Contribution of retirement benefits on economic wellbeing of pensioners in Dodoma City

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Abstract: This study assesses the contribution of retirement benefits to the economic wellbeing of pensioners in Tanzania. Data were collected from 136 pensioners and 12 interviewees and analysed empirically using descriptive and regression models. The research findings revealed that the economic wellbeing of pensioners is not good after retirement. Furthermore, the study found that monthly pension and pre-retirement training are key contributing factors to pensioners' economic well-being. Moreover, other sources of income available to pensioners, education, and salary level have a significant contribution to economic wellbeing regardless of the retirement benefits one receives. Thus, the study recommends that institutions, stakeholders, and pensioners should work on a pension formula in order to increase the monthly pension amount to improve economic wellbeing of the pensioners. Future studies on social interactions are also recommended.

Keywords – Economic wellbeing, Employment, Pensioner, Retirement benefits, Retirement, Social security

1. INTRODUCTION

1.1. Background of the study

Retirement has been considered as an aging problem due to the diminishing physical powers of an individual to work. This has forced societies to find ways of maintaining aged individuals for survival. Retirement is a stage when an employee permanently leaves the workplace (Kasim, 2019). This means that the employee's salaries will stop instantly after retirement (Ministry of Finance, 2014). However, expenses will continue and thus depend on the accumulated savings or pension income from pension funds. Old-age pensions are payments recommended to workers after reaching a certain age. These payments are considered as benefits received after retirement (Kazimoto & Muhindi, 2014). Retirement benefits are considered more important because guaranteed monthly income provided can be outlived by the pension. If retirement benefit is considered, it can improve the standards of living of pensioners (International Labour Organisation, 2015). In addition, retirement benefits may provide extra benefits such as commuted pension gratuity, monthly pension, pre-retirement training, death benefits, disability protections, and benefits for spouses and children, should a pensioner die first (Kassim, 2019).

1.2. Social security schemes in Africa

One of the best intentions of the social security scheme is to ensure that members of the scheme (pensioners) meet their basic needs and attain a good standard of living through protection (ILO, 2015). It has also been argued that, in protecting the future, which is uncertain, pension funds enhance the availability of these protections through saving of salary or other incomes (Sulle, 2016). When observing contributory schemes in Africa, the existence of minimal pensions seems important in influencing economic wellbeing. Minimum pensions, reduced poverty rates, and gaps among the older individuals are improved (Thuku, 2019).

According to the Public Service Social Security Fund Act (2018), the official retirement age of some developing countries such as Tanzania is 60 years. Obviously, not all people aged 60 years are unable to work, and at the same time, not all people younger than 60 years are able to work (Ministry of Finance, 2014). Being 'old aged' is therefore not always the same as being 60 years of age. However, before receiving the financial benefits, the pensioners undergo some form of training so as to acquire skills, which help improve economic wellbeing after their income from salary ceases. The quest for economic wellbeing has been made not only an international issue but also a benchmark for the sustainability of livelihoods to the society (Béland, 2019). Economic wellbeing at retirement age has also attracted much attention of researchers and economists, especially in developed countries. Studies have analysed and suggested different factors, which could lead to economic wellbeing at retirement. For instance, Bender (2012) observes that adequacy of retirement income and retirement decisions are the key factors affecting the wellbeing of pensioners. This, together with an asset owned and possession of income-generating activities, is the current study center.

1.3. Social security schemes in Tanzania

In enabling retirement benefits, different types of social security schemes were established under the Social Security Act (Pension Ordinance Cap 371 of 1954). Although these schemes were established purposely to provide benefits to their members, one scheme differed from another depending on membership coverage and benefits package, which are based on a particular establishing Act (Kasim, 2019). Consequently, to harmonize the retirement benefit packages, the government, through the Public Service Social Security Fund (PSSSF) Act 2018, merged public schemes into (PSSSF), and National Social Security Fund (NSSF). Despite the effort made by the country to increase the spending on social protection and to harmonize the retirement benefit packages, pensioners still complain about their economic wellbeing. Ministry of Finance (2014) noted that at least 73 percent of the pensioners still involved themselves in income-generating activities such as small-scale agriculture and other businesses due to lack of security from the social security schemes. This indicates that retirement benefits may not be enough to sustain pensioners for their economic wellbeing.

2.   LITERATURE SURVEY

2.1. Retirement benefits and pensioners

Social security schemes provide retirement benefits that may assist older individuals in upholding a definite level of economic well-being even after old age and leaving the labor market (Veisi, Liaghat, Hashmi & Edizadehi, 2012; Dushi, 2017). It is obvious that some pensioners are able to change their lives after receiving the benefits, others cannot, depending on how prepared they have been (Thuku, 2019). Despite receiving retirement benefits, some pensioners face a number of stresses, shocks, and emotional distress which eventually affect their livelihood (Sulle, 2016). As Kazimoto and Muhindi (2014) and Chukwuere (2020) observe, a lack of skills in managing retirement benefits may hamper the positive impact of retirement benefits. As a result, pensioners and their dependents may live a depressed life because they are left with poor living conditions (Ministry of Finance, 2014).

2.2. Definition of some key terms

Retirement benefit - Retirement benefits refer to the pension, amount, or skill given to a person who retires from regular employment provided by the pension funds. Retirement benefits are assessed to pensioners who retired from 2018 to 2020 since, at this time; the Social Security Schemes in Tanzania experienced a major structural adjustment to improve services. Thus, pensioners receive a lump sum, monthly pension, and pre-retirement training from two social security funds, which are NSSF and PSSSF. Pre-retirement training refers to ways of planning for retirement (Béland, 2019). Operationally, this study assessed the contribution of pre-retirement training as one of the retirement benefits of pensioners after retirement. The assessment was carried out by asking pensioners whether the training was useful. The assessment also focused on the number of trainings accessed, duration of the training, and the proximity to retirement by the pensioners to test whether the number of training of one pensioner to another might influence economic wellbeing.

