

 ISSN NO. 2320-5407	Journal Homepage: -www.journalijar.com INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR) Article DOI:10.21474/IJAR01/12189 DOI URL: http://dx.doi.org/10.21474/IJAR01/12189	 INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR) ISSN 2320-5407 Journal Homepage: http://www.journalijar.com Journal DOI:10.21474/IJAR01
---	---	---

RESEARCH ARTICLE

THE INFLUENCE OF FINANCIAL PLANNING ON THE RELATIONSHIP BETWEEN HOUSEHOLD INCOME AND LEVEL OF SAVING IN TANZANIA

Warren Tibesigwa¹, Will Kaberuka¹, Joanina Ayebare² and Ally Ndeshiuta Morris³

1. Department of Management Science, Makerere University Business School, Kampala, Uganda.
2. Department of Computer Science and Engineering, Makerere University Business School, Kampala, Uganda.
3. PhD student, Department of General Management, University of Dar es Salaam Business School, Dar es Salaam, Tanzania.

Manuscript Info

Manuscript History

Received: 20 October 2020

Final Accepted: 24 November 2020

Published: December 2020

Key words:-

Household, Income, Financial Planning, Saving

Abstract

There are many studies on the relationship between household income and saving though very little is known about the influence of financial planning on the relationship between household income and saving. This paper examined the moderating effect of financial planning on the relationship between household income and saving in Tanzania. Based on cross-sectional secondary data (Finscope data, 2017) that was collected using multistage sampling from 9457 respondents, descriptive, correlation, regression and moderation effect were performed to analyze the data. The findings indicate that household income and interaction effects have a positive relationship with level of saving. Finally, regression results show that household income and financial planning have a positive significant effect on household saving levels and that financial planning has a positive moderating effect on the relationship between household income and level of saving. From these study results, it is recommended that the government of Tanzania through the ministry of community development, gender and children should introduce financial awareness programs to the communities in order for the people to realize the need of financial planning and hence improve their saving. Further more the government through the ministry of education and vocational training should introduce financial awareness in the school curriculum so that citizens learn how to plan for financial matters at early stages.

Copy Right, IJAR, 2020,. All rights reserved.

Introduction:-

Achieving a high and stable economic growth rate is an important issue for every country since economic growth is crucial for economic development (Reed et al, 2014). The authors in their study further highlight that saving is key to economic growth. Also, According to Adami et al (2018) saving is an alternative means to accumulate assets and the capacity to save is one of the main vehicles of social mobility and of enhancing future income-earning possibilities. Upender and Reddy (2007) in their study, highlighted that household saving contributes a lion's share of gross saving in the biggest economies such as China, Japan, USA, and India and hence contributing to their economic development.

Corresponding Author:- Warren Tibesigwa

Address:- Department of Management Science, Makerere University Business School, Kampala, Uganda.

According to Asare et al (2018) in a study done on the Africa's economies, saving has a positive impact on the economic growth of a country hence it is a very important aspect that economies need to take into serious account if they want to compete globally. The importance of saving is further highlighted by Brunie (2017) in his research entitled Economic benefits of savings groups in rural Mozambique which found out that saving through saving groups (SGs) allowed households to bridge seasonal food consumption gaps and meet cash needs during crises and accumulated savings supported asset purchases. Jagadeesh (2015) in his study on the existence of a long run relationship between Gross Domestic Product and Gross Domestic savings in Botswana found out that there is significant relationship between Savings and Economic growth.

There is a wide range of Saving rates around the world, for instance on average, East Asia saves more than 30 percent of gross national disposable income (GNDI), while Sub-Saharan Africa saves less than 15 percent (Loayza et al 2000). The authors further reiterate that, regional differences have been rising and over the past three decades saving rates have doubled in East Asia and stagnated in Sub-Saharan Africa and in Latin America and the Caribbean. According to Grigoli et al (2018), Gross domestic savings in Africa averaged only 8 percent of GDP in the 1980s, compared to 23 percent for Southeast Asia and 35 percent in the Newly Industrialized Economies. The authors also highlighted that apart from being generally low, saving rates in most of Africa have shown consistent decline over the last thirty years. Domestic savings in many developing countries in Africa for example Kenya have remained low despite the fact that household savings contribute a sizeable share of domestic and national savings in both industrial and developing countries (Njenga et al, 2018). A study carried out by Lubawa et al (2018) showed that there are low savings capability in Tanzania for most households arising from low incomes due to over reliance on subsistence agriculture. However, Heckman and Hanna (2015) affirms that there are considerable number of researches that disapprove the commonly believed view that many rural households in less developed countries are too poor to save. Saving by rural households has been confirmed beyond doubt (Steinert et al, 2018)

Furthermore, Mariyah et al (2018) argues that the level and power to save depends on various factors such as income, interest rates, fiscal factors as well as psychological, cultural and social factors. These social and psychological factors contribute to the motivation of individuals to judge and plan for their incomes in relation to their expenditure patterns and savings. In this case financial planning is reflected in terms of financing ability for social events, alternative financing for financial obligations, financing ability in old age and financing for future purchase. Hence planning has an influence on the relationship between household income and the saving. This study will therefore aim at testing the moderation effect of the planning on the relationship between household income and saving.

Literature Review:-

Theoretical Literature:

The Keynesian Theory of Absolute Income Hypothesis:

Keynes in his theory argues that consumption and savings are an increasing function of absolute/disposable income (Keynes, 1936). Generally, the Keynesian saving function takes a form of linear function with constant marginal propensity to save (MPS) which is expected to be constant and positive but less than unity, so that higher income leads to higher savings.

This theory has been used because it captures the relationship between the main concepts of the study that is income and saving hence providing a basis for their relationship.

