

**POST-RETIREMENT CHALLENGES AFFECTING WELFARE OF SOCIAL
SECURITY FUND MEMBERS IN DAS ES SALAAM, TANZANIA.**

BY

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**A Dissertation Submitted in Partial Fulfillment of the Requirements for the
Degree of Master of Science in Applied Economics and Business (MSc. AEB) of
Mzumbe University**

2019

CERTIFICATION

We, the undersigned, certify that we have read and hereby recommend for acceptance by the Mzumbe University, a dissertation titled: **“Post-retirement challenges affecting welfare of social security fund members in Dar es Salaam, Tanzania”** in partial fulfillment of the requirements for the award of Master of Science in Applied Economics and Business (MSc. AEB) of Mzumbe University.

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DEDICATION

I am persuaded to dedicate this work to God Almighty my creator, my source of inspiration, wisdom, knowledge and understanding. He has been the source of my strength throughout this research; and on His wings, only have I soared. I also dedicate this work to my daughter, Arielle who has been affected in every way possible by this quest. To my lovely husband, Mr. Albert Mwangaza, who has supported me all the way and whose encouragement has made sure that I give it all it takes to finish that which I have started.

ABBREVIATIONS AND ACRONYMS

ACFS	Australian Centre for Financial Studies
AIST	Australian Institute of Superannuation Trustees
AUROC	Area Under the Receiver Operating Characteristic Curve
GEPF	Government Employees Provident Fund
ISE	Informal Sector Employees
ISSA	International Social Security Association
LAPF	Local Authorities Pension Fund
LPM	Linear Probability Model
NHIF	National Health Insurance Fund
NHSS	National Household Sample Survey
NSSF	National Social Security Fund
PPF	Parastatal Pension Fund
PSPF	Public Service Pension Fund
SSPF	Social Security Pension Fund
SSRA	Social Security Regulatory Authority
URT	United Republic of Tanzania
VETA	Vocational Education and Training Authority
ZSSF	Zanzibar Social Security Fund

ABSTRACT

This study examined post-retirement challenges affecting welfare of social security fund members in Dar es Salaam based on a cross-sectional survey of 186 respondents. Specific objectives were, to explore and identify main challenges perceived to affect access pension benefits in SSPF among the retired civil servants, to examine the extent to which the challenges are related with socioeconomic attributes of the retired civil servants, and to determine the extent to which the challenges encountered by the civil servants affect welfare.

Descriptive statistics and logistic regression were used for estimating and testing the proposed relationships. The descriptive analysis indicates that transport costs, insufficient amount of pension received, delays in processing and paying terminal benefits, and mishandling of clients' data were important challenges affecting members of social security in accessing pension funds. The results from the Logistic regression model suggest that delay in payment, psychological effects, housing condition, life stress experience, early death perception, gender and marital status are significant factors in explaining challenges facing members of social security pension funds.

Despite the encountered challenges, most of the retirees acknowledged the importance of pension as it serves the intended purpose. However, they claimed it not to be sufficient enough to cater for all of their needs such as food, housing, medical care and their dependent's education without depending on other sources of income such as business and remittances/family support.

From the findings, it is recommended that knowledge on social security pension funds and financial management to be provided to members of social security schemes as well as creating awareness and attitude towards investment and retirement while on service for better retirement plans. Further, pension funds payment systems should be improved by social security schemes to ensure timely provision of services to improve the retiree household's welfare.

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CHAPTER ONE

BACKGROUND OF THE RESEARCH PROBLEM

1.1. Introduction

This chapter presents the background of the study, statement of the problem, objectives of the study, research questions, significance of the study, scope of the study and organization of the study.

1.2. Background of the Study

Pension funds play a big role in supporting retirees to manage their post-retirement as their income from their savings through contributions to the Social Security Fund (SSF) schemes. The concept of Pension funds refers to a program that is designed to provide economic assistance to retired employees financed by employers to prevent them from unforeseen contingencies (Kazimoto & Mhindi, 2014).

World Bank explains that pension schemes should focus in providing satisfactory, affordable, maintainable, and healthy benefits coverage to its members. It asserts that pensions should be able to replace sufficient lifetime earnings of retirement income in order to prevent old age poverty (Alem, 2015; Holzmann & Hinz, 2005). Today, nearly every country has some form of social protection developed to provide economic support in times of need (International Social Security Association, 2005) where the beneficiaries are covered in various forms including old-age pensions, survivor benefits, medical benefits, family allowances or other supports. Social security is considered as human right but also brings integration between economic integration and human rights to the community (Barya, 2011; Beltadze, 2016).

In developing countries, there are three pillars of social security systems; basic pension that deals with social assistance system, which guarantees minimum income in old age and it is financed by taxes. Second is contributory to the schemes and contains the pension funds schemes (NSSF, PPF, PSPF and LAPF) which benefits

the contributors only. Third pillar is a provident fund (GEPF), which includes NHIF (Willmore, 2000). The first pillar is not very common in the country and their pension plans are not clearly in place compared to the second pillar; the second pillar pension is mandatory to public servants through both employers and employees' contributions. As a result, very few people are covered in the population, mostly formal employees.

The social security system in Tanzania comprises of six SSIs in mainland and one in islands. The Act of Parliament, 2017 formed these SSIs as corporate bodies, and members of the schemes, benefits to be provided and who is entitled to be covered are well stated. In developing countries, small percentage of the population is covered by the schemes, less than 10% (ILO, 2014), and in Tanzania, less than a million people out of 44.9 million (URT, 2012) are covered. The majority of members are the self-employed whereas the Informal Sector Employees (ISE) remain without any form of social protection. Implicitly, most of Tanzanians are vulnerable to social and economic insecurity. Thus, unless measures are taken to ensure that they can access some kind of social protection, they will continue to be affected by pangs of poverty. A crucial issue is therefore, how lives and livelihoods in developing countries such as Tanzania can be made more secured against poverty (Kapuya, 2003).

There has been quite improvement in the operation of Social Security sector in the country, among the reasons being having a number of SSIs that provides social security services to the members. This has resulted to an increase in competition among the institutions and thus improves various areas of service provision including processing of the members' benefits timely, providing more benefits to the members as well as making it easier to them in submitting their claims for payments (Social Security Regulatory Authority act of 2008). Previously, benefits computation formula used to differ among the SSIs, however, Social Security Regulatory Authority (SSRA) developed mutual formula for benefits calculations to be applicable for all SSIs to its registered members beyond 1st of July 2014.

Despite the improvements made by the SSRA Act, yet retirees who depend solely on their pensions face life challenges at retirement, as they are not in a position to access their basic needs entirely such as food, shelter and health care (Garba & Mamman, 2014; Eremie, 2015; Kazimoto & Mhindi, 2014; Museya, 2014).

1.2.1. Background to Social Security Programmes

Social security system was established in United States in the 19th century through the signed Social Security Act of 1935 aiming to protect people at old age and when faced with disabilities. The social security programmes went globally in the 20th century as countries adopted the system to cover for their people. The development of social security has also been supported by various International conventions and instruments, and was recognized and enshrined in the 1948 Universal Declaration of Human Rights as a basic human right. In this world that we are living, we are not certain of what future holds, thus, the social security programmes are set as economic security for people's future demands when they retire or faced with unemployment due to other factors, disabilities, illness or death.