Pensioner/Retiree - This refers to a servant who is at the age in which he or she cannot work according to the stated policy of a certain country (Charles, 2017). In Tanzania, a person to be called a pensioner must attain the age of between 55 years as a voluntary retired age or otherwise 60 years which is a compulsory retirement age (Ministry of Finance, 201 4).

Control factors - The study used the following factors as control variables for the contribution of retirement benefits to pensioners' economic well-being. The study assessed these control factors as might influence economic wellbeing apart from the independent variables used in this study (Béland, 2019). The study determined if a pensioner had any other source of income, especially from children, spouses, other relatives and grants /gifts. Another control factor was education level, which was assessed by asking the pensioner his/her level of education. as Veisi et al. (2012) and Kasikazi (2015) advocate, education aimed at building confidence and skills needed to stimulate the performance of income generating activities need to be to pensioners.

Salary level of the pensioner is assessed through the following salary categories TZS 300,000-500,000 (minimum), 500,001-900,000 (middle earners), 900,001 and above (large salary earners) (Ministry of Finance, 2014). Salary rates can be used for the assessment of the standards of living of employees (Béland, 2019). The fourth control factor used is pensioner's physical health. Pensioners' health problems also have important implications for their economic well-being, because health condition can lead to higher levels of health care costs and also limit their ability to work to achieve additional sources of income during retirement (Bender, 2012).

Conceptual framework - The conceptual framework for this study was developed from Microeconomic theory, Life-cycle theory and Maslow's theory (Figure 1). The conceptual framework as based on empirical reviews and theories, provides a broader understanding of the phenomenon of interest. It comprises independent and dependent variables. Arrows in the conceptual framework indicate the flow of the relationship of variables.
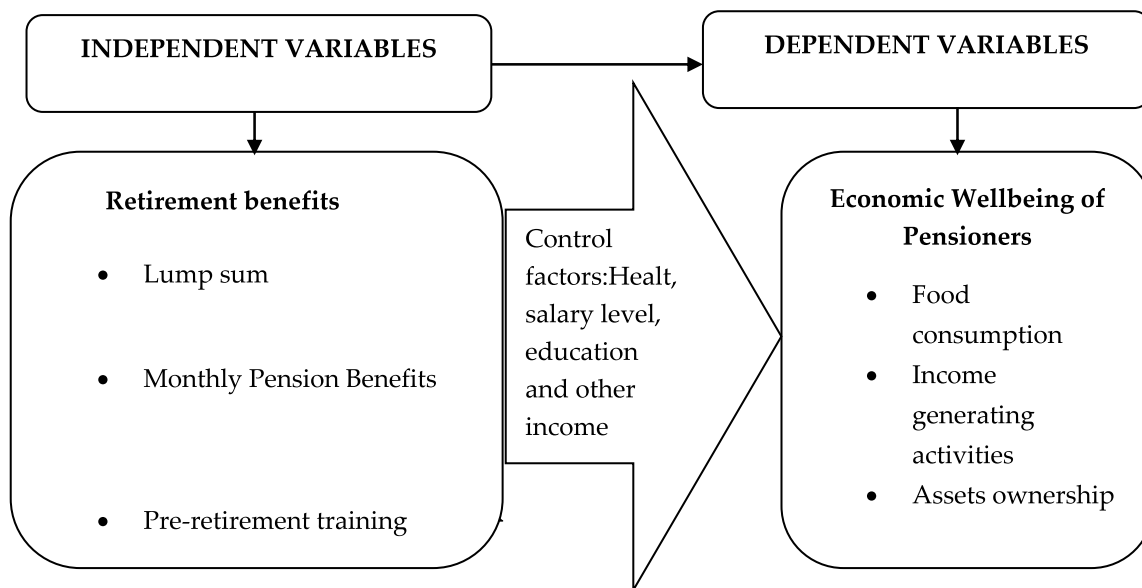
Figure 1: Conceptual Framework

Source: Literature developed from Fuentes and Rojas (2001) and Mcgee (2016) with some modification

3. PROBLEM STATEMENT

One important function of retirement benefits is to help pensioners maintain a certain level of livelihood thus protect them from falling into poverty when they are unable to work. Pensioners are reported to face various problems in maintaining economic wellbeing after retirement. According to Musila, Masinde & Maithya (2019), pensioners face challenges including psychological, physical, social, and economic which may be associated with inability to plan, save and invest for the future. As Thuku (2019) observes, pensioners' happiness depends on how well they plan and invest for the future. Despite the fact that planning is a major key issue of satisfaction in retirement, many pensioners lack essential knowledge on prior retirement. This is because very few employers provide pre-retirement training to their employees (Musila, 2019). Thus preparing pensioners for the retirement life seems a necessity in order to help them adjust better. Different scholars have conducted studies on retirement benefits. However, few have focused on economic wellbeing of pensioners. Most of the studies (Charles, 2017; Kazimoto & Mhindi 2014) focused on overall concept of retirement and social security protection.

Furthermore, previous studies generally based on social security policy (Charles, 2017) retirement factors (Kasikazi, 2015) economic development of retirees (Kazimoto & Mhindi, 2014), and physical and psychological wellbeing at retirement (Béland, 2019). In Tanzania, most of the studies focused on retirement benefits after retirement only and were conducted before the restructuring of the pension funds (Sulle, 2016; Kasim, 2019). In contrast, this study assessed both financial benefits and pre-retirement training skills obtained by the pensioner before and after retirement and which might have a contribution to economic wellbeing of the pensioners. Therefore, this study specifically intended to assess the effects of retirement benefits on economic wellbeing of pensioners.

4. RESEARCH METHODOLOGY

4.1. Research design and study area

The current study employed mixed research approach where quantitative and qualitative data were collected and presented in section 5. This study adopted a cross sectional research design. This is because data from this study were collected in a single position at a given time (Mohajan, 2017). Further pensioners from the two social security schemes (NSSF and PSSSF) around Dodoma City were involved. The rationale for selecting Dodoma capital city is due to the availability of a good number of pensioners (Ministry of finance, 2014). It was also because the researcher could easily access information required for the study (The public service social security act, 2018).