Life-Cycle Hypothesis theory:

Ando and Modigliani (1963) hypothesis theory explains the consumption pattern of an individual in a specified period of time. According to this hypothesis, individuals seek to maintain their standard of consumption throughout their lifetime period such that a proportion of their income earned during their working years has to be saved in order to meet their consumption needs after retirement and to repay financial obligations. This theory also cuts across consumption and income in relation to saving and therefore complements the Keynesian theory to highlight the important role of household income to the saving levels.

Economic Theory: Individual-oriented perspectives:

This is a group of theories including neoclassical economics, economic psychology and behavioral economics theories, but for the purpose of this study, neoclassical economics perspective is adopted. In this theory, people behave in a rational manner and have perfect knowledge. The neoclassical perspective assumes that personality

characteristics and attitudinal variables affect saving and asset accumulation Marshal (1961). Generally, the economic theory creates a belief that a person who is good planner will consume less in the current period and save a portion of the current income for future consumption since there is uncertainty associated with future income. The theory explains the role of financial planning to saving levels of the household in the saving model.

Empirical Literature:

Level of saving:

In economics saving is defined as the difference between disposable income and consumption expenditures whether at household or business level (Antwi and Chagwiza, 2018). Beckmann et al. (2013) considers saving as a key macroeconomic variable to economic growth since it is a potential source of investment. Saving is essential to the health of economies and households, yet relatively little studies investigated saving levels among the urban working class in the nineteenth century (Bodenhorn, 2018). Bodenhorn in his study used survey technique in data collection and the analysis which revealed sophisticated saving levels in consistence with life-cycle and precautionary theories. This justifies the saving levels as being influenced by the precautionary motives and old age financial security. The author further highlight that younger households saved less than older households giving a clue of the need for old age income sustenance.

House Hold Income:

According to Mamun et al. (2018) household income refers to “the average monthly income acquired by all members of the household from all possible sources in the last 12 months.” Al-Mamun and Mazumder (2015) Considered household income as one of the indicators of household overall economic security which in this case is also a subset of planning on the levels of saving. The authors are also of the view that income is difficult to measure accurately and reliably because it is in a continuous flow and it tends to differ within or between time periods. However, most of the impact studies and for the purpose of this study household income is measured based on respondents’ recall of relevant data to solve this problem.

Level of Income and Saving: Antwi and Chagwiza (2018) in their study revealed that organization or household with a health income have a higher propensity of saving. Chamo et al. (2013) in their study consider the fact that the increase in household savings has contributed to a rising national saving rate, which they regard in the case of China to be among the highest in the world. The authors reiterated that an increase in transitory income variance causes younger people (between 20 and 30 years) to save more in order to adjust their buffer stock to the riskier environment thereafter the rate will start declining over time. Also Alvarez-Cuadrado et al. (2012) in their study on income inequality and saving indicated a presence of positive relationship between level of income and saving. All these studies show the presence of direct positive relationship between the level of income and the levels of saving.

Number of Income Sources: Senadza (2014) in his study classified Household income sources into six categories, namely, on-farm income (income earned by household from its own farm), farm wage income, non-farm self-employment income, non-farm wage employment income, remittance income and other income. Data also used in this study identifies household income of the households to be in one or more of these categories. In line with this, Antwi and Chagwiza (2018) comment that when employment opportunities are created, it leads to higher income generation which could translate to higher savings within households and hence the indication of the positive relationship between number of sources of income and the levels of saving. It can therefore be hypothesized that household incomes generally influence the level of household savings in Tanzania.

H₁:

There is a significant effect of household incomes on the level of household savings

Financial Planning:

Individual’s decision to save is affected by the temptation to consume in the present (Gigerenzer, 2004). This finding indicates that individuals with no planning culture are likely to spend their income haphazardly hence remaining with little or no money left for saving. Paule-Paludkiewicz et al. (2016) on the other hand have identified the significant effect of culture on the saving behavior of households which is a concept deviant from the main theories adopted for the purpose of this study.

Planning for Ability to meet Future Expenses/Purchases: Antwi and Chagwiza (2018) considered savings as an important element for hedging against shocks and emergencies. These scholars associate the concept with the future

purchasing power of the farming which is one of the major considerations for saving to cater for future purchase. Karlan et al. (2014) in their study have highlighted some of the important welfare consequences of under saving such as variable consumption, low resilience to shocks and foregone profitable investments. Gjertson (2016) in their study consider saving to be acting as buffer in case of emergencies eventually complementing to the motives for saving. The focus of most of these studies was on project level consisting of several groups therefore it is of paramount importance to shift the focus to the household level.

The fact of future uncertainties has compelled numerous governments to gradually pushing individuals to save for future events through the introduction of supplemental contributory pension schemes for the purpose of facilitating retirement savings (Salleh, 2015). Salleh (2015) further highlighted some of the reasons for saving as the initiation and the maintenance of the children/grandchildren's education. This motive partly gives a clear picture about the concept of financing for future obligations Isaga (2018). This signifies that planning for future uncertainties play a greater role in the motive to saving by individuals and the households.

Planning for Ability to Pay for social Events: Chamon et al. (2013) calibrated a buffer-stock savings model to obtain quantitative estimates of the impact of rising household-specific income uncertainty as well as another shock to household income. The authors' calibrations suggest that rising income uncertainty and pension reforms lead younger and older households, respectively, to raise their saving rates significantly. The low saving rate presents potential problems in terms of long-term financial insecurity which also influences short term concerns over the ability of households to meet unexpected expenses like social events related to their present needs (Babiarz and Robb 2014). From Chamon et al. (2013) point of view, the same argument can be extended to justify on the consequences of income uncertainties and shocks when it comes to financing for social events. Therefore, this is clear indication that planning for ability to finance social events has a positive influence on the amount of money that can be saved.