Currently, there are different kinds of social security programmes in most countries which act as a pillar in distributing rights, resources and risks which affect men and women differently (Arza, 2017). The most common types of programmes are for old-age, disability, and survivors' pensions. Other programmes are for benefiting workers from work injuries and occupational diseases, illness, maternity, family allowances and other unemployment benefits. Provident fund was a different form of social security that was introduced in Africa during colonial era. In countries such as Tanzania, Uganda and Zambia, provident funds were the dominant form of social security but these have since been transformed into social insurance schemes to enhance income security (ILO, 2000). In Tanzania, provident fund (GEPF) was formed, which includes NHIF (Willmore, 2000).

1.2.2. Challenges Facing Social Security in Tanzania

The government interventions have been among the challenges facing social security systems in the country. The structure of the systems and appointment of boards of directors are under the government's authority including the schemes administrations, funds management and allocation of resources in terms of the schemes' investment decisions (URT, 2010). At the same time, there are controls on government's involvement, for instances, schemes that are run by government department has a separate board that makes investments decisions (ILO, 2010). In other cases, board of directors and chief executive officers at present enjoy considerable autonomy, subject to contractual and performance arrangements with an overall supervision by government departments.

Resources in SSPF schemes have been and still are redirected among the benefits, such as pensions and also being invested for income generation which as a result affects timely payments to the retirees (URT, 2010). Deterioration of the social security scheme due to high running cost including overheads and budget limitations as well as poor service delivery has affected the savings/income of the social security schemes. Low income of individuals due to unemployment and underemployment, falling productivity and wages, short-term jobs, casual employment and poverty in general also affects the social security schemes (Maduhu, 2014; Puttick, 2015). Moreover, retirees' claims the challenges to be more in the insufficiency of the terminal benefits, long processing of the benefits, poor provision of updates/information by the social security fund for individuals' awareness prior joining, contribution amount and projected benefits (benefit statements) and insufficient records management, tracking and computerization (Museya, 2014; URT, 2010).

There are notable achievements, for instance, the use of information and communication technology and public concretization campaigns, which play a very big role in improving social delivery (URT, 2010). Unfortunately, SSIs do not implement the strategy and whenever does, it applies to few special cases that which do not bring impact to the public and to the intended beneficiaries. Regulation of

social security funds could play a considerable role in compelling social security funds to carry out their duties to the satisfactory standards, for instance, regulation of business environment, both public and private, is essential to raise transparency and protect beneficiaries (ILO, 2010). More often than not, social security funds are subject to their governing laws and the supervision of ministries of Local Government, Labor and Finance and regulatory bodies such as SSRA (URT, 2010).

1.2.3. The Role of Social Security

The social security systems are aimed to cover their members from future uncertainties by providing them with economic security; reducing poverty and providing sustainable growth (Museya, 2014). Moreover, social security is also aimed to cover for the members to prevent them from vulnerability, providing them with employment opportunities and access to basic needs (Azaki, 2015; Kapuya, 2003). There is high need of social protection in the country, however, the social security is limited in the sense that it does not cover the entire population, only members are covered. There is no plan aimed at helping the poor by improving governance and presentation of public sector institutions such as creating possessions, employment, income creation opportunities, revamping social safety net systems and improving access to basic services, though some schemes are run by the government and also by nongovernmental organizations (NGOs) and the personal sector (ILO, 2010).

The social security's key role is to protect its members and their dependents. Its essence is to provide income for consumption smoothing throughout the lifetime of its members as well as insuring them socially and financially. Social security is a protective measure that assists individuals and their households to be economically secured as their essential potential realization and also to improve their wellbeing. (Museya, 2014).

1.2.4. Policies Governing Social Security Terminal Benefits Payments

Literature says that retirement benefit payments are usually provided under pension schemes while there are other social security benefits provided under government or state institution depending on contingencies covered and policy of that state. There are two types of pensions benefits, that is, the defined benefit pension plan and defined contribution plan (Holzmann & Hinz, 2005). Under private sector, defined benefit plans are often funded exclusively by employer contributions while in the public sector; defined benefit plans usually require employee contributions. The defined contribution has become the dominant form of plan in the private sector in many countries because mostly, employers see pension contributions as a large expense avoidable by disbanding the defined benefit plan and in its place offering a defined donation plan (Museya, 2014).

The right to social protection conferred under the charter of the United Republic of Tanzania of 1977, as amended in 1984, 1995 and 1998, should also confer the right to benefits. Mchomvu, Tungaraza and Maghimbi (2002) argue that members should know the scale of benefits payable under the different schemes. They also argued that social security benefits computation and payments conditions need to be well stipulated in the respective scheme's establishment laws. The laws should also put an appeal mechanism in place for distressed members and the beneficiaries' rights to be protected. Information should be timely provided to beneficiaries and their rights should be protected including timely benefits payments.

1.3. Statement of the Problem

In Tanzania, challenges faced by retirees on pension payment are of a concern, thus, needs to be addressed (URT, 2010). Most of retired public servants depend on pension benefits as their core source of income over their lifetime after retirement (Museya, 2014). Social security is designed to provide assurance and assistance to protect the members from life hardships including life distress, illness, financial hardship and other life challenges.

A delay in pension benefit payments causes inconveniences and challenges to most of the members and beneficiaries of the schemes in numerous countries in the world and Tanzania being among them (Museya, 2014; URT, 2010). Various challenges including little pension amount and long time in processing their payments have been experienced by the retirees and resulted to life hardships (URT, 2010).

In Tanzania, the retired civil servants are covered by five main social security funds in mainland. These include Local Authorities Pension Fund (LAPF), Public Service Pension Funds (PSPF), Government Employees Provident Fund (GEPF), National Social Security Fund (NSSF) and Parastatal Pension Fund (PPF). In the Tanzania islands, there is Zanzibar Social Security Fund (ZSSF). These social security schemes cover pensions and other benefits including invalidity, injury, survivors, and maternity benefits and the likes for the members (URT, 2010).

These social security funds collect employees' monthly deductions from workers in the country. The government and other stakeholders borrow this money for different activities such as construction of projects. Sometimes the Government delays repayment, forcing the Social Security Funds to fail to pay clients timely (Museya, 2014; URT, 2010). Delays in paying the retirees cause difficulties in their daily life.

A number of studies have been conducted on pension funds in Tanzania (Kazimoto & Mhindi, 2014; Semango, 2015). Most of them, however, have assessed terminal benefits payments practices in Tanzania. There is limited research that attempt to understand the challenges facing members of social security funds and their implications for the retiree household's welfare. The current study, aims to address this gap of knowledge.

1.4. Research Objectives

1.4.1. General Objective

The general objective of this study was to assess the challenges in accessing pension benefits and their implications for the welfare of the retired civil servants in Dar es Salaam.

1.4.2. Specific Objectives

The specific objectives of this study are;

- a) To explore and identify main challenges perceived to affect access pension benefits in SSPF among the retired civil servants.
- b) To examine the extent to which the challenges are related with socioeconomic attributes of the retired civil servants.
- c) To determine the extent to which the challenges encountered by civil servants affects welfare.