4.2. Sample size

A sample of 136 pensioners was used. There were 77 pensioners from NSSF and 130 pensioners from PSSSF who retired between 2018 and 2020 years. Since there were eight wards purposively involved in the study basing on the availability of the pensioners, nine pensioners were selected randomly from each ward which amounted to 72 in each Fund, NSSF and PSSSF. Unfortunately, eight NSSF pensioners were not available due to various reasons. Hence, 64 and 72 pensioners from NSSF and PSSSF respectively were selected. Therefore, the sample size used was 136 determined basing on the following formula by Cochran (1977),

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

Where   n= the sample size,

N= the population size
 e = the level of precision.
Therefore,

$$n = \frac{207}{1 + 207(0.05)^2}$$

n = 136
Therefore, the sample size for this study was 136 pensioners from Dodoma City. Additionally, 12 respondents were selected for in-depth interview. These included famous pensioners in the area and pension officers from NSSF and PSSSF.

4.3. Sampling techniques and data collection methods

The researcher with the help of Pension Funds (NSSF and PSSSF) prepared a list of pensioners. Therefore, from the prepared list 136 pensioners were selected randomly. The use of simple random sampling represented the target population and eliminated the sampling bias since all respondents had equal opportunities of being selected (Saunders, Lewis & Thornhill, 2012). In addition, judgmental and snowball sampling techniques were used to select 12 key respondents who were pension officials and famous pensioners respectively. This study obtained a research clearance from the University of Dodoma, and from NSSF and PSSF to ensure ethical adherence.

4.4. Data analysis plan

4.4.1. Qualitative data analysis

Qualitative data from interviews and notes were categorized into common themes (content analysis). Therefore, data were presented and analysed in accordance with the emerging themes supplemented by extracts from interviewees' quotations.

4.4.2. *Quantitative data analysis*

Data were analysed by creating a database and questionnaires were checked for completeness. The analysis involved coding, data entry, data cleaning, and generation of descriptive statistics. Descriptive statistics included mean, standard deviation, frequency tallies, and the corresponding percentage scores. To assess the economic wellbeing, which was proximately measured by assets owned, food consumed, and income-generating activities owned by pensioners in Dodoma City, descriptive statistics were used where frequency and percentages were performed. To examine the effects of retirement benefits on the economic wellbeing of pensioners, inferential statistics were used where multiple regressions (the information sought on dependent variables were the frequency of food consumption per day) and binary logistic regression (the information sought for dependent variable were ownership of assets and income generating activities whose answers were either yes or no) were performed under the following mathematical model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (2)$$

Where

Y = Food consumed in multiple regression analysis and assets owned or income generating activities owned by pensioners after retirement in binary logistic regression analysis.

X_1 = Lump sum (Commuted pension Gratuity)

X_2 = Monthly pension benefit

X_3 = pre-retirement training

X_4 = Education level

X_5 = Salary level

X_6 = other sources of income

X_7 = Health

β_0 = Constant value

β_1 β_2 and β_3 = Coefficients

ε = Error estimate

4.5. Data validity and reliability

4.5.1. *Data validity*

Given the nature of the study, the use of triangulation of research methods beaded to the validity of the study. Hence, the use of multiple methods gave credit to the data collected. In content validity method, fifteen (15) questionnaires were pre tested by distributing them to pensioners, statisticians and researchers' colleagues whose opinions were positively considered and the instruments were reviewed to make sure they generated the intended results.

4.5.2. *Reliability*

In this study, data scale reliability is measured by using Cronbach's alpha, to show the internal consistency of the scale reliability (Mohajan, 2017). Cronbach's α analysis is a useful method of determining internal consistency and

homogeneity of groups of items in questionnaires. In order for reliability to be adequate the Cronbach alpha's formular recommends a value of reliability coefficient of 0.7 and above (Mohajan, 2017). The tested Cronbach's alpha was 0.674, which indicates good internal consistency of the data.

5. DATA ANALYSIS AND DISCUSSIONS

Before presenting the findings for the specific objectives, the current study presents demographic information of the respondents as these might influence their behaviour on economic wellbeing.

5.1. Demographic information of the respondents

This study presents the following demographic characteristics including age, sex, education, and year of retirement, which were descriptively analysed in order to show the nature of the respondents involved in this study.

5.1.1. *Age, gender and education level of the respondents*

As presented in Table 1, the study found that a large proportion of the pensioners belonged to the age group 62 years and above, followed by those in the age of between 59 and 61, and few of the assessed pensioners were under the age of 55.

Table 1: Demography of the respondent (n = 136)

Age	Frequency	Percent
Under 55	2	1.5
56 – 58	14	10.3
59 – 61	43	31.6
Above 62	77	56.6
Education	**Frequency**	**Percent**
Primary	6	4.4
Secondary	12	8.8
College	41	30.1
Degree	77	56.6
Total	136	100.0
Gender	**Frequency**	**Percent**
Male	85	62.5
Female	51	37.5
Total	**136**	**100.0**

Further, descriptive results show that majority of the assessed pensioners in Dodoma City were males. Therefore, these results imply that most of workers who retired between 2018 and 2020 in the city are males. Moreover, the findings entail that most of the workers who retire have a bachelor's degree whereas very few have primary school education. Similar findings are reported by Even and Marcpherson (1990) who found out that 53 percent of employed men had pension while only 36percent of their female counterparts were receiving pension. These findings are also

supported by Lane (2018) who found that the type of jobs held by women are typically lower paying than those held by men. Similarly, in some cases women may not even qualify for entry into company pension plans, meaning that their contributions are nonexistent.

5.1.2. *Retirement year of the respondents*

This is the time, which a pensioner retires. The pensioners who were involved in this study retired between 2018 and 2020. Descriptive analysis of retirement year was carried out to know the number of pensioners in a specific year and establish the reason for being intensely concentrated in the specified year.

Table 2: Retirement year

Year	Frequency	Percent
2018	46	33.8
2019	59	43.4
2020	31	22.8
Total	136	100.0

The study findings (Table 2) show that most of the pensioners in this study retired in 2019. These results imply that most of the pensioners covered in this study retired in 2019 more than they did in 2018 and 2020. This is because in 2019, the government returned the old pension formula, which attracted most employees to retire voluntarily instead of waiting for compulsory retirement.