Planning for Financial Ability in Old age: Adami et al (2018) also conducted a study on long-term savings accumulation in the UK. The authors used cross-sectional information to compare long-term saving amongst different ethnic groups with the control group, the native population. The authors further applied the life-cycle framework theoretical model to explain saving profiles. The model was specifically used to examine changes in income and saving patterns over the life-course. The theory advocates that individuals make savings decisions to smoothen consumption over different phases of their life-cycle. The findings further indicate that socio-economic factors are key elements in determining whether individuals plan for retirement if factors are controlled for the differences in saving behaviors between ethnic minorities and the control population decrease considerably.

Tavor et al (2016) in their study examined the decision-making process involved in saving for retirement in comparison with decision-making processes regarding other financial products (such as loans and savings plans) and the real products (such as a car or a home). In their study, out of the 107 respondents, 95 per cent save for retirement indicating high sensitivity to old age income sustenance in US. Hanna et al (2016) revealed the fact that the household should set its spending in each future period so that it will have enough wealth when it reaches retirement to meet its goal. John (2017) also recapitulates on the fact that a commitment to fixed regular savings deposits can help individuals to achieve the welfare-maximizing level of savings. These arguments give evidence that planning for welfare of the future and old age financing has a positive effect on saving levels of the households.

Therefore it can be hypothesized that planning for finances generally influences the level of savings of an individual and a household.

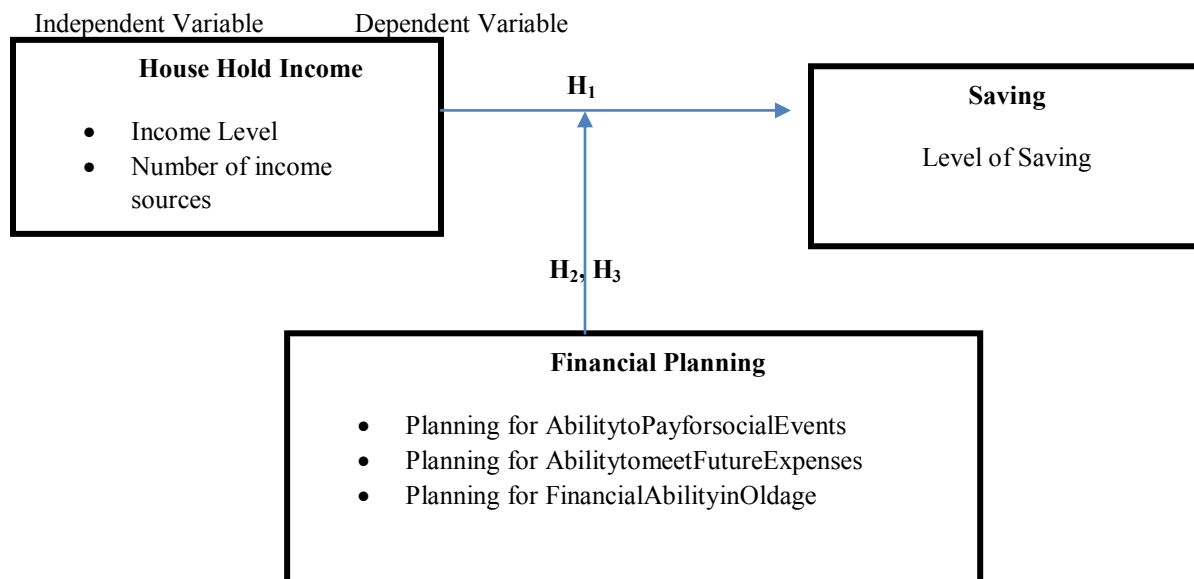
H₂:

Financial planning significantly influences household level of savings

H₃:

Financial planning significantly moderates the relationship between household incomes and level of savings

Conceptual framework showing the relationship between household incomes, financial planning and level of saving



Moderator

Source: Keynesian theory of absolute income hypothesis, neoclassical economic theory and Life-Cycle Hypothesis theory.

Methodology:-

Type of Data and Sampling:

This study is a cross-sectional research aimed at establishing the effect of financial planning on the relationship between household income and savings of the people of Tanzania. The population of the study covers all the regions in the country. Secondary data (FinScope data for Tanzania, 2017) was used in this study. FinScope is a nationally representative survey that provides an overview of the financial behavior of Tanzanian adults (i.e. individuals 16 years or older) in terms of how they generate income and how they manage their money.

A multi-stage stratified sampling approach was used to achieve a representative sample of individuals aged 16 years and older (stratified sampling to obtain EAs-Enumeration Areas followed by simple random sampling to obtain the households and the members to respond to the questionnaires). The sample frame was based on the 2012 Tanzania Population and Housing Census. The sampling design was done by National Bureau of Statistics in consultation with the Technical Committee and this enhanced the credibility and reliability of the data that was collected. A representative sample of 9459 was used to collect data about the financial inclusion in Tanzania.

This data was collected from April to July 2017 and this shows how recent and dependable it is about the financial inclusion in Tanzania. The data was collected by the use of the face to face structured questionnaire as a data collection tool.

Variables used in this study:

Household level of saving was used as the dependent variable in this study. This refers to the level of saving or the total amount of money that the household is able to put aside for future use from the incomes that they earn. This variable captures the amount of money saved monthly by the households which was eventually measured on a continuous scale. The independent variable was household income. This variable refers to the aggregate amount and level of income that has been captured monthly. The household income was used as an indicator of household saving and was measured on a continuous scale. Financial planning on the other hand has been used as a moderating factor of the relationship between household income and saving. Financial planning variable has been considered to be measured by the ability to pay for the old age obligations, ability to pay for future expenses and ability to pay for social events. The planning variable was measured on a binary scale where "1" represented high planning and "0" represented low planning.