1.5. Research Questions

This study was guided by the following research questions;

- a) What are the main challenges perceived to affect access to pension benefits in SSPF among the retired civil servants?
- b) To what extent do the challenges relate with socioeconomic attributes of the retired civil servants?
- c) To what extent do the challenges encountered by civil servants affects the welfare?

1.6. Significance of the Study

The study provides policy recommendations aiming to improve practices in the social security payment systems, which in turn are expected to improve household's welfare. The study also adds knowledge on how retirees manage their post retirement challenges. It would be used as source of information for researchers as well to carry out further research studies.

From the study findings, it is anticipated pensioners to at least meet their life basic needs. Therefore, despite the observed and other challenges that might be there, voluntary members should be encouraged to secure themselves for the future.

1.7. Scope of the Study

The study was carried in Dar es Salaam region. The study covered how post retirement challenges affects the welfare of social security fund members in Dar es Salaam, explored and identified main challenges perceived to affect access to pension benefits in SSPF among the retired civil servants, it examined the extent to which the challenges are related with socioeconomic attributes of the retired civil servants and determined the extent to which the challenges encountered by civil servants affects welfare in the study area.

1.8. Organization of the Study

The study is organized into five chapters. Chapter one presents the background of the study, the problem statement, research objectives and questions, significance and scope of the study. Chapter two provides a survey of literature on post-retirement challenges to social security fund members. The third chapter details the methodology adopted for the study: the population, sample, research design, and instrument for data collection and procedures and model specification. Chapter four presents analysis, findings, results and interpretation. Chapter five presents discussion of the study findings and Chapter six presents summary, conclusions and policy recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

This chapter is reviewing literatures in an effort to understand what is already recognized with regards to the subject matter. It further presents the theoretical framework, empirical review and conceptual framework of the study.

2.2. Definition of Concepts

Household welfare

Welfare is generally defined as physical and material wellbeing of people. From economics point of view, Marshall (1890) did not consider wealth to be of all in economic activities. This is because for him, wealth is for man but man is not for wealth, therefore, he showed that human welfare is more important than wealth and that made him shift the definition of economics to welfare economics where man performs economic activities for earnings so that can spend the earnings on life demands to obtain maximum satisfaction. Household welfare is referred to wellbeing of family members in a household. According to Lekobane and Seleka (2014), among the key factors, education level and employment status of the household head determines the welfare of the household.

In this study, retired household welfare refers to their ability to spend on the household's life demands, that is, food, dependent's education, health and housing. The retired household welfare was measured by looking into the effect of old age pension through their level of consumption on food, dependants' education, health and housing. It was anticipated that an increase in spending/consumption reflects the increase in income and therefore the household will have high level of welfare.

Old age pension

According to Barr and Diamond, (2006) old age pension is the retirement benefit paid to members not only based on their contributions to the schemes but also on the length of the service period. In this study, old age pension refers to the terminal and

monthly benefits that are provided to the retirees by social security schemes when they hit the retirement age to enable them to meet their life demands.

Other social security scheme's benefits

The entitled benefits to retirees under the mandatory contribution scheme other than the old age pension are; death, survivors, education, gratuity, disability and withdraw benefits (PPF Annual Report, 2016). This study aimed to look into these benefits that retirees are entitled with, based on the policies and other characteristics of a social security fund. Other benefits that have been looked into include bonuses, health coverage, loans and housing benefits.

Post retirement income

In this study, post retirement income refers to formal and informal sources of income. Formal income refers to the sources that provide a retiree with reliable income such as business/entrepreneurship, shareholder and or other types of employment with reliable income acquired by the retirees after retirement. Informal sources refer to unreliable income from different sources including remittances (support from families). It is well known that family support is among the post retirement income that retirees depend on if did not plan well ahead of time. Ali (2014) also cautioned that if retirement is not well planned it would result to family arrangement as a source of income. Kazimoto and Mhindi (2014) also recommended that investment education need to be provided to members of social security schemes to enable them have additional income from other sources (business) and not depend only on pension as it was found not to be sufficient enough.

2.3. Theoretical framework

2.3.1. Positive Theory of Social Security

Most countries consider social security to have positive impact as it helps to redistribute income. Tabellini (2000) developed the positive theory of social security on the process of finding an answer to the question on why do majority of voters support a social security system that redistribute income towards a minority of the population (social security beneficiaries and poorest taxpayers). In this theory,

the importance of social security to the country is recognized as it contributes in reducing income inequality because it redistributes the income across and within the generations. Thus, both retirees who are the beneficiaries of the schemes and the poorest taxpayers in the community support social security.

Martin (1996) also supported the positive theory of social security as he claimed that social security schemes across the world link retirement benefits to retirement. He further explained that pensions are perceived as a way to encourage retirement when one hits the retirement age because aggregate output is higher if old age exits from services. According to him, working capability depreciates with age because the working skills decrease and in turn it affects by reducing the efficiency of the energetic ones. At that point, the old have to retire and the social security transfers encourage it.

The positive theory of social security is relevant for this study because when young people works, they devote their energy for efficiency and as a result generates higher aggregate output of an economy (Martin, 1996). According to the Public Service Retirement Benefits Act No.2 of 1999, a compulsory retirement age of a public servant is 60; however, recently the government has decided to increase the voluntary retirement age to 60 and 65 compulsories. In that case, the public servants keep their membership with pension schemes through contributions during their working period to be covered together with their beneficiaries when they retire.

The findings from this study revealed that, the retired civil servants acknowledge the role played by social security pension in their post-retirement life. The retirees have contributed to the social security schemes throughout in-service period and by the retirement time; they depend on pension as their main source of income because their strength and capability to work have gone down. Pension facilitates them to at least carter for their basic life demands such as food, health, housing and dependent's education.

2.3.2. The Permanent Income Hypothesis

The permanent income hypothesis was developed by Friedman (1957) to explain pre- and post-retirement living standards in straightening out the consumption stream. The theory posits that individuals consume a fraction of the permanent income in each period and that the average propensity to consume would equal the marginal propensity to consume. This predicts a consumption smoothing where a person's consumption is determined by his/her lifetime income, that is the expected long-term average income and not on the current income.

The theory suggests employees save money to ensure that they have resources for consumption smoothing after retirement. Retirees would depend on personal resources to cover themselves if were not protected by social security schemes of which it would be difficult to them as the ability and energy to work will have gone down. Moreover, if the retirees were not well prepared especially on investments through their savings to provide them with income by the time of retirement, then their consumption level will also be affected. This household behavior is described as the lifecycle model of savings (Munnell & Yohn, 1991).

This theory is relevant in this study as it is advised to save when still working and energetic before retirement and engages in business and investment to secure the future from uncertainties (Kazimoto & Mhindi, 2014). Meaning, people should invest on income generation, that is assets/properties including real estates, farming and other business opportunities while on service. This study revealed that investments assists public servants at retirement to complement their pension benefits rather than depending only on their pension funds and be distressed when their payments delays.