5.2. The economic wellbeing of the pensioners

5.2.1. Food consumption

Food consumption is an indicator of a pensioner economic wellbeing (Asogwa and Onyegbulam, 2021). Food consumption was analysed to know the types of food consumed and frequency of meals consumed per day to determine the state of economic wellbeing. The study findings in Table 3 indicate that eighty percent of the pensioners were consuming three meals per day whereas few were consuming four meals per day before retirement. Therefore, the economic wellbeing of pensioners before retirement was good based on food accessibility. These results are supported by Béland (2019) who found out that the possibility of attaining food security was very high before retirement and that is an indication of economic wellbeing.

Table 3: Frequency of consuming meals Per Day Before and after retirement

Before	Frequency	Percent
3	109	80.1
4	27	19.9
Total	136	100.0
After	**Frequency**	**Percent**
3	123	90.4
4	13	9.6
Total	136	100.0

On the other hand, the meals consumed by a pensioner per day after his/her retirement were good but not as good as the meals consumed before retirement. In comparison, the pensioners' economic wellbeing before was better than after retirement because there was an increase in the percentage of accessing 4 meals a day.

Common food eaten before retirement - The study findings (Table 4) revealed common foods eaten by pensioners, and these were fruits followed by rice and *ugali*, meat, vegetables, and fish. However, few pensioners consumed sardines/dagaa and beans. These results imply that before retirement, majority of the pensioners were eating more fruits as part of the food consumed. As Holder (2019) observes, the consumption of fruits and vegetables

enhanced wellbeing, life satisfaction, and happiness. Thus the findings imply that, economic wellbeing of pensioners was good before retirement.

Table 4: Common food eaten by pensioners before and after retirement (n = 136)

Before Retirement	N	Percent
Ugali/stiff porridge	95	15.7%
Rice	112	18.5%
Meat	92	15.2%
Fish	79	13.1%
Vegetables	80	13.2%
Fruit	114	18.9%
Dagaa/sardines	19	3.1%
Beans	13	2.2%
Total	**604**	**100.0%**
After retirement	**N**	**Percent**
Ugali/stiff porridge	246	41.9%
Rice	52	8.9%
Meat	28	4.8%
Fish	26	4.4%
Vegetables	65	11.1%
Fruit	11	1.9%
Dagaa	100	17.0%
Beans	59	10.1%
Total	587	100.0%

Common food eaten after retirement - Findings in Table 4 indicate that majority of the pensioners mostly eat ugali per day followed by those who eat *dagaa*, vegetables and beans. Few respondents indicated to have been eating rice, meat, fish, and fruits. The findings imply that those who eat ugali for example increased by 26.2 percent. The number of pensioners who consume meat has decreased by 10.4 percent. These findings imply that the affordability of meat has decreased which is supported by findings from key informants interview below. The key informants reported their inability to afford some foods such as meat, fish and fruits and not health issues. The findings imply further that those who consume fruits decreased by 17percent. Thus, most of the pensioners eat foods which are commonly eaten by the lowest income people after retirement (Turrell, 1998; Holder, 2019).

Holder (2019) shows the link between consumption of fruits and overall economic wellbeing by reporting that an increase in the consumption of fruits is associated with an increase of human satisfaction and wellbeing. Food choices of the respondents after retirement were least consistent with dietary guideline recommendations (Turrell, 1998) indicating poor economic wellbeing. This poor economic wellbeing might be attributed to insufficient monthly pension and lump sum amount to satisfy pensioners' welfare. These observations are supported by key interview findings. During interviews, one of the pensioners had this to say,

> *I used to contribute through pension as a member of NSSF to improve my wealth in the near future but now my life is not as I thought it would be. Unfortunately I can't afford even a kilogram of meat or fish per week. I advise the management of these funds to improve pension amount because I greatly depend on it.*

5.2.2. *Assets of the pensioners*

According to Kasim (2019), assets are what people accumulate, hold overtime and are a source of security against contingencies and improvement of household wellbeing. Thus, ownership of assets was analysed to know the state of economic wellbeing of pensioners. The results are presented in the subsequent subsections.

Common assets owned before retirement. The study findings in Table 5 reveal that, majority of the respondents owned a house, followed by those who own furniture, and land. Other assets include bicycles and cars. Thus, before retirement, majority of the pensioners owned long-term assets such as land, furniture, and building.

Table 5: Common assets owned by pensioners before and after retirement

Before Retirement	N	Percent
Bicycle	39	6.7%
Car	32	5.5%
Motor cycle	102	17.6%
House	113	19.5%
Land	110	19.0%
Furniture	111	19.2%
Agriculture equipment	72	12.4%
Total	**579**	**100.0%**
After Retirement	**N**	**Percent**
Bicycle	48	11.2%
Car	22	5.1%
Motor cycle	68	15.9%
House	136	31.7%
Land	89	20.7%
Radio	42	9.8%
Agriculture equipment	24	5.6%
Furniture	13	2.2%
Total	**442**	**100.0%**

Common assets owned after retirement - The most common assets owned by pensioners after their retirement is a house (see Table 5). Other assets owned but in very small proportions are bicycles, cars, motorcycles, land, a radio, and agricultural equipment. These findings show that pensioners who owned houses increased by 12 percent. Those who owned land increased by 2.7 percent; furniture owners decreased by 17 percent;, motor cycle owners decreased by 1.7 percent, and agricultural equipment owners decreased by 6.8 percent. These findings imply that owning a house is an indication that pensioners wellbeing has improved, as a house seems to be an important asset. The increase in land ownership implies there are some activities, which require land after retirement; such as farming, building houses and livestock keeping in sustaining livelihood of the pensioners. In contrast, furniture ownership decreased which could be associated with the wearing out of the available ones.

These results imply that after retirement, majority of pensioners who do not own a house invest some amount of money from the pension in order to build a house. In addition, those who own houses added some other houses for their own reasons. On the other side, in comparison to assets before retirement, the findings show that there is decrease in assets except for land and this is an indication of poor economic wellbeing of pensioners after retirement. Moreover before retirement majority of the respondents owned car more than was the case after retirement. Car ownership is an indication of positive income and economic wellbeing (Béland, 2019).

