EFFECT OF EMPLOYMENT ON THE URBAN YOUTH SAVINGS: A CASE STUDY OF NAIROBI CITY COUNTY, KENYA

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Abstract

Savings play a vital role as they act as backstop for capital formation and economic growth. A better saving behavior is the basis of a sound economic and financial policy. Studies on savings have historically taken a central position in several economic research areas. Issues and problems related to savings among households and individuals have gained significant importance in microeconomic studies as savings stimulate larger investments and higher gross domestic product growth. Studies conducted in developing countries have shown that savings remain low particularly among the youth due to various factors such as high unemployment rates, limited access to financial services and high dependency rates among other factors. Low savings inhibit the availability of investment funds. This research study examined the effect of employment on the urban youth savings using Ordinary Least Squares estimation method. The goal was to get an understanding on the effect of employment factors on the uptake of savings by the youth. A cross-sectional research design was adopted where primary data was collected from the youth in Nairobi City County. Random sampling technique was used to select the respondents in the survey where self-administered questionnaires were administered to 400 urban youth. The study's results demonstrated a showed a positive relationship between employment on the level of savings among the urban youth. Other factors such as rate of return was found positively affect savings while factors such as age, number of dependants and education effected savings negatively. The study concluded that creating more employment opportunities for the youth through quality job and through revitalizing both the formal and informal sector and offering higher rate of returns on savings would be critical in mobilization of savings.

Keywords: Employment, Urban youth Savings

1.0 Introduction

1.1 Background of the Study

The importance of savings is well articulated in the economic literature on savings. Many studies have demonstrated that proper saving behavior is positively associated with economic well-being of an individual, household and the national economy (Arezki et al. 2017; Kadir &Jamaluddin, 2020; Ribaj & Mexhuani, 2021). Arezki et al. (2017) argue that domestic savings have always provided grounds for capital formation and acted as economic pillars for development. Savings are also connected with economic growth, financial stability, poverty reduction, macroeconomic balance, and sustained development (Kadir & Jamaluddin, 2020). Accordingly, low levels of domestic savings would lead to low levels of loanable funds for investment. As per the United Nations Conference on Trade and Development (2004), the major factor in boosting in-country investment funds or capital is by increasing domestic savings. Consequently, developing countries must prioritize mobilization of savings so that capital can be invested to the most productive economic processes.

The importance of savings is further emphasized by Neoclassical growth models such as Ramsey (1928), Cass-Koopmans (1965) and endogenous growth models such as Harrod (1939), Domar (1946), Romer (1986) as well as Barro & Sala-i-Martin (2004) that assert that savings are critical to economic growth as they facilitate capital formation. Additionally, Solow growth model (1956) postulated that holding technology constant, growth in the economy is influenced by the rate of growth in population and by national savings rate. Capital accumulation therefore would be boosted by policies that aim at increasing savings rates and the capital imports or foreign savings.

Even though, savings are undoubtedly the bedrock of capital formation and economic growth, across the Sub-

Saharan countries saving rates have been persistently low averaging 17.3 percent of the GDP (Ribaj & Mexhuani, 2021). In Kenya saving rates have persistently ranged between 10-14 percent of the (GDP) compared to lower middle income countries such as Vietnam which save about 33 percent of their (GDP) (Hill, 2020) while upper middle income countries such as China save about 50 percent of its GDP (Zhang et al., 2018). In general, the rates of saving in Kenya from 1971-1979 averaged 17.8 percent, 1980-1991 averaged 18.8
percent, 1992-2007 averaged 13.78 percent and 2008-2019 averaged 14 percent below the Vision 2030 target of 28 percent (Musamali et al.,2022). Gross domestic saving rates in Kenya have continued to fluctuate over the years and particularly in the past ten years during the implementation of Vision 2030. Figure 1.1 plots the saving rates in Kenya in percentages between 2010 and 2021.
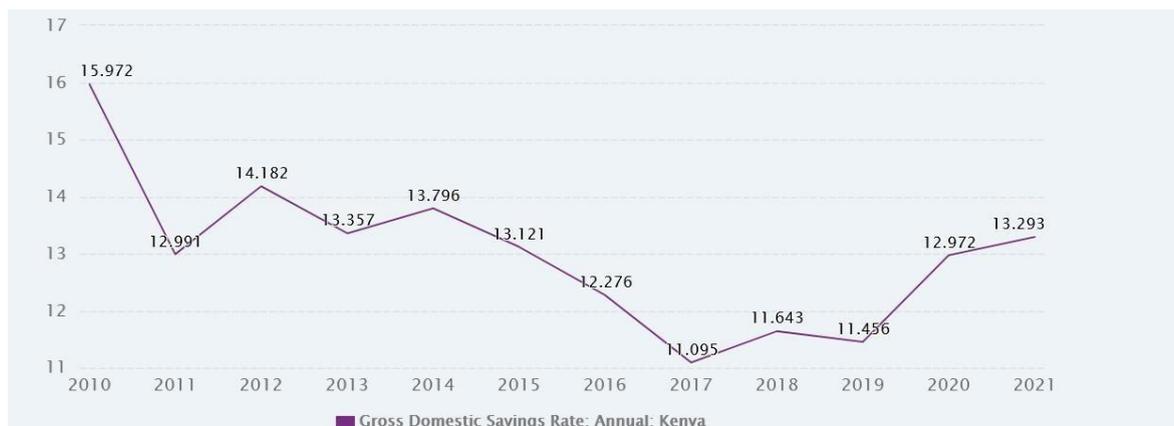

Figure 1 : Gross Domestic Savings as a percentage of the GDP in Kenya 2010-2021

Source: Census and Economic Information Center (CEIC), 2021

Figure 1.1 shows the trends in domestic saving rates in Kenya for the period 2010-2021. In the past decade, the gross domestic savings rates have been in the range of 10-14 percent recording a higher rate of 15.9 percent in 2010 and a lower rate record of 11.095 percent in 2017.