The findings from this study are consistency with this theory also because civil servants forego their current spending and save for the future through the contributions to social security schemes (Lachowska & Myck, 2015). Most of people hope to live up to the retirement period and that makes them not to focus only on the current income but also prepare for the future. At that point the retirees explained that despite being a mandatory for all formally employed persons to contribute to the

social security schemes in Tanzania (URT, 2010), they also find it ideal as they secured them with uncertainties in future. Moreover, it was found that retirees depend on other sources of income such as returns from investments for those who planned and own businesses as well as family support to supplement their needs. This is because they claimed the pension funds to be not sufficient enough to ensure consumption smoothing as it is noted that income at retirement is reduced compared to in-service period (Paulin & Duly, 2002).

2.3.3. The Lifecycle Hypothesis Theory

The lifecycle hypothesis theory deals with economic decisions on retirement saving in particular on the rationalization of an individual's income in order to maximize its utility over his lifetime (Deaton, 2005). The theory posits that households accumulate savings during their working careers up to their retirement, and de-accumulate wealth thereafter. This type of saving behavior has impact on retirees and the economy as it enables households to smooth their marginal utility of consumption over the lifecycle and on the other hand contributes to an economic growth.

There is a relationship between aggregate and individual saving. Employees save and pensioners or retirees disserve (spend more than what they earn), in economy, the balance between saving and disserving determines aggregate saving. In a growing economy, each of the subsequent generation of employees is usually larger, richer and saves more money than the preceding generations. Saving by current employees, therefore, surpasses disserving by the retirees, who are both fewer in number and with low income. Thus, in a growing economy, aggregate saving is positive (Deaton, 2005).

The life cycle theory is quite relevant in the current study because contributions to social security fund by employees are a form of saving. It supports consumption at retirement and contributes to economic growth through SSPF's investments in different activities such as in real estates (Lachowska & Myck, 2015).

Moreover, the study findings also revealed that most of the retirees' income is reduced as the ability and energy to work has gone down (Paulin & Duly, 2002).

Thus, retiring from their jobs makes them depend on pension as their main source of income to cover for their life demands (Kazimoto & Mhindi, 2014; Reis, Silveria, Braga, & Costa, 2014). The retirees also depend on other sources of income supplement their needs. This aligns with the life cycle theory because during the in-service period workers accumulate wealth, and their ability to spend is also high as they generate more income. However, when they retire they de-accumulate wealth because they only depend on what they have saved so far, their pension being among, since they are not energetic and active enough to generate more income.

Nevertheless, it was observed that at the early retirement time most of the retirees spending is high because they still have some savings and the terminal benefits but the spending decreases as time goes. It is also noted from studies that, pre-retirement and retirement expenditures differ due to the difference in income (Paulin & Duly, 2002). Some of the retirees reported constant living standard as the in-service period due to income that they generate from other sources such as business and family support.

2.4. Empirical Literature Review

In this section, the review of literatures to show what other studies say in relation to this study is presented. This section will show what other researchers have done so far and the gap that has been further investigated/analyzed in this study.

ACFS and AIST (2016); Butrica, Goldwyn and Johnson (2005); Paulin and Duly (2002) did their studies to evaluate the retirees' expenditure pattern through consumption. They aimed to compare their expenditures when in services versus retirement period in order to find out whether person's spending decreases when they retire as anticipate due to decrease in income. The retirees reported constant expenditures at early retirement with a slight decrease in some spending such as food and increase in others. Moreover, it is expected retirees spending to be higher than their income because of receipt of income from other sources such as family and business.

Filho (2012) analyzed rural social security and showed that granting retirement pensions decreased the participation rate in the labor market and increased school enrollment of children aged 10 to 14 years. This is due to the reason that income from retirement and pensions will enable the retirees to cover for their dependent's education and their life demands. In that sense, children would not have to work to take care of their elders.

Reis et al. (2014) found that retirement pension income contributes to increased income distribution inequality in Brazil. According to the survey results, income derived from social security accounted for the second largest share of income in the Gini coefficient calculation, behind only primary job income. According to Holzmann and Hinz (2005), the contribution of social security or pensions schemes to relieving poverty in developing countries has been long advocated by the ILO; and more recently, the World Bank. Social pensions have been credited with positive developments in those countries that have introduced them. Lekabane and Seleka (2016) discovered that social pensions have contributed to improving women's health, fighting rural poverty, heightening the status of older people in the family and increasing school enrolment.

Bailey (2004) argues that income security constitutes one of the major objectives of social insurance in terms of not only protecting people in their old age but also protecting workers against shocks from unemployment. While non-contributory social pensions and other forms of social assistance are becoming increasingly important, contributory social insurance systems are also expanding to cover those in the informal sector.

Ndiaye, Soors and Bart (2007) explained that among the key role of social security is to provide health care assurance to the individuals. Most African countries adopted policies providing free health care during the 1960s, but the structural adjustment programs of the 1980s largely abandoned this form of social protection. While formal insurance systems provided protection for a small minority of the population, health-care access deteriorated for the majority in the informal sector. The introduction of user fees created conflicting impacts, increasing resources in some

areas but imposing severe access barriers for many poor households. Inspired by European social health insurance systems, African countries began developing models of Community Health Insurance (CHI) from the late 1980s, and these approaches have proven increasingly successful. Its applicability is that individuals or households join a not-for-profit structure voluntarily to share the financial risk of individual health-care expenditure where they agree on the services to be covered and the contribution charged (Ndiaye et al., 2007).

Social security is used as a tool used to administer and control employment. It is used in organizations to achieve and maintain certain levels of work output. Armstrong (2010) states that social security facilitates retirees to readjust and cover themselves on social needs through the provided retirement benefits. It increases workers' self-confidence; as they are aware that they are secured against future economic and financial risks hence increase their productivity. As a result, it leads to the growth of the organization as a whole.

Apart from that, retirement benefit is a tool that employers apply to chart-out their corporate social responsibilities (CSR) and thereby attract goodwill. Moreover, social security nowadays plays progressively more significant role in the economy of any nation for the reason that the funds put aside for as retirement benefit could be utilized for the establishment of small enterprises. It can also relieve pressure on the company for individual assistance by instilling in employees a sense of confidence at challenging responsibilities for their future (Armstrong, 2010).

Sterns (2006) said that if well-planned pension schemes could be used to discourage labor turnover. If both the employers and employees remit contributions properly to the social security schemes, then it serves as a general area of joint interest and cooperation and therefore helps to foster better employment relations. Conversely, in the provision of pension as retiree terminal benefits the relationship between the employer and the employee is over and over again affected by such factors as: pensionable and gratuity age, the amount or the percentage of the proposed pension, method of financing, administration of pension and psychological pressure.

In social security, the administration of pension consists of five vital constituents. These include flexibility, amount of benefits, finance and contribution to cost of pension and gratuity and death benefits. Different schemes offer various strengths, weaknesses, opportunities and threats (SWOT) to its members (Sterns, 2006).