5.2.3. *Income generating activities*

Income-generating activities is one of the indicators of economic wellbeing (Musila, 2019). This variable was analysed because a person who possesses income generating activities is believed to be in a better position to acquire not only basic needs but also other requirements in life. The results from the study imply that majority of the pensioners owned income generating activities however the difference in percentage of ownership before and after retirement is only 9.6% (Figure 2). These findings are concurred by Musila et al. (2019) who reported that pensioners cope with retirement by engaging in economic, social and leisure activities.
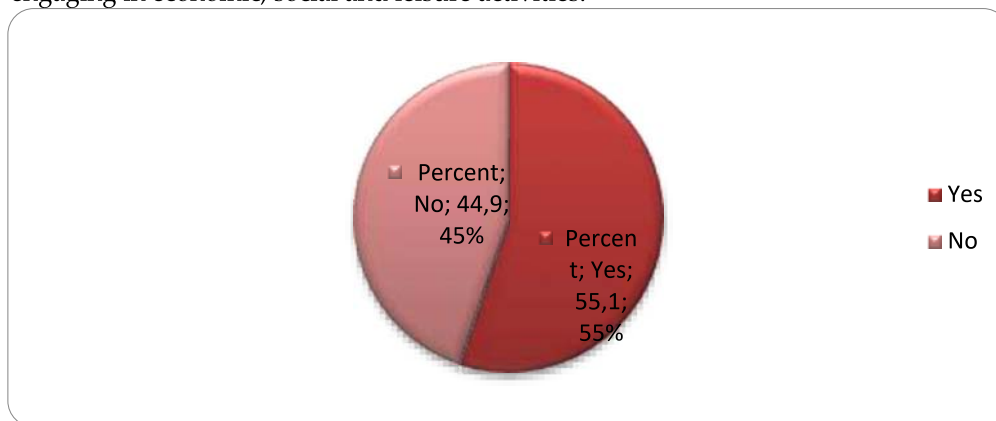

Figure 2: Ownership of income generating activities before retirement
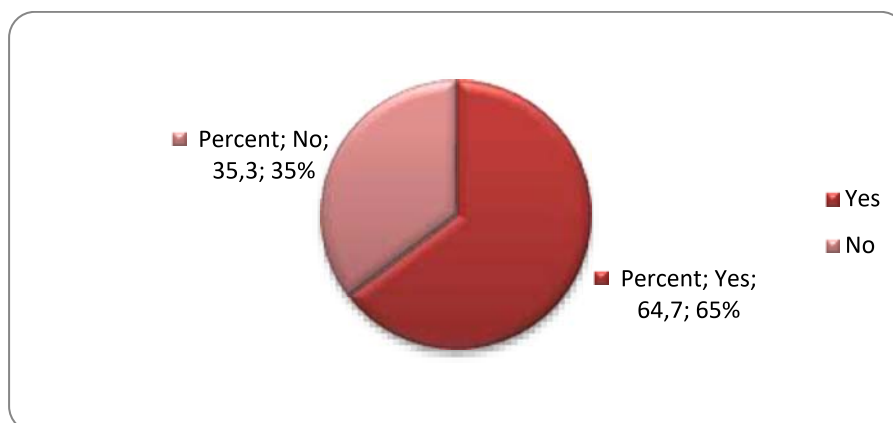

Figure 3: Ownership of income generating activities after retirement

Income generating activities ownership has increased by 9.7 percent, after retirement (Figure 3). Once a pensioner possesses income-generating activities, his/her economic wellbeing is expected to be good since he/she/ has a source of income. The above findings are similar to those obtained from interviews, which reveal that financial literacy is a problem to pensioners, which make them lose confidence in establishing businesses. It should be noted that a pensioner who is well organized and well prepared for retirement, is likely to have better economic wellbeing than is the case with those who are not organized and prepared (Thuku, 2019). Thus, pensioners are involved in loans/ for example, during interview one of pensioners had this to say,

The loan I got from the DON BOSCO SACCOs, which is supported by NSSF, helped to expand my business, which resulted to an increase of my income.

Another respondent had this to say,

The loan I got from the Tanzania Postal Bank (TPB) which is supported by PSSSF helped me improve my business. As a result, my income has increased.

Common income generating activities owned by pensioners - This variable was analysed to establish the type of income-generating activities that are popular among pensioners. Thus, the study findings in Table 6 reveal that, few respondents practise farming as one of the income generating activities before retiring. Others operate shop and bar services. These results imply that in most part of their young life, pensioners depended on their salary since a large part of farming was for home consumption.

Table 6: Common income generating activities owned by pensioners before and after retirement

Before Retirement	N	Percent
Farming	57	28.6%
Poultry keeping/none	25	12.6%
Shop selling	40	20.1%
Bar business	7	3.5%
Renting business	40	20.1%
livestock keeping/none	30	15.1%
Total	**199**	**100.0%**
After Retirement	**N**	**Percent**
Farming	34	20.5%
Poultry keeping	25	15.1%
Shop selling	32	19.3%
Bar business	19	11.4%
Renting business	15	9.0%
livestock keeping	22	13.3%
Selling grains	14	8.4%
Dispensary	5	3.0%
Total	**166**	**100.0%**

Common income generating activities after retirement - In addition, the study findings revealed further that farming has decreased by 8.1 percent. Bar business increased by 7.9 percent which is an indication that pensioners spend their time in leisure activities. On the other hand, very few respondents have opened dispensaries in order to generate income and thereby saving through serving the community. The findings indicate further that those who owned shop business decreased by 0.8 percent; renting business decreased by 11.1 percent; livestock keeping decreased by 1.8 percent; and poultry keeping increased by 2.5 percent;. Poultry and livestock keeping are carried out on small-scale basis. These findings imply further that, since most of the respondents were residing in towns, they do not engage themselves in farming activities rather engaging themselves in small businesses such as poultry keeping and bar business. A decrease in shop business could be attributed to the depletion of capital, as the income was not enough after retirement.

