Ziderman, A. and Albrecht, D. (2012). *Funding Universities in developing countries* London; The Falmer press.
- Zimring, Franklin E.; Hawkins, Gordon J. (1973). *Deterrence: The legal threat in crime control*. Chicago: University of Chicago Press.
- Johnson, B. and Onwuegbuzie A. (2004) Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33 (7): 14-26.
- Kothari, C. R. (2004). *Research methodology: Methods & techniques*. New Delhi: New Age International (P) Ltd.
- Ary, D., Jacobs, L. C., & Sorensen, C. (2010). *Introduction to Research in Education* (8 ed).Belmont,CA : WADSWORT CENGAGE Learning.
- De Vos, J., Strydom, B., Fouche, W. &Delpport, L. (2011). 3rdEdition.*Research Methodology*. Cape Town: Oxford University Press
- Attua, E. M. (2009). Using multiple linear regression techniques to quantify carbon stocks of fallow vegetation in the tropics. *West African Journal of Applied Ecology*, 12: 1 – 7
- Creswell, J. (2013). *Qualitative Inquiry and Research Design: Choosing Among the Five Approaches* (3e). Los Angeles: Sage.
- Collis, J. & Hussey, R. (2009) *Business research: A practical guide for undergraduate and postgraduate students*. 3rd edition, New York, Palgrave Macmillan.