In the context of Tanzania, an overall picture shows that many people are not covered by the social security fund schemes because they are designed to be mandatory for formal employees hence makes the informal employees not to put much of consideration on it (ILO, 2008). This results to a small coverage of the population by the existing social security institutions. This refers to most prominent institutions like NSSF, PPF, LAPF and PSPF. Findings from Dau (2003) shows that the general performance of the existing social security institutions in Tanzania is rather poor in terms of coverage, provision of quality benefits and efficiency. Many problems limit provision of adequate social protection including lack of budgetary provision. Museya (2014) and URT (2010) on the other hand, show that the government faces serious financing problem. They also stipulated that government always face management problem in dealing with the effective provision of social security services to older people. “Too big to fail is too big not to fail”, that is, when social security get that big, they are inevitably going to fail, because its challenging to to be managed efficiently. Currently, the government fails to allocate sufficient budgetary to adequately meet the needs of the older people.

Mchomvu et al. (2002) estimate that, the formal security schemes cover only 6 percent of the population in the country and about 5 percent of the active labor force (including NHIF). In terms of gender, the majority of the people covered are men since women only constitute a very small minority of the work force in the formal economic sector. The general performance of the existing social security institutions in Tanzania is rather poor in terms of coverage, provision of quality benefits and efficiency.

Mitchell and John (2001) study the potential economic consequences of increasing the early retirement age for workers with health limitations. The study discovers that in the health and retirement study cohort of men and women aged 51–61, the

majority are eligible to apply for disability insurance, but some men, and 20 percent of women, are not. The main reason for ineligibility is having insufficient quarters of coverage to qualify for the benefits.

Moreover, the study revealed that increasing the early retirement age, would reduce exits from the work force at age 62 by nearly 20 percent (currently it is around 60 percent), with little change in disability insurance applications.

In their study, Lekabane & Seleka, (2016) found that in issues of economic security, the loss and or insufficiency income could lead to economic insecurity. It is noted that, people that live long faces economic uncertainties the most because they consume and beyond what they have accumulated while energetic to sustain themselves and their dependents.

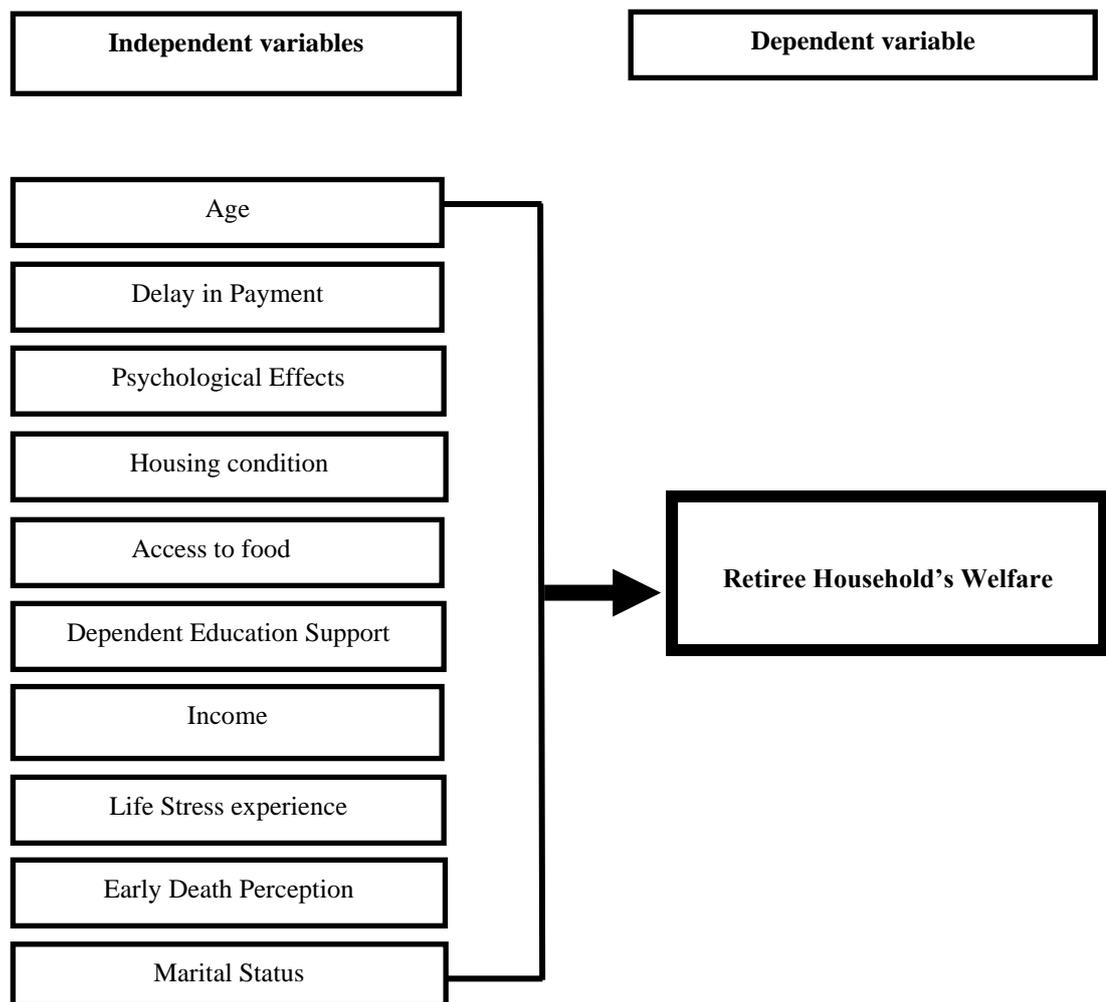
It is anticipated that retirees live at least comfortable life by accessing food, shelter and health care through the support of the pensions when they retire. This is because it is expected their income to go down especially when they depended only on their pension compensation. However, as presented in the literatures above, studies discussed the issues around challenges faced by the retirees, finding out how to help workers to manage their post retirement life as well as evaluating the retirees' expenditure pattern to find out whether it increases or decreases when they retire comparing to their expenditure when in service (ACFS & AIST, 2016; Butrica, et al., 2005; Paulin & Duly 2002). Other studies covered the contribution of social security funds in decreasing likelihood of child labor (Filho, 2012) and issues around pension funds management and contributions of the funds in poverty reduction, economic development and income distribution (Alem, 2015; Holzmann & Hinz, 2005; Lekabane & Seleka, 2016; Museya, 2014).

Mitchell and John (2001) studied the potential economic consequences of increasing the early retirement age, whilst Sterns (2006) found that social security schemes can be planned well to reduce jobs turnovers. Other studies focused on the coverage of the social security funds, their services, roles, efficiency and investments made by the funds for income generation including encountered challenges (Armstrong, 2010; Bailey, 2004; Dau, 2003; Ndiaye et al., 2007).

There is no study that have focused specifically in understanding how post-retirement challenges affects welfare of social security fund members. It is in this regard this study was conducted to fill this gap.

2.5. Conceptual Framework

Figure 2.1: Conceptual Framework



Source: Own research, 2018

The conceptual framework in figure 2.1 shows the relationship among and between variables. The model stipulates how the independent variables affect the welfare of the retiree household's social security member.