These findings imply that before retirement pensioners were not involving themselves more in income generating activities as their number were few before than after retirement. This could be due to lack of time as they were still employed. Income generating activities bring improvement in pensioners' livelihood in matters such as health,

family planning, nutrition and children education (Kasikazi, 2015; Sulle, 2016). Therefore, by relying on this fact, the economic wellbeing of pensioners deteriorated after retirement

5.3. The effects of retirement benefits on the economic wellbeing of pensioners

Section establishes the influence of retirement benefits (which are lump sum, monthly pension, and pre-retirement training) on food consumed, asset, and income-generating activities ownership, which in this case are proxy indicators of economic wellbeing.

5.3.1. *Effects of retirement benefits on food consumed*

Before going into results on effects, model fit findings are presented. The purpose of this analysis is to show the extent of the variables fitting the model, which is shown by coefficient of determination. The study findings in Table 7 show that coefficient of determination is greater than 50 percent; meaning there is a strong association between retirement benefits and food consumed and the model fit is high. in Table 10, VIF results are below 10 meaning there is no multicollinearity between variables.

Table 7: Model fit measurements results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.888ª	0.789	0.778	0.41238

In addition, the findings (Table 8) show a significant effect between pre-retirement training, monthly pension, education, and salary levels with food consumed by pensioners (P≤0.05). Furthermore, the findings show that all the independent variables except education level have positive effects on dependent variable implying that good retirement benefits result into good economic wellbeing. These findings are inconsistent with the findings in a study by Kasikazi (2015) which indicate that training is not statistically significant on food security. This might be due to the nature of the respondents studied. Farmers are different from work pensioners (Musila, 2019).

Table 8: Multiple regression results of effect of retirement benefits on food consumed

Model	B	Std. Error	Beta	T	Sig.	VIF
(Constant)	-0.145	0.694		-0.209	0.835	
Monthly	0.548	0.064	0.539	8.612	0.0001**	2.384
Lump sum	0.002	0.003	0.079	0.644	0.521	9.250
Pre-retirement training	0.343	0.139	0.337	2.470	0.015**	9.319
Education	-0.104	0.047	-0.098	-2.198	0.030**	1.213
Salary level	0.287	0.161	0.154	1.776	0.078**	4.558
Other source	0.063	0.062	0.072	1.022	0.309	2.985
Health	0.048	0.101	0.028	0.479	0.633	2.030

**Significance level at 0.05
Dependent variable is food consumed.

The study findings (Table 8) revealed further, that lump sum amount does not have a significant effect on food consumed at p= 0.521. This implies that the onetime payment does not affect daily food consumption of a person. These results support findings in a study by Sulle (2016) which revealed that pensioners use lump sum amount in investment, starting new business, and in other expenditures such as education fees, medical expenses, purchase of cars and payment of bills, which are not daily. The findings show further that there is no significant effect of education level on food consumed (economic wellbeing) of pensioners which indicate similarity to those of Thuku

(2019). Holder (2019) reports that, changes in income could result into increase in nutritious food consumption such as vegetables, milk, and eggs.

In addition, the study findings are supported by interview results, which indicate that the lump sum received by pensioners helped them in investing. One of the pension officers had this to say:

> *Most of the pensioners use lump sum to start business and economic projects like construction of commercial houses and hardware or mobile money business. In order to attain wellbeing of a pensioner there must be a need to receive payment earlier to avoid any inconvenience in life after retirement.*

Another pension officer had these to say,

> *Most pensioners use lump sum to start business like farming and poultry, retail shop and opening cereal shop (duka la nafaka). Unfortunately, some use it in clearing their outstanding loans, starting house construction and paying fees for their children. Some pensioners make bad use of this money since it is their first time to have such huge amount of money so they end up using them in unplanned expenses like buying luxury cars, marrying a young wife, betting and alcohol.*

5.3.2. *The effects of retirement benefits on income generating activities*

The purpose of this sub section is to determine the effect of retirement benefits on ownership of income-generation activities. Thus, the respondents were asked whether they owned any income generating activity. Before getting into the findings. first likelihood ratio findings are presented. The -2 log likelihood ratio as presented in Table 9 shows the goodness of fit of the model (binary logistic regression), which means the highest value of the ratio is an indication of the model fit.

Table 9: Likelihood ratio of the binary logistic model

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	145.117[a]	0.226	0.308

The findings in Table 10 indicate that pre-retirement training has a significant negative effect on income generating activities ($p \leq 0.1$). The findings imply that in every 1 unit increase in pre-retirement training, income generating activities will decrease by 38 percent; study findings reveal further that lump sum amount does not have a significant effect on income generating activities ($p \geq 0.05$). This implies that; either the training provided is not effective enough or the training material motivate pensioners to other sources of income (such as dependency on their relatives and children) other than working to generate their own income. The study findings also indicate that monthly pension amount has a positive significant effect on income generating activities ($p \leq 0.05$) whereby a 1 unit increase in monthly pension amount means an increase by 47.2 percent of other income generating activities of pensioners Thus, more intervention should be focused on this source of income for pensioners. Table 10 shows the effect of retirement benefits on income-generating activities.

Table 10: Retirement benefits effect on income generating activities

	B	S.E.	Wald	Df	Sig.	Exp(B)
Lump sum	-0.637	0.254	6.275	1	0.012**	0.529
Monthly	0.472	0.220	4.619	1	0.032**	1.603
Pre-retirement training	-0.388	0.229	2.866	1	0.090***	0.679
Other source	-0.391	0.239	2.681	1	0.102	0.676

Education	0.144	0.157	0.836	1	0.361	1.155
Health	-0.125	0.269	0.215	1	0.643	0.883
Salary	0.079	0.286	0.077	1	0.781	1.083
Constant	2.206	1.569	1.978	1	0.160	9.079

**Significance level at 0.05 *******significant level 0.1

These results imply that the control variable (salary level, health, education level, and other sources of income) might have little effect to be detected in the model since they are found to have no significant effect on income generating activities. These findings are supported by findings in a study by Kasikazi, (2015) who revealed that 52 percent; of the respondents agreed that health has no influence on income generating activities. The same author reported that an increase in literacy skills leads to an increase of the capability of operating income generating activities. These findings are in contrast to the findings in the current study, since education level was found to have no significant effect on income generating activities; this could be due to contextual differences.