The challenge of increasing savings among the developing countries is exacerbated by the fact that about 80 percent of the youth from poor households have low or no incomes and are completely excluded from the financial systems (Johnson et al., 2018). The inadequacy in the mobilization of youth savings particularly in developing countries such as Kenya is further compounded by the fact that about 90 percent of the youth are in low income brackets, not optimistic that a better living standard and financial inclusion is possible and this results to millions of youth floundering in frustration and poverty bringing fragile countries down with them. Due to inadequate incomes, globally, about 2.5 billion youth are excluded from financial services including savings limiting them from accessing saving products particularly those offered by formal financial institutions. In Africa, saving rates average 18.3 percent of the GDP. The low saving rates are further depicted by the prevalence of savings accounts by youth in Africa where it ranges from 12 percent as compared to other continents such as Pacific and Asia that have a 50 percent youth savings account prevalence (Johnson et al., 2018).

According to Retirement Benefit Authority Report (2009), the most affected demographic group with poor income savings habits in Kenya is the youth as over 50 percent of the Kenyans who are non-savers are youth. Among the savers, the average rates remain far below the minimum target rate of 20 percent of their incomes (Authority, 2009). This non-saving habit is mainly attributed to inadequate incomes as 16 percent of Kenyans live below $2 which is an international poverty line. Research studies however show that by creating employment opportunities, uplifting them from extreme poverty and rasing their incomes as well as including them financially would promote accumulation of assets and savings (Flynn & Sumberg, 2018). Nevertheless, savings among youth in Kenya still lags at 12 percent (Kagotho et al., 2017). Disappointingly, youth are 33 percent unlikely to have savings accounts as compared to adults and 44 percent unlikely to save in the formal sector (Johnson et al., 2018). Yet, most of the

incomes saved by the youth are low and irregular given that about 38.9 percent of the youth population in Kenya is unemployed with absolutely inadequate disposable incomes (Kenya National Bureau of Statistics, 2019).

Other than income, employment is a critical factor in enhancing the saving culture through increased incomes and through enhanced productivity. The effort to creating employment opportunities especially among the youth in Kenya has been hampered by shrinking economy, pervasive income instability and labour market fragmentation. High unemployment rate is rampant in Sub Saharan Africa with rates of unemployment among the youth averaging 30 percent (Sumberg et al.,2021). This explains why the youth population save less including for precautionary reasons, making those living in low income households at a higher risk of falling below the poverty line if their incomes sources are suddenly cut. With more than 126 million working youth living in extreme and moderate poverty across the globe, savings mobilization remains constrained and inadequate (Sumberg et al.,2021). Therefore, a holistic approach that creates employment opportunities and increased resources among the youth would be helpful in mobilizing the savings of the youth.

Unemployment and low incomes among the youth not only hampers mobilization of savings, but also economic growth and productivity (Sumberg et al.,2021). Kenya has experienced a downward trend in employment of the youth despite several attempts by the government to create employment opportunities for youth. The labour market in Kenya is also fragmented with formal and informal sector subdivisions yielding few opportunities. The formal sector is characterized with high rates of unemployment and low wages relative to the cost of living while the informal sector is characterized with low incomes and wages (Boti Phiri, 2022).

These low wages and incomes account for the low rate of productivity in the economy among the youth providing little or no incentives to save. While Kenya has witnessed an economic growth rate averaging 5.3 percent in the past decade, the country has not achieved a corresponding employment growth rate due to fact that this growth rate has been majorly in the service industry which generated few employment opportunities.

Further, to achieve higher domestic savings rates, youth being the backbone of the Kenyan population should be encouraged to save. Mobilization of youth savings is therefore critical to capital formation and in boosting aggregage domestic savings (Kagotho et al., 2017). Adequate mobilization of domestic savings is a major government objective due to the fact that it has profound effect on economic growth. Achieving a better youth saving culture would have a ripple effect on average domestic savings (Kagotho et al., 2017). With better saving culture, youth could accumulate capital to start businesses, invest, and cushion against unforeseen circumstances, eventually putting them better off (Flynn & Sumberg, 2018). The empirical analysis on urban youth income, employment and savings in this study would therefore be useful for several reasons. First focusing on the effect of income and employment on youth savings would pinpoint as to policy approach to adopt to influence the mobilization of their savings. Secondly, youth provide a population dividend since they form the backbone of the national population. By encouraging youth to save, the national domestic savings would improve significantly, and investments would be boosted.

Zou et al., (2015) has indicated that youth are eager to participate in saving if they received the right support including creation of employment opportunities and including them in financial development. Interestingly, Flynn & Sumberg (2018) also found that youth savings created employment in Africa as savings acted as a source of capital for businesses and innovations. There is however need for a deeper understanding of the saving behavior of the youth. A majority of literature studies have nevertheless paid more emphasis on household savings neglecting the disaggregated youth population. Therefore, this study empirically analyzes urban youth savings to gain insights on the urban youth saving behavior.