Studies have explained different ways of measuring retirees' welfare including their level of income and expenditure patterns, for instance, Reis et al.(2014) evaluated the

welfare level of households through income provided by social security programs in state of Minas Gerais, Brazil. Moreover, ACFS and AIST (2016) and Butrica et al. (2005) looked into the retirees' expenditure patterns through their pension income and income from other sources including family and business in measuring the retirees' welfare. This study measures the welfare of the retired household in terms of their ability to access their household's life demands, that is, food, dependent's education, housing and health/medical care. Moreover, age, marital status, delay in pension fund's payment to retirees, psychological effects, income, life stress and early death perception were also looked into relation with the retiree household's welfare.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

This chapter covers various areas including type of the study, area of the study, study population, unit of analysis, types and sources of data, data collection and analysis methods.

3.2. Research Design

Design of a study plans ahead on the methods and techniques to be used in collecting and analyzing data taking into account the research objectives as well as being economical in the resources to be used (Kothari, 2004). Quantitative and qualitative designs were employed to obtain required information in line with the set objectives from the targeted respondents.

For quantitative component, questionnaires were set to obtain information that was quantified. Questionnaires were aimed at capturing data that was needed to address the indicators listed under the retiree household's welfare, that is, age, delay in payment, psychological effects, housing condition, access to food, dependent education support, income, life stress experience, early death perception and marital status.

For qualitative component, a methodological approach, that is questionnaires set to get information from the retirees on their perception in life after retirement were adopted. This helped to get more information on the challenges or achievements one has experienced with his/her pension in terms of having an access to food, housing, dependents education and health. Moreover, this assisted to get information whether the retirees depended on other sources of income to access their needs.

Questionnaires focused on various aspects, including the socio-demographic characteristics of the retirees, how pension support their life and their perception on life after retirement, just to mention a few. Documentary review (from various

sources including social security schemes reports, news, policies and previous related studies) were employed to capture secondary data.

Cross sectional research, design was adopted for systematic collection of primary data and presentation that facilitated in finding out the effects of pension to retiree household's welfare through their consumption with limited sample size. Further, data were analyzed using Statistical Package of Social Sciences (SPSS) software and or excel.

3.3. Study Area

This study was conducted in Dar es Salaam region. The reason for conducting the study in Dar salaam is owing to the conveniences as regarding to time, resources and access as noted by (Kothari, 2004) to be important factors when undertaking a study. This area of study was also preferred because it was anticipated to have high population of retirees where information required for the study could be easily collected.

3.4. Unit of Analysis and Study Population

The unit of analysis in this study is a retired household. Information were obtained on how a retired household welfare is affected by pension fund. Targeted population in this study is retired household pensioners in Dar es Salaam. The composition of the retired household includes the retiree and his/her family members including husband/wife, children and grandchildren.

3.5. Sample size and Sampling Technique

Sampling is the process of selecting a number of individuals or objects from a population, such that the selected group contains elements, which are representative of the characteristics found in the entire group. As it is well known, population is a complete set of units to be studied (Kothari, 2004).

This study used a purposive sampling technique, targeting the retiree's households in Dar es Salaam. The study used a sample of 186 respondents (breakdown for each

district is indicated in Table 3.1 below), which was expected to give an informative data. The sample size was estimated from Creative Research Systems website where sample size calculator is provided. The SSRA's annual report 2015/16 indicates that there were 126,358 pensioners on the reporting period. Therefore, taking 95 percent confidence interval at 5 percent confidence level, which was expected to be used in this study, estimated sample size from the sample size calculator, is 186 respondents. Moreover, taking that into account and other associated factors in data collection such as time and cost, that number of respondents was anticipated and considered to be representative and manageable. According to Kothari (2004: 56) sample size should be optimal in a way that it fulfills sampling requirements, which is being efficient, representative, reliable and flexible. The selected case would meet these requirements. The total population of pensioners for Tanzania was used because the pensioners number is not provided regional wise in the SSRA report.

Table 3.1 indicates the expected number of respondents per district, totaling 186. Due to the reason that the 2015/16 SSRA annual report does not indicate the number of retirees regional/district wise, the 2012 census report was used to get the population size for each district where the estimated number of respondents district wise was calculated from. The district's population size is; Kinondoni 1,775,049 Ilala 1,220,611 Temeke 1,368,881 Ubungo 56,015 and Kigamboni 30,496 (URT, 2012) which are rationed to 1.99:1.35:1.54:0.06:0.03 and results to 74,51,57,2,2 number of estimated respondents respectively.

Table 3.1: Sample Distribution

District	Number of respondents
Ilala	51
Kinondoni	74
Temeke	57
Ubungo	2
Kigamboni	2
Total	186

Source: Own research, 2018

3.6. Type and Sources of Data

3.6.1. Primary data

Primary data is that information which is collected afresh and for the first time, and thus happen to be original in character. Information is gathered directly from respondents. This is done through interviews, questionnaires, observation, focused group discussions and experimental studies (Kothari, 2004; Kombo & Tromp, 2011).

In this study, primary data were collected from retired pensioners through administered structured and unstructured questionnaires with both open ended and closed questions. Primary data captured the variables that facilitated to get information on how pension funds effects welfare of retiree's household by looking onto the set variables; age, delay in payment, psychological effects, housing condition, access to food, education, income, life stress experience, early death perception and marital status.

3.6.2. Secondary data

Secondary data are the ones, which have already been collected by someone else and have already been passed through the statistical process. They are collected neither directly by the user nor specifically for the user. Secondary data may be either published or unpublished data (Kothari, 200; Kombo & Tromp, 2011).

Secondary data were collected from various sources such as reports, journals, articles and others, which were already done in relation to this study. These made it easier for a researcher to analyze the data systematically. Documentation is conformation that some facts or statements are true with documentary evidence; therefore, these data complemented the primary data in the sense that they gave more information on related issues in this study.

3.7. Data Collection Methods

This refers to the ways employed by the researcher during the whole process of data collection.

3.7.1. Questionnaires

A questionnaire is the method of collecting data through a number of questions printed or typed in a definite order (Kothari, 2004:100). Structured and unstructured questionnaires were administered through interviews to selected retirees were because they are simple to administer and relatively cheaper to analyze (Kothari, 2004).

3.8. Measurement of Variables and Data Analysis plan

3.8.1. Measurement of Variables

From the conceptual definition (construct), variables must be operationalized in order to be measured. This study attempted to find out how post-retirement challenges affects welfare of social security fund members by looking into challenges that are perceived to affect access to pension benefits in SSPF among the retired civil servants, to examine the extent to which the challenges are related to socioeconomic attributes of the retired civil servants and to determine the extent to which the challenges encountered by civil servants affects welfare.

In observation of the challenges faced by the retirees, questionnaires were set to obtain important information including how long it takes to prepare and complete the pension claim submission and how many days/months in average takes to get the pension after claims submission. The obtained information was quantified and analyzed as per the presented data analysis plan below.

Retiree's perception on the current SSPF schemes would be informative on the challenges they face and to what extent they perceive the effectiveness of the schemes.