On the other hand, from the interview conducted, it was revealed that since merging of pension's fund schemes, the pre-retirement trainings are rarely provided by pension funds but the employer himself or herself are the ones who prepare and provide the pre-retirement training to the prospective pensioners. During interview, one of PSSSF pension officers had this to say,

> *Majority of pensioners do not take the pre-retirement training seriously before retirement hence its importance is seen after retirement.*

5.3.3. *The effect of retirement benefits on assets owned*

This sub section focuses on the effect of lump sum, monthly pension, and pre-retirement training on assets owned by pensioners. Before going into the findings, first the findings on likelihood ratio are presented. The -2 log likelihood ratio as presented in Table 11 shows the goodness of fit of the model (binary logistic regression), which means that the highest value of the ratio is an indication of the model fit.

Table 11: The likelihood ratio of binary logistic regression model

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	129.176[a]	0.274	0.381

The study findings in Table 12 indicate that pre-retirement training has a positive significant effect on the asset owned by pensioners ($p \leq 0.05$) whereby every 1 unit increase in pre-retirement training would to an increase of assets owned by pensioners by 62.5 percent;. the study findings reveal further that lump sum amount has a positive significant effect on assets owned by pensioners ($p \leq 0.05$) in which every 1 unit increase in lump sum amount would lead to an increase of the assets owned by pensioners by 63.7 percent;. The findings indicate further that monthly pension amount has a negative significant effect on assets owned by pensioners at ($p \leq 0.05$) whereby every 1 unit increase in monthly pension amount means would lead to a decrease of assets owned by pensioners by 60.7 percent, the study findings show further that other sources of income of pensioners are positively significantly related to assets owned by pensioners at ($p \leq 0.05$). These findings on the effect of retirement benefits on asset ownership are shown in Table 12.

Table 12: Retirement benefits effect on assets owned

	B	S.E.	Wald	df	Sig.	Exp(B)
Lump sum	0.637	0.273	5.424	1	0.020**	1.890
Monthly	-0.607	0.245	6.113	1	0.013**	0.545
Pre-retirement training	0.625	0.252	6.147	1	0.013**	1.868
Other source	0.517	0.255	4.129	1	0.042**	1.677
Education	-0.158	0.168	0.876	1	0.349	0.854
Health	-0.135	0.291	0.215	1	0.643	0.874
Salary	0.164	0.308	0.283	1	0.595	1.178
Constant	-2.576	1.721	2.241	1	0.134	0.076

**Significance level at 0.05, Dependent variable=asset owned

These findings are in contrast to the findings reported in a study by Kasim (2019) who found that access to monthly income has a positive correlation with assets owned. The difference could be attributed to the difference of the assets used. The implication of other source of income being positively affecting assets owned is that pensioners depend on their children, grant, aids, spouse and other relatives to improve their economic wellbeing. These results are supported by qualitative findings, which exhibit the following,

> *There is a need to improve pre-retirement training provided to prospective pensioners. If these training were provided to these young employees, they would help much better since they will be vigilant of saving before retirement and prepare for life after retirement.*

6. RESEARCH IMPLICATIONS

The descriptive findings show that economic wellbeing was good before as compared to after retirement. This is shown by good asset condition and types of food eaten before and after retirement. However, possession of income generating activities was larger after retirement than before. The implication of this is that there is a possibility of attaining food security before retirement than after. Furthermore, owning income-generating activities means pensioners are fighting for their survival especially when they cannot even replace or repair the assets owned. Moreover, the findings imply that monthly pension has everything to do with economic wellbeing of pensioners since it has significant effect on asset owned, food eaten, and income-generating activities. This implies further that if there is any intervention, which needs to be done to improve economic wellbeing of pensioners then definitely monthly pension should be involved. The findings however show that pre-retirement training and lump sum are important in improving asset ownership and food eaten by pensioners. This may be due to the fact that there are things which can be bought by a lot of money to facilitate the upkeep of the retirement benefits such as land, house, farming machinery using one time expenditure (lump sum) to mention a few. Some assets like land and farming machinery may also help in ensuring food availability.

7. CONTRIBUTIONS TO SCIENTIFIC COMMUNITY AND FUTURE RESEARCH

The study has been able to contribute the following to the research community

i. Majority of pensioners still consume 3 meals per day and posses income generating activities which indicate good economic wellbeing. However, their assets are not in good condition.

ii. The study is also able to show a significant effect between pre-retirement training, lump sum, and monthly pension with assets owned and income generating activities of pensioners. The findings show further that

pre-retirement training, monthly pension, education level, and salary of pensioners have significant effects on the food consumed by pensioners.

iii. The study was able to show that there is a need of work on the retirement benefits formula especially for monthly pension as it has a contribution to asset owned, possession of income generating activities and food consumed especially after the revelation of this study that pensioners are still depending on other sources of income such as gifts, grants, loans from relatives, children, neighbours and the like to improve asset ownership.

The study is suggesting the following future researches

i. A study need to be conducted to explore factors for effective utilization of retirement benefits in achieving economic wellbeing of pensioners.

ii. Since this study was conducted using pensioners who retired three years from 2018 to 2020, the study recommends future studies be time series in nature and focus on years beyond 2018.

iii. Further, a study needs to be conducted to assess the effects of social interactions (family background, groups, friends etc) on the economic wellbeing of pensioners. This study is suggested because there is a possibility that poor economic wellbeing of pensioners may be affected by social intervention more than the retirement benefits.