The study also considered other variables such as gender, marital status, age, education which are supposed to affect household's income and their level of saving (Belkeet al., 2015). In this study cross tabulation of these variables with the variable saving was done to ascertain their influence on the saving.

Age:

This is a variable was used to refer to age of the head of the household. This variable has been measured as a continuous variable in terms of years of the household head. The age of the person has been thought to also influence the amount of savings that the person is able to save. Young people are always thought to save less than the older ones (Bodenhorn, 2018) because most of their incomes are diverted to leisure and also have less experience on their jobs and hence their salary scales are low. Furthermore, the young people have to establish themselves which explains their low ability to save.

Gender:

This is variable that has been used in this study to refer to the sex of the household head. This variable has been measured as a binary variable with 1 representing Male and 2 representing Female. Gender has been thought to influence the amount of saving that the individual household head is able to save in a sense that the level of saving of females are significantly different from that of males.

Level of Education:

This variable has been used in this study to mean the range of education level that the household head have attained. This variable was measured also a binary variable with 1 representing those below secondary and 2 representing those who completed secondary and above. This variable has been used because it is always thought that highly educated people save more than those who have less education levels because the highly educated know the impact of future financial crisis and also have better financial planning skills.

Estimation Methods:

A number of methods have been employed to analyze the relationships and underlying characteristics of the study variables.

Cross tabulation:

Has been used to obtain the underlying characteristics of the variables and the within group variations across or between any two variables. For example, this has been used to check if the differences in gender has got a corresponding difference in the amount of money that is saved. It has also been used to check if different planning levels have an impact on the amount of money saved.

Correlation analysis:

Has been used to check for the correlation of the variables under study. The correlation coefficients and their significance have been used to ensure that there is no multicollinearity among independent variables and ensure that independent variables are significantly correlated to the dependent variables if they are to be possible predictors.

Regression:

Was used to check for the existence of the linear relationship between the dependent variable and the set of independent variables used in the study. This was checked use of F-statistic and its significance. It has also been used to check the percentage variation in the dependent variable (savings) that is explained by the independent variables in the study by observing the R^2 of the regression model. Furthermore, this method has been used to check the magnitude of the direction of the effect of the independent variables on the dependent variable by observing the regression model coefficients and the corresponding significances.

Interaction effect testing for moderation:

Was used to check for the moderation effect of financial planning on the relationship between income and saving. This has been done by checking the significance of the effect of the product of household income and financial planning on the level of saving.

Presentation and Discussion of the Results:-

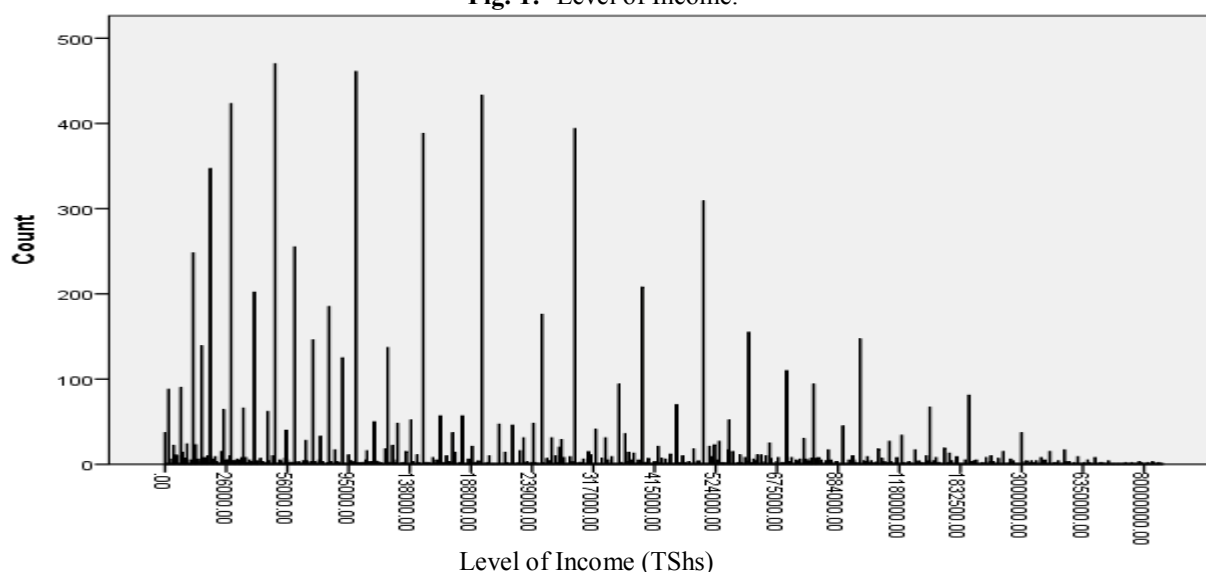
Descriptive statistics:

Table 1:- Number of Income Sources.

Number of Income Sources	Frequency	Percent
1.00	6616	69.9
2.00	2523	26.7
3.00	302	3.2
4.00	14	0.1
5.00	4	0.0
Total	9459	100.0

Table 1 shows the households' number of income sources. Most households (69.9%) rely only on one source of income while about 3% rely on more than three sources which could be one of the reasons for their low savings as depicted in Table 2 which shows that household savings are positively skewed. This is in line with Senadza (2014) and Antwi&Chagwiza (2018) who found out that the number of income sources are positively related to the level of saving.

Fig. 1:- Level of Income.