When a large percentage of households are employed and their incomes are higher, this would influence saving positively. Economic empowerment of households and individuals in terms of higher earnings, greater workforce participation and increased opportunities enable

increased savings. The amount of personal savings arising from increased earnings from employment is critical in influencing the level of household wealth and national income (Alesane et al.,2019). One aspect that explains the reason for lower rates of savings among the youth is the wage inequalities and high unemployment rates. Low youth employment rates would jeopardize the economic growth rate by lowering savings and investments particularly in low and middle income countries such as Kenya given the fact that youth form the population bulk.

Though employment is expected to influence savings positively among the youth due to increased earnings, labor

market obstacles and inequality may create uncertainty as to the direction of savings as divergent economic and social circumstances create lower youth savings (Schaner, 2018). In many developing countries Kenya included, youth are only relegated to low income employment and positions and would therefore have low incomes which consequently would have little positive impact on savings (Alesane et al.,2019). Additionally, higher inflation rates in developing countries tend to diminish earnings from employment leading to low savings and therefore in this case employment would be expected to be counter- intuitive on savings. Individuals and households with employment instability would be expected to have a higher precautionary savings while households and individuals with more stable jobs are expected to have a lower precautionary saving motive. Nevertheless, to influence saving positively, there would be need for a labor market resiliency characterized by low unemployment rates and solid growth in job and equality.

1.2 Statement of the Problem

Savings are important to economic growth as increased savings would facilitate more rapid expansion of the capital stock and consequently higher investment rates and eventual economic growth would be realized. Saving rates in Kenya have been perpetually low even when compared with its regional peers Uganda and Tanzania that save on average at least 20 percent of their GDP (Abdul, 2022). Currently, the annual national savings rates for the country average 10-14 percent, far below the target rates of 25-28 percent (Government of Kenya, 2007). Therefore, it is essential to encourage the mobilization of savings to boost national savings, particularly among young people, who make up 75 percent of the Kenyan population, with those aged between 18-34 years constituting 29 percent of the population (Kenya National Bureau of Statistics, 2019). Accordingly, youth, demographically the largest segment in Kenya should be encouraged to save proactively. Further, Kenya's Vision 2030 focuses on promoting a competitive, efficient, and sound banking system and strong financial institutions that are well-supervised and regulated and can mobilize savings and provide financial support for the growth of the private sector.

From an institutional basis, when savings are priced appropriately, mobilization of small and micro-savings would lead to increased domestic savings and economic growth. Formal and informal financial institutions could gain the confidence of potential youth savers if the perceived risks are reduced. Ideally, savings targeting youth must meet certain characteristics such as liquidity, safety, and convenience and yield positive returns (Mbuthia & Ndiritu, 2020). Though the saving behavior of the youth in developing countries is paramount, it remains understudied and associated with preconceived but untested notions. It is assumed that youth have a higher preference for spending and are out of touch with financial institutions, particularly the formal ones, and therefore will save less. More so, youth saving behavior is intensely constrained by high rates of unemployment and low incomes.

Furthermore, literature on youth savings in Kenya is scarce since only few studies exist such as Kagotho et al (2017); Flynn & Sumberg (2018) and Rashid & Ondiek (2018). The existing studies on youth savings have not analyzed the effect of employment on the saving levels of the urban youth. Existing literatures such as Ribaj & Mexhuani (2021), Steinert et al. (2018), Kadir & Jamaluddin (2020), and Hill (2020) have mainly analyzed household and general population's savings without disaggregating savings behavior by demographic categories such as youth. Further, previous studies have not been conclusive about determinants of youth savings such as employment (Chakravarty & Vaillant, 2017, Konya & Nyakwara ,2019). In regard to the above literature, the objective of this study is to analyze effect of employment on urban youth savings mobilization.

1.3 Objective of the Study

To determine the effect of Employment on the Urban Youth Savings: A Case Study of Nairobi City County, Kenya

2.0 Theoretical Literature Review

2.0.1 Life Cycle Hypothesis (LCH)

Richard Brumberg(1954) postulated LCH to explain individuals' and households' savings and consumption patterns over their lifetime (Hayakawa, 2019). This theory assumes that consumers would try to smooth their consumption through borrowing when they have low incomes and saving when they receive higher payments. Modigliani and Brumberg (1954) assumed that households make plans of their lifetime consumption patterns so as to ensure maximum utility from consumption. On the assumption that a household does not intend to bequeath assets to their dependents, a household with age T assumption is expected to maximize the below function for utility.

$$U=U(C_T,C_{T+1},C_{T+2},\ldots,C_L)\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots2.1$$

In this case C_i (i=T, T+1, T+2,…,L) is the planned consumption for an individual of age i . L is the age of a consumer at death point. Given that an individual or a household must consume all resources in their lifetime equation 2.1 is maximized

subject to a budget constraint below.

$$A_{T-1}+Y_T+\sum_{i=T+1}^{N}\frac{Yi^e}{(1+r)^{i-T}}=\sum_{i=T}^{L}\frac{C_i}{(1+r)^{i-T}}\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots2.2$$

Where A_{T-1} is non-labor income or financial and physical assets carried over from households *(T-1)*th years., Y_T is the non-property income earned by a household at age *T*, Y^e_i is the non-asset income at ith age while r is the rate of interest. N is the retirement age for a household. Ando and Brumberg (1963) assumed that utility function 2.1 is homothetic which means that the planned consumption at current period can be given by:

$$C_T=\gamma_T W_T \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots2.3$$