Studies have explained different ways of measuring retirees' welfare including their level of income and expenditure patterns, for instance, Reis et al. (2014) evaluated the welfare level of households through income provided by social security programs in state of Minas Gerais, Brazil. On the other hand, ACFS and AIST (2016) and Butrica et al. (2005) looked into the retirees' expenditure patterns through their pension income and income from other sources including family and business in

measure the retirees' welfare. In this regard, determination of the welfare of the retiree's household was done through their ability to access their life demands that is, food, dependent's education, housing and health. Questionnaires were set to the respondents to identify how pension facilitates them in accessing the needs and if they have other sources of income that they depend on to compliment the pension for their consumption smoothing.

General questions were administered to the respondents to obtain more qualitative information on their thinking on social security schemes and difference in life status when at work compared to when retired. These would give more information on retiree's life status in terms of the challenges they face, how do they adhere to the challenges and what is their general perception on the pension scheme's support.

Table 3.2: Definition/Measurement of Variables

Determinant	Units	Description
Retiree households' welfare	1 or 0	1=If pension fund is perceived to improve household's welfare, 0=Otherwise
Delay in Payment	1 or 0	1=If respondents experienced delays in payments of social funds, 0=Otherwise
Psychological Effects	1 or 0	1=Retiree is perceived to have been affected psychologically by not receiving pension as required, 0=Otherwise.
Age	Continuous	Age of retirees (household head)
Age squared	Continuous	Squared age of the household head/retirees
Marital status	1 or 0	Marital status (1=Married, 0= otherwise)
Housing condition	1 or 0	1=If the beneficiary depends on pension fund for housing, 0= otherwise
Access to food	1 or 0	1=If the beneficiary depends on pension fund for access to food, 0=Otherwise
Dependent Education Support	1 or 0	1=If the beneficiary depends on social fund to finance education expenditure, 0=Otherwise
Income	1 or 0	1=If the retiree depends on other sources of income to finance life's demands, 0=Otherwise
Life stress experience	1 or 0	1=If a retiree experienced any life stress when pension fund given does not meet expectations, 0=Otherwise
Early Death Perception	1 or 0	1=Early death perception of a retiree is caused by inadequate pension fund, 0=Otherwise
Sex	1 or 0	1 = 1f Male, 0 = Otherwise

Source: Own research, 2018

3.9. Econometric Model

To determine the post-retirement challenges facing social security fund's members and their implications to the retiree household's's welfare, a binary logit model was used. The dependent variable is a dummy for retiree household's welfare. This means that, Y_i has any two possible values, 1 for retiree household's welfare and 0 otherwise. The model has been explained clearly by Gujarati (2004) in the illustration below:

Recall the Linear Probability Model (LPM)

$$P_i = E(Y = 1|X_i) = \beta_0 + \beta_1 X_i \quad (1)$$

Where X is an explanatory variable, say (age, delay in payment, psychological effects, housing condition, access to food, dependent education support, life stress experience, income, early death perception, marital status) and Y = 1 means an individual/household well-being. Now let us consider the following household welfare

$$P_i = E(Y = 1|X_i) = \frac{1}{1 + e^{-(\beta_0 + \beta_1 X_i)}} \quad (2)$$

for ease understanding, we write (2) equations; -

$$P_i = \frac{1}{1 + e^{-Z_i}} = \frac{e^{Z_i}}{1 + e^{Z_i}} \quad (3)$$

Where; $Z_i = \beta_0 + \beta_1 X_i$

The equation (3) is known as (Cumulative) Logistic distribution function. The logistic model has been used extensively in analyzing the effect of pension to retirees' welfare. Cramer and Ridder (1988) articulate more on the theoretical and practical details of logit and probit models.

Note: It is easier to verify that; Z_i lies between $-\infty$ to $+\infty$ and P_i lies between 0 and 1 ($^{10}Z_i \rightarrow +\infty, e^{-Z_i}$, tends to zero and as $Z_i \rightarrow -\infty, e^{-Z_i}$, increases Indefinitely.

Recall that, $e = 2.71828$)

Therefore, P_i is nonlinearly related to Z_i . Since P_i is nonlinearly in equation 2 above, not only in X but also in β 's, hence we cannot use Ordinary Least Squares (OLS) in estimating the parameters. However, this can be linearized as follows; -If P_i is the probability of improved household wellbeing, given in equation (3), then $(1 - P_i)$ is the probability of poor household's wellbeing.

$$1 - P_i = \frac{1}{1 + e^{Z_i}} \quad (4)$$

Therefore, we can write as; -

$$\frac{P_i}{1-P_i} = \frac{1+e^{Z_i}}{1+e^{-Z_i}} = e^{Z_i} \quad (5)$$

Now $\frac{P_i}{1-P_i}$ is simply the odds ratio in favor household wellbeing. The ratio of the probability that household wellbeing to the probability of poor household wellbeing. Thus, Idre (2016) explains that if the probability of success is $P_i = 0.8$, then the probability of failure is $(1-0.8) = 0.2$. The odds of success are defined as the ratio of the probability of success over the probability of failure. That is the odds of success are $0.8/0.2 = 4$, that is to say the odds of success are 4 to 1 (household's wellbeing). If the probability of success is 0.5, i.e. 50-50 percent chance, then the odds of success is 1 to 1.

Therefore, taking the natural logarithm of equation (5) above we get; -

$$L_i = \ln\left(\frac{P_i}{1-P_i}\right) = Z_i = \beta_0 + \beta_1 X_i \quad (6)$$

Hence, L_i is the log for the odds ratio, is not only linear in X, but also (from estimation viewpoint) linear in the parameters (from linearity assumption of OLS does not require that the X variable be necessarily linear. Therefore, we can have X_1, X_2 etc. as regressors in the model. For the purpose of this study, it is linearity in the parameters that is crucial). L_i is called **logit**, and hence the name '**logit model**' for models like equation (6)

In the model above, we shall concentrate more on the probability of success (improved household's wellbeing).

3.9.1. Assumptions of Binary Logistic Regression Model

Logit model assumes that no important variables are omitted, meaning that all relevant variables are included in the model. In addition to that the model assumes to exclude extraneous variables. Furthermore, the model assumes that the

independent variables are measured without error, the observations are independent, and the independent variables are not linear combinations of each other.

3.10 Log Likelihood Equation for Success

3.10.1 Likelihood Function

Efron (2016) defines likelihood function as a function of the parameters of a statistical model. In other words, the likelihood of model parameters given some observed outcome, that is the sample, is equal to the probability of those outcomes given the model and its parameters values.

The likelihood function for a statistical model is described as;-

$$L = \prod_{n=1}^N f(y_n | y_{n-1}, y_{n-2}, \dots, y_1, \beta_1, \beta_2, \dots, \beta_k)$$

Where;

L : is a likelihood function

$f()$: is the conditional probability density function

y_n : is the value of the time series at time n.

$y_{n-1}, y_{n-2}, \dots, y_1$: are the past values of the time series at time n.

$\beta_1, \beta_2, \dots, \beta_k$: are the parameters of the statistical model.

3.10.2 Log Likelihood Function

Efron (2016) defines log likelihood function for statistical model as;

$$\ln(L) = \sum_{n=1}^N \ln f(y_n | y_{n-1}, y_{n-2}, \dots, y_1, \beta_1, \beta_2, \dots, \beta_k)$$

Where;

$\ln(L)$: is the log-likelihood function

$\ln f ()$: is the natural log of the conditional probability density function

y_n : is the value of the time series at time n.