Income levels and level of savings are usually considered to be related, a fact which is not far from the findings of this study. In this study, it has been identified that the amount of money earned by the household are low which explains the low savings as depicted in figure 1. Also, the findings are in line with existing literature on the relationship of income and saving like in the case of Antwi and Chagwiza (2018) who found out that household with a health income have a higher propensity of saving and Alvarez-Cuadrado et al. (2012) who highlighted presence of a positive relationship between level of income and saving. Furthermore, the income-saving relationship has also been clearly explained in Keynes theory. From the agreement of the findings in combination with theoretical and empirical studies, it can be concluded that household income positively influences the level of savings.

Table 2:- Skewness and Kurtosis of Household Incomes and Level of Saving.

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Household Income (Tshs)	9459	46.180	.025	2706.592	.050
Level of Saving (Tshs)	9459	55.991	.025	3471.190	.050

African economies of which the Tanzanian economy belongs are mostly characterized by people with low incomes. The skewed data in table 2 indicated that few households exhibit a significantly high level of income from which some amounts could be put aside for saving. Furthermore, the heavy tails depicted by a large positive kurtosis value in table 2 shows that the income data is not normally distributed. The positively skewed data in table 2 (coefficient of skewness=46) lies outside the range $-3 < \text{Coefficient of skewness} < +3$ (Hair et al, 2014). According to Hair et

al,(2014), the leptokurtic nature of the tails of the distributions of the household incomes and level of savings indicated by the kurtosis of 2706 and 3471 in table 2 further suggests that these series are not normally distributed. This therefore shows that household income and level of saving of the largest portion of the population is low with few people having reasonably high saving and incomes. These results suggest that the low levels of savings of the household in Tanzania are due to their low household incomes which concurs with the studies of Senadza (2014), Antwi and Chagwiza (2018) and Alvarez-Cuadrado et al. (2012). Therefore, household incomes positively influence the level of household savings in Tanzania.

Cross tabulation results:

Table 3:- Level of Education and Saving Crosstabulation.

		Saving Groups		Total
		Low saving group	High Saving Group	
Level of Education	Below Secondary	8120 (86%)	140 (2%)	8260 (88%)
	Secondary and Above	1167 (12%)	32 (0%)	1199 (12%)
Total		9287 (98%)	172 (2%)	9459

It is paramount to check the influence of level of education on the level of saving of households because sometimes the education level of an individual can have an influence on their perception of saving. For instance, table 3 representing the crosstabulations of the different levels of education and the saving levels shows that the biggest percent of people in Tanzania (88%) are below secondary level of education while those who have education level above secondary account for only 12%. The results concur with the general characteristics of levels of education just like most African countries. It is also evident that almost all the people (98%) have very low saving with only 2% of the population showing some evidence of high saving which could be because the biggest category of lowly educated people are the ones who take up low category jobs and some of them are not employed at all. Therefore, low savings are attributed to the low education levels of the majority of the people in Tanzania which implies that the government needs to invest a lot in education of its people if it's to address the problem of low levels of savings.

Table 4:- Gender of head of household and Saving Crosstabulation.

		Saving Groups		Total
		Low saving group	High Saving Group	
Gender of head of household	Male	4020	99	4119 (44%)
	Female	5267	73	5340 (56%)
Total		9287 (98%)	172 (2%)	9459

Gender is one of the personal characteristics that are thought to influence the level of saving of an individual and household. In most African household settings men are thought to have positive attitude towards saving than females because they have an obligation to provide and cater for their families. Results in table 4 show that most households in Tanzania (56%) are headed by females and also 98% of the households have very low savings. This shows a significant effect of gender on the level of saving of the households in Tanzania. Most households that are headed by males have got a higher saving than those headed by females as also illustrated by table 3. This could be because of the cultural beliefs in Tanzania that saving and working is always a responsibility of the males.

Table 5:- Age and Saving Crosstabulation.

		Saving Groups		Total
		Low saving group	High Saving Group	
Age Groups	Below 30 years	3812	55	3867
	Between 30 and 50 years	3546	82	3628
	Above 50 years	1929	35	1964
Total		9287	172	9459

Table 5 shows that household heads who are below 30 years of age have very low savings which is in line with (Bodenhorn, 2018). This could be because young people have low experience in jobs and therefore their incomes are low in relation to their low pay category. Also, the people in this group mostly have a high affinity for leisure activities that consume most of their incomes hence making them to have low savings. However, this contradicts with Chagwiza (2018) who in his study asserted that younger people save more. Furthermore, Table 6 shows that actually the people below 30 years have low planning levels and this could also be explaining their low savings. High savings are evidenced in age category (between 30 and 50) in line with Chamo et al. (2013) and this could be because people have enough experience to enhance their incomes but also are in relatively higher pay categories hence saving more. Furthermore, this age category is likely to contain people who have settled families and hence the gross household incomes from all the sources increases and hence allowing people to save more.

Table 6:- Age and financial planning Cross tabulation.

		Financial planning Groups		Total
		Low Planning	High Planning	
Age Groups	Below 30 years	2148	1719	3867
	Between 30 and 50 years	1805	1823	3628
	Above 50 years	777	1187	1964
Total		4730	4729	9459

Table 6 shows that planning is highest for household heads who are between 30 to 50 years of age. This is because most of these people have families and they need to account for most of their incomes. Therefore, the savings in this category also increase as seen in table 5. Accordingly, the government needs to introduce financial planning culture through trainings to people of different categories in order to improve their saving habits and hence improve level of saving.

The analysis of the cross tabulation of the control variables with savings has given an inner understanding of some of the underlying factors that could explain the variation in the level of savings of the Tanzanian households. A more clear explanation for the variation of the saving levels is given by the hypothesis testing of the existence of significant relationships between the dependent and independent variables in the following section.

Table 7:- Correlation results.