Where W_T is the expected lifetime resources for a household at age T and is equivalent to the left-hand side of equation 2.2.

$$W_T=A_{T-1}+Y_T+\sum_{i=T+1}^{N}\frac{Yi^e}{(1+r)^{i-T}}\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots2.4$$

Similarly, in future years, planned consumption would be given by

$$C_i=\gamma_i W_T \qquad i = T + 1, T + 2,..., L \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots2.5$$

The γ_i in equation 2.5 is dependent on the rate of interest, tastes and preferences. It is also dependent on the household's age since resources are to be exhausted during the entire lifetime. Because resources are to be consumed fully in the lifetime of a household it means that a larger proportion of resources is expended towards end of the lifetime. In Equation 2.3 and 2.5 γ_i are not dependent on the size of W_T and therefore an individual of a household would keep the ratio of planned consumption unchanged regardless of the lifetime resources. The LCH links the present study in that it underpins the fact that income and consumption needs are unequal at various points in the individual lifecycle. Additionally, the hypothesis suggests that with high income, one can save and increase financial savvy compared with those in the low-income brackets (Spangenberg et al., 2019). Individuals will tend to have more significant consumption needs at their youth stage that exceeds their incomes, and this limits the proportion set aside towards savings. At retirement, incomes decrease, and the elderly are forced to consume from their savings. LCH, however, presents a potential problem because it implies that as national incomes grow, a savings glut would also result (Shaikh, 2018). The theory also assumes that individuals are planning and rational. Another problem with this theory is that it does not address any abnormal deviations in saving patterns over time.

2.0.2. Overlapping Generations Model (OLG)

The model is based on the assumptions that an individual will live for two time periods and consumption occurs in both of these periods. Nevertheless, an individual works in the first period and then retires in the second period. The model also assumes that household and government would not make payment transfers to another individual and therefore, the individual will pay for the consumption in the next period from first period savings (Diamond, 1965). A person who is born in period "t" is often referred to as generation "t". An individual is assumed to be young in period "t" while in period "t+1'' an individual is assumed to be old.

Each individual will maximize their utility which is a function of consumption level in both periods. It is argued that a consumer has no much concern about whatever happens after death and is selfless towards his inheritors and therefore would not make transfers to other generations. OLG assumes that any individual born in period "t" will have no properties therefore provide one labor unit inelasticity in the youth age to receive wage "w_t". This individual does not work in period "t+1''. Therefore, to cater for consumption in period "t+1'' a consumer has to make savings S_t in the current period. The wage w_t is consumed as consumption C_{1t} and saved as S_t. In period "t+1'', consumption C_{2t+1} is financed by savings from period "t" and accrued interest. On the basis that interest rate is "r" per period time, the future consumption would be given as $C_{2t+1}=(1+r_{t+1}).S_t$. As per the model savings are held to smooth consumption in future when one is not able to work.

2.1 Empirical Literature Review

Saikia (2018) examined the pattern of savings and investments among youth aged 17-25 years who had begun to earn from employment in Mumbai, India. The study aimed to understand the youth's income and saving patterns and their preferred saving mode. The study employed random sampling with questionnaires for collection of primary data. The independent variable was traditional and modern savings platforms, while the dependent variable was saving behavior. The questionnaire addressed factors such as how much the youths saved and whether it was saved in traditional modes or formal modes such as capital markets and bank accounts. Correlation analysis found that about 70 percent of the youth respondents made savings in the bank accounts and other modern methods. The study also concluded that most youth knew about the various saving options available due to the volume of

financial information available in recent days. To reinforce a proper saving behavior demands increasing financial saving options, increasing the reliability of financial institutions, offering financial security as well as higher returns for savings. While Saikia (2018) focused on the saving behavior of employed urban youth in India, the major objective of the present research study is on factors affecting savings of the urban youth in Kenya.

Schaner (2018) in a randomized assessment of rural Kenya, established that providing high- interest rates on savings accounts could substantially increase savings uptake. Further, offering promotional savings products, raising levels of employment, financial education, and higher interest rates in the short term may be a way of triggering changes in youth savings habits even though there is still inadequate research on the robustness of these approaches. Savings vehicles should be designed effectively to encourage the youth population to save.

Konya & Nyakwara (2019) investigated factors that influenced savings and allocation of assets among Kenyan rural individuals in low income brackets. Independent variables included financial education, fiscal policy, financial institutions and demographic information of the households. A stratified sampling strategy was adopted in collecting primary data, where 351 respondents were involved. A quantitative data analysis was adopted to make findings. The findings showed that financial education, fiscal policies, and demographic factors of the household significantly influenced the saving behavior and the allocation of assets among individuals in low-income rural regions. Though this study's main focus was on rural settings on the general population, it proved critical as it identified factors such as financial literacy, accessibility, interest rates and cost of opening a savings account as having had a significant influence on savings. The study underscored the importance of financial institutions and government on asset allocation and savings. Specifically, they should incentivize low income households to save proactively. Thus present study will therefore extend an analysis by evaluating the effect of income and employment on the urban youth level of savings in Nairobi City County.