8. CONCLUSION

Based on the study findings especially on the retirement benefits, the following recommendations are made to specific institutions and individuals: The government and key stakeholders; should work on pension formula (*Kikokotoo*) in order to increase monthly pension amount so as to improve economic wellbeing of pensioners. Although pre-retirement (entrepreneurship) training was found to have a negative effect on income generating activities, the study is proposing that the pensioners be exposed to different entrepreneurship trainings, which are provided by different institutions in order to increase knowledge on using it as a source of capital to improve their economic wellbeing. Stakeholders and all concerned with pension should focus their policies and intervention strategies on monthly pension and pre-retirement training so as to improve the economic wellbeing of pensioners. Since this study was conducted using pensioners who retired three years from 2018 to 2020, the study recommends future studies, which are time-series in nature to get the yearly contribution and if possible using years beyond 2018. In addition, this study is suggesting future research on the effect of social interactions (family background, groups, and friends) because poor economic wellbeing of pensioners might be affected by social intervention more than the retirement benefits.

From the research findings the study concludes that economic wellbeing of pensioners is poor after retirement because almost all variables such as assets, food and income-generating activities brought good results before retirement. Generally, retirement benefits have shown a positive relationship with economic wellbeing. Thus, good retirement benefits are associated with good economic wellbeing. The study also concludes that monthly pension and pre-retirement training have a significant contribution to economic wellbeing since they were found to have significant effect on food consumed, asset owned, and income-generating activities by pensioners. The findings sconcerning other sources of income indicate that pensioners depend on their children, other relatives, and grants in improving their economic wellbeing after retirement. Thus, economic wellbeing of pensioners is not only contributed by retirement benefits but also depends on other sources of income available to pensioners, salary, and educational level.

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References

Asogwa, A.S., & Onyegbulam, L.A. (2021). Climatic variation and food security implications in sub-Sharan Africa. *African Social Science and Humanities Journal.* 2 (2), p62-72

Béland, D. (2019). Narrative stories, institutional rules, and the politics of pension policy in Canada and the United States. *Policy and Society*, *38*(3), 356–372.

Bender, K. A. (2012). An analysis of well-being in retirement: The role of pensions, health, and "voluntariness" of retirement. *Journal of Socio-Economics*, *41*(4), 424–433.

Charles, L. J. (2017). The experience of retired civil servants in claiming their old age pension in Tanzania : A case of National Social Security Fund (NSSF) Kinondoni Branch Dar es Salaam. 72p.

Chukwuere, J. E. (2020). Social media age; Where is the spirit of Ubuntu in the education sysytem? *African Social Science and Humanities Journal.* 1(1); 1-6.

Cochrane, G. W. (1977). *Sampling Techniques.* John Wiley and Sons Publishing Company, New York, USA. 66pp.

Dushi, I. (2017). The Importance of Social Security Benefits to the Income of the Aged Population. *Social Security Bulletin*. *77*(2), 4–11.

Even, W., & Macpherson, D. (1990). The Gender gap in pensions and wages; *The Review of Economics and Statistics*; The MIT Press ; Vol. 72, No. 2 , pp. 259-265 (7 pages).

Fuentes, N., & Rojas, M. (2001). Costs of secondary parasitism in the facultative hyperparasitoid Pachycrepoideus dubius: Does host size matter? *Economic Theory and Subjective Wellbeing*, *103*(3), 239–248.

Holder, M. D. (2019). The Contribution of Food Consumption to Well-Being. *Annals of Nutrition and Metabolism*, *74*(Suppl2), 44–51.

International Labour Organisation (ILO). (2015). *World social protection report 2014-15*. Geneva, Switzerland: ILO Press.

Kasikazi, R. (2015). *Assessing the impact of income generating activities on development of coastal communities in Tanzania: A case study of pangani district council 1-7p.*

Kasim, Y. (2019). Impacts of Livelihood assets on Wellbeing of pensioners. International Transaction *Journal of Engineering , Management , & Applied Sciences & Technologies 10*(13), 1–12.

Kazimoto, P., & Muhindi, G. (2014). Analysis of Retirement Benefits and Socio-Economic Development of Retirees in Tanzania. *Baraton Interdisciplinary Research Journal*, *6*(4), 134–144.

Lane, S. (2018). The scary facts behind the gender pension gap; retirement investment systems reform; *World economic forum.* Available at: *https://www.weforum.org/agenda/2018/03/retired-women-less-money-pensions-than-men*

Ministry of Finance (2014). Social protection: Building effective and sustainable systems for equitable growth. Towards universal pensions in Tanzania, evidence on opportunities and challenges from a remote area. Arusha, Tanzania: Government Printer.

Mohajan, H. K. (2017). Two criteria for good measurement in research. *Validity and Reliability, Annals of Spiru Haret University*, *17*(3), 58–82.

Musila, A. K. (2019). Positive coping with retirement among retired teachers in Makueni County. *Advances in Social Sciences Research Journal*, *6*(9), 386–396.

Musila, A. K., Masinde, J., & Maithya, H. (2019). Retirement Life Challenges Experienced by Retirees: The Case of Retired Teachers in Makueni County, Kenya. (October).

Pension act. (1997). The National Social Security Fund. *Tanzania*, Available at: https://doi.org/10.22459/cnewg.12.2012.19

Saunders, M. N., Lewis, P., Bristow, A. & Thornhill, A. (2012). *Research Methods for Business Students*. Ed. 8 chap.4; 3-157; Pearson Education3.

Sulle, M. (2016). An Assessment of the Challenges Faced by the Retirees in Accessing Formal Security Benefit in Tanzania: The Case of PSPF in Hanang'District (Doctoral thesis). The Open University of Tanzania.

The Public Service Social Security Fund Act. (2018). *The United Republic of Tanzania No. 6 Vol. 99 dated 9 th February, 2018*. 1-60; Governement Printer.

Thuku, P. W. (2019). Influence of Retirement Preparation on Happiness in Retirement : a case of Nyeri Influence of Retirement Preparation on Happiness in Retirement : a case of Nyeri County , Kenya. *1*(March 2013), 1–20.

Turrell, G. (1998). Socioeconomic differences in food preference and their influence on healthy food purchasing choices. 135–149.

Veisi, H., Liaghat, H., Hashmi, F., & Edizadehi, K. (2012). Mechanisms and instruments of sustainable development. *Journal of Development in Practise*, vol 22, issue 3; 385-399.