	Gender	Educ Level	Age	Planning	Household Income	Interaction term	Savings
Gender	1						
Educ Level	-.067** .000	1					
Age	-.055** .000	-.155** .000	1				
Planning	.099** .000	-.143** .000	.195** .000	1			
Household Income	-.016 .124	-.006 .551	.014 .168	.013 .195	1		
Interaction term	-.021* .037	.001 .934	.009 .358	.004 .676	.112** .000	1	
Savings	-.029** .005	-.003 .786	.004 .693	.023* .024	.278** 0.000	0.435** .000	1

** . Correlation is significant at the 0.01 level (2-tailed). * . Correlation is significant at the 0.05 level (2-tailed).

Correlation results in table 7 show that there is a significant low correlation among the independent variables (Gender, Education level, Age, Household Incomes and Planning) because the pairwise correlation of these variables are all less than 0.50 which is very much below the cutoff of very strong correlation of 80% as stated by Hair et al. (2014). This therefore show that the independent variables are actually independent and hence no multicollinearity. Furthermore, there is evidence of a strong significant positive correlation ($r=.278^{**}$, $p=0.000$) between household income and saving which makes sense because the actual practice of saving relies largely on a person's disposable income. This finding is also in line with the studies by Senadza (2014), Antwi and Chagwiza (2018) and Alvarez-Cuadrado et al. (2012). Table 7 also shows a significant positive correlation ($r=.023^{*}$, $p=.024$) between planning and saving among the people of Tanzania which could be due to the fact that planning enables people to rationally allocate resources. The evidence of the impact of financial planning on saving is also highlighted by Gigerenzer, (2004). From the evidence given by the finding, empirical studies and Neoclassical Economics Theory, increase in household income and planning increases the level of saving. Gender is the only control variable that shows a significant correlation with savings according to table 6 and table 3. From cross tabulation results in table 4, men save more than women and hence men headed households are more likely to have more savings than other household headed by women in Tanzania.

Table 8:- Regression Model results.

Model	Unstandardized coefficients	Standardized Coefficients	t	Sig.
		Beta		
(Constant)	212569.618		3.681	.000
Planning	568404.006	.020	2.256	.024
Household Income (Tshs)	.135	.232	25.749	.000
Interaction term (Planning*Household Income)	1.579	.409	45.424	.000
Gender of head of household		-.019	-.079	.038

Dependent Variable: Saving(Tshs)

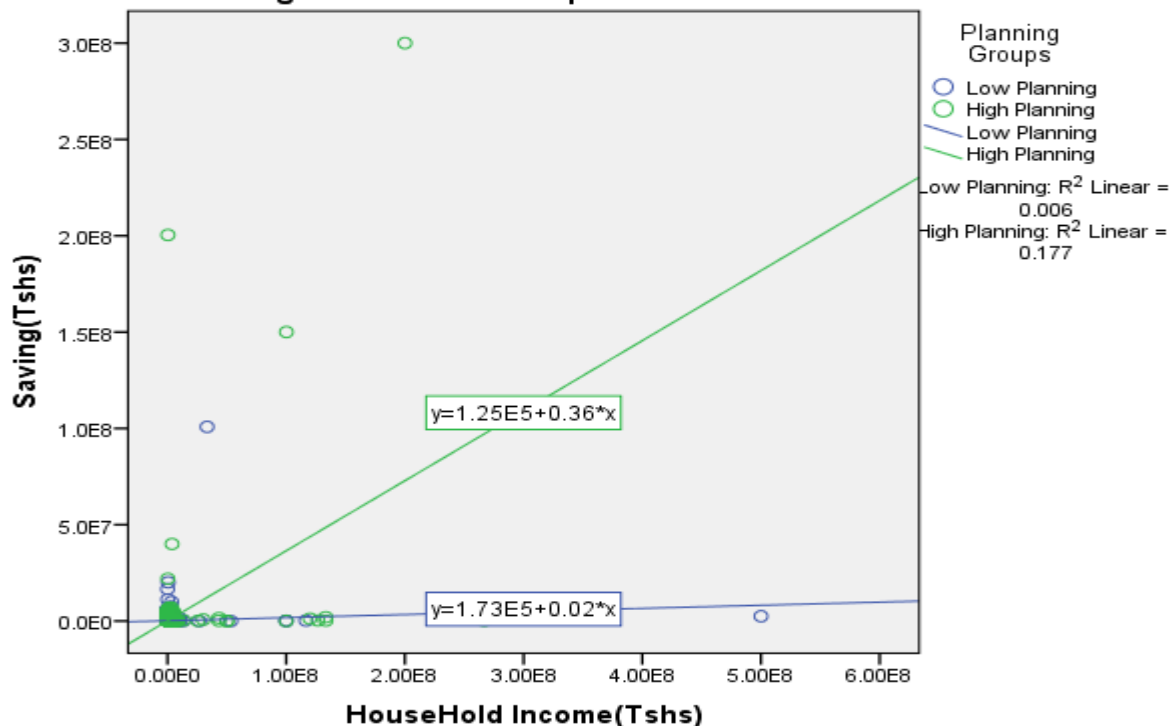
Multiple regression analysis was done for the significant control variable (gender), the independent variables (household income and planning), the interaction term (Planning*Household Income) and the dependent variable (Level of saving) and the model results are shown in table 8. The regression model yielded a significant F -statistic ($F=1012.6$, $p=0.000$) which confirms the existence of linear relationship between household income, planning, interaction term, gender and Level of Saving. Furthermore, the model indicated the coefficient of determination ($R^2=0.244$) which shows that 24.4% of the variation in the level of saving is explained by gender, household income, planning and interaction term and the remaining 75.6% is due to other dynamic factors that are not yet considered for example environmental changes, political climates etc which all can affect income and saving of people in Tanzania. From table 8, Standardized beta coefficients show that the most important predictor of Level of saving is household income ($\beta=0.232$) and then followed by planning ($\beta=0.020$) because the larger the beta coefficient the more important the explanatory variable (Hair et al, 2014). These results show that household income positively and significantly affects level of saving because p value is less than 0.05 therefore we accept H_1 : household income significantly affects the level of saving and this is in line with the findings of Antwi and Chagwiza (2018). Furthermore, financial planning positively and significantly affects the level of saving because of its $\beta=0.232$ and $p=0.00$ and this is in line with the findings of Gigerenzer, (2004) hence the hypothesis H_2 is accepted. Table 8 also shows that planning positively affects the relationship between household income and level of saving because the beta value of the interaction term is positive and significant and this confirms the acceptance of hypothesis H_3 hence planning positively influences the relationship between household income and level of saving in Tanzania.