Mwangi (2020) conducted a study on savings with the major objective of examining the savings' determinants among the Kenya households. This study included factors such as income, family size, education, age and employment status while the dependent variable was savings. The study employed secondary data drawn from Kenya's 2019 Fin Access Survey on households. The study adopted logit and probit models to study household saving behavior in Kenya. Mwangi (2020) established that gender and geographical factors affected household savings.

He concluded that the level or urbanization increased the savings uptake particularly of the formal savings. Additionally, family size or the number of dependents had an impact on savings where savings decreased with increased number of dependents. Employment and income were also found to increase savings. Age squared, casual labor, household size and female gender had a negative relationship with formal savings. These findings corroborate with past empirical findings. As such the study recommended for the promotion of education and employment to boost savings. These findings are critical to the present study which goes further by exploring the urban youth savings 'determinants.

3.0 Materials and Methods

3.1 Introduction

3.2 Research Design

The research study focused on analyzing the determinants of urban youth savings. The study employed a cross-sectional research design that entailed analyzing the primary data collected from urban youth respondents within Nairobi City county.

3.3 Theoretical Framework

The Life-Cycle Hypothesis(LCH) analyses households' determinants of savings to economic researchers as it can be empirically tested. LCH may be analysed by use of the Over-Lapping Generations Model (OLG) argued by Allais (1947) and Samuelson (1958). The OLG identifies lifetime changes in the behaviour consumers. OLG provides that a consumer would live for n-period. This model provides that time is discrete. Individuals have two life periods where the first period they have to work and in the second period they consume savings made in the first period. As such individuals want to maximize their utility. The utility function that describes the consumers' preference in this case is concave and time separable in each period of consumption. The utility of an individual is the sum of discounted future consumption and current income. As such a generation that is born in time "t" is expected to have the below utility function.

$$U(t)=u(c_{1t}) +\frac{1}{1+\theta}.u(c_{2t+1}), \qquad \theta{\le}0 ,u'(.)>0, u''(.)<0\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\text{.}3.1$$

Lifetime utility is dependent on both current and future consumption. Future consumption is derived from savings. As such, consumption made in future consumption is equivalent to the rate of return on savings so that consumption(C) and income(Y) in the second period is given by the equation

$$c_{(2t+1)} =(1+r_{t+1}). s_t\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots..3.2$$

Therefore, an individual would maximize utility as given below.

$$Max\ U_t= u_{(C1t)} + \frac{1}{1+\theta}.u(c_{2t+1})\dots\dots \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots...3.3$$

s.t

$$c_{1t} +s_t=w_t\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots.....\dots3.4$$

$$c_{(2t+1)} =(1+r_{t+1}). s_t\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots..\dots.3.5$$

Where c_{1t} is the current consumption, $c_{(2t+1)}$ is the future consumption, s_t is the young generation savings in period t, r_t is the rate of interest from t-1 to t and w_t is the young generation's wages. Assuming that s_t is the only decision factor, equation 3.5 may be rewritten as below.

$$maxU_t=u(w_t-s_t)+\frac{1}{1+\theta}.u(1+ r_{t+1}).s_t\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots.3.6$$

To maximize this utility model, first order derivative for utility with respect to savings is derived and equalized to zero.

$$\frac{dUt}{dSt} = 0 \Rightarrow u(w_t-s_t).(-1)+\frac{1}{1+\theta}.u'[(1+ r_{t+1}).s_t].(1+ r_{t+1})=0\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots.3.7$$

Simplifying F..O.C

$$u'(c_{1t})-(\frac{1+ rt+1}{1+\theta}).u'(c_{2t+1}) =0\Rightarrow \frac{u'(C1t)}{u'(c2t+1)} = \frac{1+ rt+1}{1+\theta}\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots.3.8$$

Savings are clearly and positively related with w_t and ambiguously related with $1+ r_{t+1}$.

The Euler equation shows that a consumer should be indifferent on saving and consuming one unit today and saving that unit and making future consumption. When an individual decides to consume today, he or she would derive marginal utility that is shown by the left-hand side of $u'(c_{1t})$. If a consumer saves that unit rather consuming, the consumer consumes r_{t+1} unit in the future which gives $u'[(c_{2t+1})]$ additional utility units. Since this utility would come in future it should be discounted by $\frac{1}{1+\theta}$. That is the right-hand side of the Euler equation. Since these two sides should be equal to what guarantee that individual is indifferent to consuming today and against consuming in the future. By finding the solution for consumption and savings, the saving function is given as below.

$$S_t=f (wt, r_{t+1}) \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots3.9$$

This means that saving is a function of interest rates and wages.

Table 1: Definition and Measurement of Variables

Variable	Definition	Measurement
Savings(S_i)	This is income not currently consumed but mainly set aside for future consumption and expenditures	This is the dependent variable in the study. Based on the amount of annual savings or deposits made and is measured in Kshs.
Age of respondent(AGE_i)	This is the length of time that an individual has lived	Age of the respondent measured in years from time of birth.
Transaction cost(TRC_i)	These are costs that are incurred in operating savings accounts or making savings	Based on average cost of opening savings account, running savings and withdrawal of savings monthly measured in Kshs.
Interest Rates ($INTR_i$)	This is the amount earned as interest on top of savings made through financial institutions	Based on interest rate earned on savings or deposits measured in percentage per year.
Education($DumEDU_i$)	This is the amount of schooling that an individual has achieved	Dummy variable based on the education level attained by the respondent (Primary education and below=0, Secondary education and above=1)
Dependants(DEP_i)	Individuals particularly family members dependent on others	Based on the total number of people directly dependent on the respondent.
Employment($DumEMP_i$)	The state of having paid work formally and informally	A dummy variable given as 1 if an individual is employed; Otherwise, 0

Source: Author (2023)

3.3 Study area and Target Population

The study population defines the group of individuals from which a sample size would be drawn. This research targeted Nairobi County's as the study area, with a population of more than 10,000 youth aged between 18-34 years, regardless of their employment status, gender, or level of education. For the present study, both female and male genders that are in their youth stage are involved in the study.