The regression model used in this study is of the form $Y = \beta_0 + \beta_1 X + \beta_2 M + \beta_3 XM$ (Pokhariyal, 2019) where Y is the Level of saving, X is the Household Income, M is the moderator (financial planning) and XM is the product of Household Income and financial planning. The model results show $Y = 212570 + 0.135X + 568404M + 1.579XM$ as the optimal regression model for the variables in this study.

Results from table 8 identified that β_3 the coefficient of XM is positive and significant confirming the acceptance of the hypothesis H_3 hence planning moderates the relationship between Household Income and Level of saving. These results were also confirmed by the scatter plot in figure 2 which presents the relationship between levels of savings and household incomes at both high and low planning levels. The use of scatter plots to show moderation is in line with Tang et al., (2009) who identify a more analytic framework for moderation analysis beyond analytic interactions.

Fig 2:- Scatter Plot showing the Moderation effect.

A Scatter plot showing showing the Interaction Effect (Moderation Effect) of Financial Planning on the relationship between Household Income and Saving



Source: Excel plot of saving levels against Household incomes at both levels of financial planning

The figure 2 shows that in presence of financial planning, the coefficient of determination is 0.177 which gives Pearson correlation coefficient of 0.42. Therefore, if the household heads use their financial planning skills, the household incomes will positively correlate to their saving by 0.42. In the presence of low or no planning, the incomes are less correlated to savings by 0.077. The results indicated in figure 2 concur with the findings of (Gigerenzer, 2004) who found out that individuals with no financial planning culture are likely to spend their income haphazardly hence remaining with little or no money left for saving. Therefore, financial planning positively moderates the relationship between household incomes and the level of savings in Tanzania.

Conclusion and Recommendations:-

This study sought to investigate the influence of financial planning on the relationship between household income and savings of the households in Tanzania. Keynesian Theory and Life-Cycle Hypothesis theory were used to provide evidence of the relationship between household income and level of saving whereas Neoclassical Economics Theory was used to give the planning-saving relationship. Based on cross-sectional secondary data, descriptive, correlation, regression and moderation effect were performed to analyze the data. Results have shown both household income and financial planning are positive predictors of savings which is also in line with most of the literature reviewed. Findings also show positive relationship between future uncertainties and the motive to household saving which agrees with the postulates of Neoclassic Economic Theory. Furthermore, results have indicated that financial planning positively influence the relationship between household income and saving which was the main gap that has been bridged in this study.

The data collected on all the households in Tanzania was holistically analyzed without demarcations for rural or urban households assuming that they share common characteristics. However, saving levels and planning cultures in rural and urban households may likely be different which is one of the limitations of this study. Furthermore, a longitudinal study could be conducted in the future to show the presence of dynamics between the relationship of household income and saving. This is because there is a likelihood of changes in saving pattern with time hence over reliance on particular period may render inconclusive results.

Finally, the government of Tanzania should involve the citizen in financial planning and management training through the ministry of community development, gender and children by introducing both rural and urban financial literacy training opportunities in order for the people to realize the need of planning. This will help the individuals up to household and national level to improve their saving. Furthermore, the government through the ministry of education and vocational training should introduce financial awareness in the school curriculums so that citizens learn how to plan for financial matters at early stages.

Research limitations:

The data was collected on all the households in Tanzania without demarcating whether it was for rural household or urban household. Saving cultures and financial planning levels in rural households and urban households are likely to be different. Analysing saving levels without taking into consideration the two social strata was a limitation of this research.