3.4 Data Analysis

The research study employed both descriptive data analysis and inferential data analysis to make informed findings. Diagnostic tests were conducted to identify inherent problems in the primary data and the model. An OLS Estimation method was adopted to show the effect of explanatory variables on the response variable.

3.5 Diagnostic Tests

To evaluate whether the results obtained were consistent and unbiased, diagnostic tests were conducted. Cronbach's test for reliability was adopted to check on the internal reliability of the collected data. A test on heteroscedasticity using Breusch-Pagan test, autocorrelation using Durbin-Watson test, normality using Kolmogorov–Smirnov test and Ramsey Regression Equation Specification Error Test (RESET) test would also

be conducted. Additionally, the variance inflation factor would be utilized to identify for multicollinearity among the variables.

4.0 Results and Discussion

4.1 Descriptive Statistics

Gender being critical in this study and being a factor that may influence savings was studied. It was a critical factor in this study to ensure that the data collected was representative. Table 4.1 shows the descriptive statistics on gender.

Table 2: Summary Statistics on Gender

Descriptive	Frequency	Percentage
Male	170	42
Female	230	58
Total	**400**	**100**

Source: Owner 'calculations (2023)

Among the respondents, 230 females participated consisting of 58 percent while 170 male respondents participated representing 42 percent. Female participants were more willing to participate in the survey. The difference in participation level being explained by unequal male and female population distribution of the youth in Nairobi City County.

Education is a critical factor that influences savings. This factor was included in this study to measure the effect of education level on urban youth savings. The level of education was

classified as primary, secondary, tertiary and post-graduate. Table 4.3 shows the summary statistics on the education level of the urban youth respondents.

Table 3: Summary Statistics on Education Level of the urban youth

Descriptive	Frequency	Percentage
Primary education	4	1
Secondary Education	64	16
Bachelor's Degree	284	71
Post-Graduate	48	12
Total	400	100

Source: Owner's calculations.

On education levels, 71 percent had Bachelor's Degree, 16 percent had secondary education, 1 percent had primary education while 12 percent had post-graduate qualifications. The descriptive statistics on education demonstrated higher literacy level among the urban youth. This is supported by the findings of Kenya Bureau of Statistics. (2020), which shows that 89 percent of Nairobi population is educated.

Age significantly affect savings across populations and is supported by the life-cycle hypothesis (Hsu & Lo, 2019). Age structure would have a major effect on aggregate employment, saving and consumption. The descriptive statistics on age distribution of the urban youth respondents is demonstrated in table 4.4.

Table 4.: Summary statistics on the age of the urban youth

Descriptive	Frequency	Percentage
18-21 Years	156	39
22-25 Years	136	34
26-29 Years	88	22
30-34 Years	20	5
Total	400	100

Source: Owner's calculations.

On age distribution, 156 respondents representing 39 percent of the total respondents fall into the 18-21 years' bracket, 136 respondents or 34 percent were aged between 22-25 years, 88 respondents which represented 22 percent of the total respondents fall into the 26-29 years bracket while 20 respondents or 5 percent of the youth in the study fall into the 30-34 years' bracket. Age distribution of the urban youth is even with more than 50 percent of the urban youth respondents being between 18-29 years.

Descriptive statistics for the variables were obtained in order to understand the landscape of urban youth savings. Descriptive statistics on all factors affecting the urban youth savings in the study's model have been presented. The sample of the study included 400 urban youth respondents from Nairobi City County.

Gender being critical in this study and being a factor that may influence savings was studied. It was a critical factor in this study to ensure that the data collected was representative. Table 4.1 shows the descriptive statistics on gender.

Descriptive statistics on employment indicates that unemployment is so prevalent among the youth. Table 4.7 presents the descriptive statistics on the status of urban youth employment in Nairobi City County.

Table 5: Summary Statistics on the Employment status of the urban youth

Employment status		
Descriptive	**Frequency**	**Percentage**
Formal Employment	120	30
Informal Employment	100	25
Unemployed	180	45
Total	**400**	**100**

Source: Owner's computation from the study data

On employment, 45 percent of the respondents were unemployed, 30 percent are employed in the formal sector while 25 percent were employed in the informal sector. The high level of unemployment rate partly explains the reason behind low income levels and low savings among the urban youth.

The study evaluated the saving platforms utilized by the urban youth. These platforms included banks, chamas, Sacco's, Micro-finance institutions and mobile platforms such as Mpesa and M-shwari. The main factors

influencing the choice of saving platform included convenience, rate of return, accessibility to savings and minimum deposit requirement. Table 4.8 shows the summary statistics on the saving platform choices among the urban youth.

Table 6: Summary Statistics on the choice of Savings Platforms by the urban youth

Platform Descriptive	Frequency	Percentage
Chamas	60	15
Bank	101	25
Mpesa,Mshwari,Phone	20	5
Sacco's	150	38
Microfinance	69	17
Total	**400**	**100**

Source: Owner's calculations

On savings landscape, 38 percent saved their incomes through Saccos, 25 percent saved through banks, 17 percent saved through Microfinance institutions, 15 percent saved their incomes through Chamas while 5 percent saved through M-Shwari. Most of the urban youth respondents chose banks and Saccos due to convenience and higher rate of return.

The rate of return earned by the respondents who saved their income was categorized into three bands in an attempt to find how the rate of return influenced the level of savings. Interest rates determine how much individuals would be willing to save. It is expected that a higher rate of return would influence increased savings. Table 4.9 shows the descriptive statistics on the rate of return earned by the urban youth savers.

Table 7: Summary Statistics on Estimated Rate of Return from savings

Estimated Rate of Return Descriptive	Frequency	Percentage
1-10%	211	77
11-20%	61	22
More than 20%	3	1
Total	**400**	**100**

Source: Owner's calculations

On average 77 percent of respondents earned 1-10 percent annual rate of return, 22 percent earned between 11-20 percent annual rate of return while 1 percent earned more than 20 percent annual rate of return. From the descriptive statistics, most saving platforms offered on average an annual rate of return of 10 percent.

The level of saving among the urban youth being critical dependent variable in this study was evaluated. About 60 percent or the majority of the urban youth saved in the first band of Kshs 1-5,000 monthly. Table 4.10 shows the summary statistics on the amount saved by the urban youth.

Table 8: Summary Statistics on Savings amount

Descriptive	Frequency	Percentage
Kshs 1-5000	240	60
Kshs 5,001-10,000	76	19
Kshs 10,001-20,000	44	11
Kshs 20,001-30,000	24	6
Khs 30,001-50,000	8	2
Above Ksh 50,000	8	2
Total	**400**	**100**

Source: Owner's calculations

On the amount saved, 60 percent of the respondents saved between Kshs 1-Kshs5000, 19 percent saved between Kshs 5001-Kshs 10,000, 11 percent saved between Kshs 10, 001 to Kshs 20,000,6 percent saved between Kshs 20,001 to Kshs 30,000 while only 2 percent saved more than Kshs 30,000.

4.2 Results of Diagnostic Tests

Before the regression model was analyzed to determine the effect of employment, income, age, rate of return and number of dependants on the savings of the urban youth, various tests were done to test the fitness and the reliability of the model. Regression model was used to show the effect of independent variables on the dependent variable(savings).

Cronbach Alpha Test was employed to test the reliability and the consistency of the questionnaire items. The results of the reliability test using the Cronbach Alpha are shown in table 4.11.

Table 9: Average Reliability Statistics of Instruments

Variables	Cronbach Alpha Based on Standardized Items	No of Items
Average Reliability of Research Instruments	α.= 0.800	16

The Cronbach Alpha coefficient in this research study was .800 which means that the questionnaire items had a high reliability and internal consistency.

Source: Owner's calculations

The results of Cronbach Alpha test was .800 which meant that the questionnaire items had a high internal consistency and reliability.

The normality tests conducted included the Kolmogorov–Smirnov test and the Shapiro–Wilk test. The results on normality using Kolmogorov -Simonov are shown in table 4.12.

Table 10: Normality Test using Kolmogorov-Siminov Test

	Kolmogorov-Siminov			Shapiro-Wilk		
	Statistic	df	P-Value.	Statistic	d.f	P-Value
Level of Savings(What Amount of money do you put aside as savings each month?)	.371	404	<.001	.376	404	<.001

- *If the value p< 0.05, then the data is normally distributed research.*

- *If the value p >0.05, then the research data is not normally distributed*

Source: Owner's calculations

The normality test using Kolmogorov -Simonov test produced a p value less than 0.05 i.e. (p< 0.05). The Kolmogorov -Simonov test showed that the data had been approximately normally distributed.

A Ramsey Regression equation specification test (RESET) on the data was determined. RESET tests specifically whether explanatory variables that are non-linear explains the response variable. The RESET output is presented in table 4.13.

Table 11: Ramsey Regression Equation Specification Eror Test(RESET)

Ramsey Reset Test for Omitted Variables
H0: Model Has no omitted variables F(3,2305)=5.16 Prob>F=0.0015

Source: Owner's calculations

Specification error is likely to occur when the model is mispecified in terms of variables, error structure or functional form. The results of the test on specification errors shows that there were no omitted variables which means that the linear model is not mispecified.

The study adopted the Breusch-Pagan test for heteroscedasticity in the regression model. Table

4.14 shows the output on heteroscedasticity test.

Table 12: White Test Heteroscedasticity

Ch-Square	df	P-value.
56.007	.389	.008

Source: Owner's calculations

Linear regression model assumes that variances of the residuals are equal. This assumption is regarded as homoscedasticity (Pal & Bharati, 2019). If this assumption is not met it means that there is presence of heteroscedasticity in the residuals. The output of the tests showed the p value was .008>.005 and therefore heteroscedasticity is absent. As such the collected data was fit for regression model analysis.

The multi-collinearity test was conducted before the regression to determine if there was high correlation between the independent variables. A high correlation between the variables would be problematic in fitting the model and in making interpretation of the results. The multi- collinearity output is shown in table 4.15.