References:-

1. Adami, R., Carosi, A., & Sharma, A. (2018). Retirement saving in the UK: a life-cycle analysis. *Studies in Economics and Finance*, 35(1), 109-136.)
2. Al-Mamun, A., & Mazumder, M. N. H. (2015). Impact of microcredit on income, poverty, and economic vulnerability in Peninsular Malaysia. *Development in practice*, 25(3), 333-346.
3. Ando, A., & Modigliani, F. (1963). The "life cycle" hypothesis of saving: Aggregate implications and tests. *The American economic review*, 53(1), 55-84
4. Antwi, M., & Chagwiza, C. (2018). Factors influencing savings among land reform beneficiaries in South Africa. *International Journal of Social Economics*.
5. Asare, E., Segarra, E., Gertrude, N., & Asiseh, F. (2018). Explaining the Saving Behavior of Households' in Ethiopia, Africa. *Applied Economics and Finance*, 5(2), 143-151.
6. Babiarz, P., & Robb, C. A. (2014). Financial literacy and emergency saving. *Journal of Family and Economic Issues*, 35(1), 40-50.
7. Beckmann, E., Hake, M. and Urvova, J. (2013), "Determinants of households' savings in Central, Eastern and Southeastern Europe, focus on European economic integration", *Oesterreichische Nationalbank (Austrian Central Bank)*, No. 3, pp. 8-29.
8. Belke, A., Dreger, C., & Ochmann, R. (2015). Do wealthier households save more? The impact of the demographic factor. *International Economics and Economic Policy*, 12(2), 163-173.
9. Bodenhorn, H. (2018). *The Forgotten Half of Finance: Working-class Saving in Late Nineteenth-century New Jersey*. In *Research in Economic History* (pp. 35-65). Emerald Publishing Limited.)
10. Brunie, A., Rutherford, D., Keyes, E. B., & Field, S. (2017). Economic benefits of savings groups in rural Mozambique. *International Journal of Social Economics*, 44(12), 1988-2001.
11. Chamon, M., Liu, K., & Prasad, E. (2013). Income uncertainty and household savings in China. *Journal of Development Economics*, 105, 164-177.
12. Finscope data from www.fsd.or.tz/wp-content/uploads/2016/04/FinScope-Tanzania-2017-Data-2.zip accessed on 16-Nov-20.
13. Gigerenzer, G. (2004), "The irrationality paradox", *Brain and Behavioral Sciences*, Vol. 27 No. 3, pp. 336-338.) (too old).
14. Gjertson, L. (2016). Emergency saving and household hardship. *Journal of Family and Economic Issues*, 37(1), 1-17
15. Grigoli, F., Herman, A., & Schmidt-Hebbel, K. (2018). Saving in the world. *World Development*, 104, 257-270
16. Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2014). *Multivariate data analysis 7th Edition*. Pearson Prentice Hall. New Jersey. humans
17. Hanna, S. D., Kim, K. T., & Chen, S. C. C. (2016). Retirement savings. In *Handbook of consumer finance research* (pp. 33-43). Springer, Cham.

18. Heckman, S., & Hanna, S. D. (2015). Individual and institutional factors related to low-income household saving behavior. *Journal of Financial Counseling and Planning*, 26(2).
19. Isaga, N. (2018). Access to bank credit by smallholder farmers in Tanzania: a case study. *Afrika focus*, 31(1).
20. Jagadeesh, D. (2015). The impact of savings in economic growth: an empirical study based on Botswana. *International Journal*, 10.
21. John, A. (2017). Can Fixed Regular Deposits Overcome Savings Constraints?. *Revue économique*, 68(5), 909-924.)
22. Karlan, D., Ratan, A.L. and Zinman, J. (2014), "Savings by the poor and for the poor: a research review and agenda", *Review of Income and Wealth*, Vol. 60 No. 1, pp. 36-78, doi:
23. Loayza, N., Schmidt-Hebbel, K., & Servén, L. (2016). Saving in developing countries: an overview. *The World Bank Economic Review*, 14(3), 393-414. London.
24. Lubawa, G., Shirima, A., & Nandonde, F. A. (2018). Financing Preference for MSMEs in Rural Tanzania. *International Journal of research & methodology in social science* vol. 4, no. 1 Jan-Mar, 2018 quarterly journal issn 2415-0371, 4(1), 18-35.
25. Mariyah, M., Syaikat, Y., Hartoyo, S., Fariyanti, A., & Krisnamurthi, B. (2018). The Role of Farm Household Saving for Oil Palm Replanting at Paser Regency, East Kalimantan. *International Journal of Economics and Financial Issues*, 8(5), 124. Keynes, JM 1936. *The General Theory of Employment, Interest and Money*, Macmillan,
26. Marshal, A. (1961). *Principles of Economics*, (Mcmillan, London).
27. Najarzadeh, R., Reed, M., & Tasan, M. (2014). Relationship between savings and economic growth: The case for Iran. *Journal of International Business and Economics*, 2(4), 107-124.
28. Njenga, G., Onuonga, S. M., & Sichei, M. M. (2018). Institutions effect on households savings in Kenya: A ranked ordered multinomial/conditional probit model approach. *Journal of Economics and International Finance*, 10(5), 43-57.
29. Paule-Paludkiewicz, H., Fuchs-Schündeln, N., & Masella, P. (2016). Cultural determinants of household saving behavior.
30. Pokhariyal, G. P. (2019). Importance of moderating and intervening variables on the relationship between independent and dependent variables, *International Journal of Statistics and Applied Mathematics* 2019; 4(5): 01-04
31. Salleh, A. M. H. A. (2015). Integrating financial inclusion and saving motives into institutional zakat practices: A case study on Brunei. *International Journal of Islamic and Middle Eastern Finance and Management*, 8(2), 150-170.
32. Sarris, A., Savastano, S., & Christaensen, L. (2006). Agriculture and Poverty in Commodity-dependent African Countries: A Rural Household Perspective from the United Republic of Tanzania (No. 9). Food & Agriculture Org..
33. Senadza, B. (2014). Income diversification strategies among rural households in developing countries: Evidence from Ghana. *African Journal of Economic and Management Studies*, 5(1), 75-92.
34. Steinert, J. I., Zenker, J., Filipiak, U., Movsisyan, A., Cluver, L. D., & Shenderovich, Y. (2018). Do saving promotion interventions increase household savings, consumption, and investments in Sub-Saharan Africa? A systematic review and meta-analysis. *World Development*, 104, 238-256
35. Tang, W., Yu, Q., Crits-Christoph, P., & Tu, X. M. (2009). A new analytic framework for moderation analysis---moving beyond analytic interactions. *Journal of data science: JDS*, 7(3), 313.
36. Tavor, T., & Garyn-Tal, S. (2016). Risk tolerance and rationality in the case of retirement savings. *Studies in Economics and Finance*, 33(4), 688-703.)
37. Upender, M., & Reddy, N. L. (2015). Saving Behaviour in the Indian Economy. *International Journal of Applied Econometrics and Quantitative Studies*, 4(1), 37-56.