Table 13: The test for Multi-collinearity

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T-Statistic	P-value	Collinearity Tolerance	Statistics VIF
	B	Std. Error	Beta				
(Constant)	-264.006	3592.139		-.268	.729		
Monthly Income	951.968	769.313	.680	8.847	.011	.488	2.049
Occupation	818.653	738.518	.638	8.109	.013	.498	2.008
Number of Children	-779.250	560.851	-.617	-7.746	.022	.555	1.801
Age Bracket	-525.699	1175.261	-.504	-4.430	.047	.798	1.252
Education Level	-499.880	642.343	-.411	-3.155	.057	.515	1.942
Estimated Rate of Return	646.119	758.090	.605	6.061	.032	.436	2.291
Estimated Charges	581.286	821.610	.435	5.438	.037	.478	2.094

a. Dependent Variable: Youth Savings

Source: Owner's calculations (2023)

The results of the test showed that all the variables had no multi-collinearity. The VIF for all explanatory variables was below 4 and therefore all the variables showed no multi-collinearity. Ideally a VIF above 4 indicates that multi-collinearity exist and therefore further investigation is required (Gunst & Mason, 2018). A VIF of more than 10 shows significant multi-collinearity that need to be corrected (Pal & Bharati, 2019). Multi-collinearity would have been a problem since it would have undermined the significance of the independent variables.

The coefficient of determination R^2 that helps explain how well the model predicts the outcome and the auto-colleration test were determined. The autocorrelation test done was the Durbin- Watson test. Presence of autocorrelation may be a serious problem as it may result to unbiased, inefficient and inconsistent estimators (Pal & Bharati, 2019). Table 4.16 shows the results of correlation coefficient and autocorrelation test using Durbin-Watson.

Table 14: Model Summary on Correlation Coefficient and Autocorrelation

Model	R	R-Square	Adjusted Rs Square	Std.Error of the Estimate	Durbin-Watson
	.849	.721	.720	9026.02191	2.150

Predictors: Constant, age, occupations, income, education level, rate of return, number of dependants, estimated charges

Dependent Variable: Savings amount

Source: Owner's calculations

A value of 0.720 signified that the explanatory variables in the statistical model offered a 72 percent explanation of the variance in the dependent variable which is the savings made by the urban youth. On the other hand, Durbin Watson Test showed that there was less autocorrelation and the Durbin-Watson value of 2.150 was close to the middle value of 2.0.

4.3 The Regression Model

The regression model output showed the effect of the explanatory variable on the dependent variable. Ideally, the model's coefficient shows each variable's contribution on the saving levels of the urban youth. The results show that employment had significant effect on savings. Other factors such as the number of dependants and the estimated rate of return also influenced savings of the urban youth positively. Education level, age and number of dependants affected urban youth savings negatively. Table 4.17 presents the output of the regression model using least squares method.

5.0 Conclusion and Recommendations

5.0 Conclusion

The study found that, 45 percent of the respondents were unemployed, 30 percent are employed in the formal sector while 25 percent were employed in the informal sector. Thus the study concluding that the high level of unemployment rate partly explains the reason behind low income levels and low savings among the urban youth. Also all factors evaluated affected savings at varying rates. These factors included the number of dependants, , employment, rate of return, transaction costs and age. Family size or the number of dependants and education level had a negative effect on the level of savings while income, employment and rate of return affected the urban youth level of savings positively. Age had a negative effect on savings as savings decreased with age. Past studies on the relationship between age and saving behavior have convinced most policymakers and economists that aging would lower saving rate to some extent though the presence of this change is still in question.

5.2Recommendations from this study

The government should promote job creation both in the formal and informal sector. In the informal sector which is characterized by low and irregular incomes, the government could improve the quality of pay for the existing jobs, increase levels of productivity in the informal sector and encourage growth through the provision of right infrastructure such as road networks, security, water and electricity. The government should also provide financial support through creation of funds to support growing job opportunities. Additionally, the government should create safe and healthy working environment through clear guidelines and rules on informal sector engagement. In the formal sector, there is need to have a long commitment to job creation, on-job training, promotion and improving the labour markets governance in order to boost the incomes of the employed youth and create more job opportunities for the vast unemployed youth.

Age having a negative effect on savings calls for the need by financial institutions and the government through relevant ministries to provide financial education at an early age so as to incentivize and inculcate the youth into saving culture. By providing adequate financial education to the youth, they would likely become more attuned to better saving behavior. Imparting better financial skills including planning would help the youth in financial decisions particularly for those with more dependants as the number of dependants significantly reduced the level of savings among the youth. Youth that are adequately financially literate would be more likely to spend less income, create some emergency funds and open savings accounts as compared to those with lower levels.

5.2Recommendations for further studies

The paper focused only on effect of Employment on the Urban Youth Savings: A Case Study of Nairobi City County, Kenya, therefore, there is a need for another study to be done focusing on other prospects that could influence youth savings in urban setting.

List of abbreviations

APC-Average Propensity to Consume

ASCAs- Accumulating Savings and Credit Associations BLCT-Behavioral Life Cycle Theory

GDP-Gross Domestic Product

KNBS-Kenya National
Bureau of Statistics LIH-
Lifecycle Income
Hypothesis
MPC-Marginal
Propensity to
Consume MFIs-
Micro-Finance
Institutions
ROSCA- Rotating Savings and Credit
Associations SACCOs- Savings and
Credit Co-Operative Society FFI-
Formal Financial Institutions
IFI-Informal
financial
institutions
MU-Marginal
Utility
SFI-Semi-Informal financial institution.

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