$y_{n-1}, y_{n-2}, \dots, y_1$: are the past values of the time series at time n.

$\beta_1, \beta_2, \dots, \beta_k$: are the parameters of the statistical model.

Williams (2016) defines P_i as the probability of observing whatever value of Y , let's say household wellbeing would actually be observed for a given observation, that is,

$$P_i = \left\{ \begin{array}{ll} P(y = 1 \mid x_i) & \text{if } y_i = 1 \text{ is observed (Success)} \\ 1 - P(y = 1 \mid x_i) & \text{if } y_i = 0 \text{ is observed (failure)} \end{array} \right\}$$

Zivot (2009) defines likelihood function as the joint density treated as a function of the parameter β . Therefore, as the probability of household wellbeing (success) occurs for case 'i' was 0.7, and the event did occur, then $P_i = 0.7$. Otherwise, $P_i = 0.3$ would be failure. However, in this case we have put more concentration on the probability of success (household wellbeing). If the observations are independent, the likelihood equation is given by;

$$L(\beta \mid y, X) = \prod_{i=1}^N P_i \quad L(\beta \mid y, X) = \prod_{i=1}^N P_i$$

Therefore, the likelihood tends to be an incredibly small number, and it is generally easier to work with the log likelihood.

Hence the log likelihood equation for success is given by; -

$$L(\beta \mid y, X) = \prod_{i=1}^N \ln P_i$$

The log likelihood equation can easily be computed, the P_i and the log of P_i effective when the study applies STATA as statistical software package for analyzing his observations/data collected from the field.

CHAPTER FOUR

PRESENTATION OF FINDINGS

4.1. Introduction

This chapter presents and discusses the results on the post-retirement challenges facing members of social security pension funds and their implications on the retiree household's welfare. This chapter is divided into three sections. Section 4.2 presents descriptive statistics, which includes background information of the respondents and analysed data on the challenges facing members of social security pension fund in accessing their pensions. Section 4.3 discusses the results and interpretation of the logistic regression estimates on factors that explain how the challenges in accessing pension funds affects the retiree household's welfare.

4.2. Descriptive Statistics

4.2.1. Background Information of the Respondents

In this study, responses were obtained through 8 main structured and unstructured questionnaires to 186 retirees in Dar es Salaam as per the sample distribution in Table 3.1 above.

Among the 186 interviewed respondents, 80 (43 percent) were male and 106 (57 percent) were female, see Table 4.3 below;

Table 4.3: Gender of the Respondents

Item	Frequency	Percentage
Male	80	43
Female	106	57
Total	186	100

Source: Own research, 2018

Table 4.4 below shows that out of 186; 85 (45.7 percent) were married, 32 (17.2 percent) divorced, 68 (36.6 percent) widowed, and 1 (0.5) found to be single.

Table 4.4: Marital Status of the Respondents

Category	Frequency	Percentage
Single	1	0.5
Married	85	45.7
Widowed	68	36.6
Divorced	32	17.2
Total	186	100

Source: Own research, 2018

In additional, the respondents were found to be 122 (65.6 percent) retirees registered with NSSF, 14 (7.5 percent) PSPF, 34 (18.3 percent) LAPF, 13 (7 percent) PPF and 3 (1.6) GEPP, see Table 4.5 below;

Table 4.5: Respondent's Registration Status with Pension Schemes

Pension scheme	Frequency	Percentage
NSSF	122	65.6
PSPF	14	7.5
LAPF	34	18.3
PPF	13	7
GEPP	3	1.6
Total	186	100

Source: Own research, 2018

The questionnaires were administered to respondents who were employed in various positions, that is, 101 (54.3 percent) in clerical jobs, 38 (20.4 percent) were at managerial position, 13 (7 percent) military position, 8 (4.3 percent) were at risk jobs (factory workers, ship hauling crew, marine deck crew and port-cargo security) and 26 (14 percent) from other professionals including teachers and nurses, see Table 4.6 below;

Table 4.6: Job Characteristics of the Respondents

Job category	Frequency	Percentage
Clerical jobs	101	54.3
Managerial position	38	20.4
Military position	13	7
Risk jobs	8	4.3
Other Professionals (teachers, nurses etc.)	26	14
Total	186	100

Source: Own research, 2018

Table 4.7 below shows 165 (88.7 percent) respondents had their own business (self-employed) while those without own business were 21 (11.3 percent). In addition to this, those who own their own business, 159 (96.4 percent) respondents explained that, their business provides them with substantial amount to take care of their needs while 6 (3.6 percent) explained that the business is not sufficient enough but they supplement their demands with the pension and support from families

Table 4.7: Business Ownership of the Respondents

Self-business ownership			Is the business satisfactory in taking care of the respondents needs?		
Item	Frequency	Percentage	Item	Frequency	Percentage
Self-business	165	88.7	Satisfactory	159	96.4
No self-business	21	11.3	Non-satisfactory	6	3.6
Total	186	100		165	100

Source: Own research, 2018

Moreover, out of 186, 107 (57.5 percent) of the interviewed respondents acknowledged to have support from the families to cover for their needs while 79 (42.5 percent) had on family support, see Table 4.8 below;

Table 4.8: Status of Family Support to the Respondents

Category	Frequency	Percentage
Family support	107	57.5
No family support	79	42.5
Total	186	100

Source: Own research, 2018

In this study, questionnaires were administered to 186 respondents (tables 3 to 8 gives background information of the respondents) to find out the post-retirement challenges affecting members of social security pension fund and their implication on the retiree household's welfare.

In order to find out the importance of pension funds as perceived by the pensioners, 156 (83.9 percent) acknowledged significance of the pension because it supports them on their daily needs at least as intended to while 30 (16.1 percent) claimed to be insignificant. Among the reasons of the insignificance was that the pension fund is

not sufficient enough to cover for the entire needs as anticipated and hence require the retirees to have an additional income to cater for the demands.

To find out how pension influence the pensioners' welfare, the respondents were questioned on how pension supports them to access their daily basic needs, that is, food, housing, medical care and the dependent's education. It was found that 100 percent acknowledged the importance of pension in accessing food where 108 (58.1 percent) out of that agreed and 78 (41.9 percent) strongly agreed.

The study also found out that 28 (15.1 percent) of the respondents strongly disagreed the support of pension for housing, 60 (32.3 percent) disagreed, 63 (33.9 percent) agreed and 36 (19.4 percent) strongly agreed. Pensioners who acknowledged the support in housing claimed to use their terminal benefits to finalize their constructions that they have started. The ones who started construction with the pension was unsatisfactory to them as they claimed not to be sufficient enough to accomplish the constructions. Others receive pre-retirement housing benefits from their schemes. 15 (8.1 percent) strongly disagreed the pension support on medical care, 87 (46.8 percent) agreed and 98 (52.7 percent) strongly agreed.

Most of the respondents were found to have medical insurance cover from their pension schemes. Retirees who are taking care of their dependents education responded to the questions as follows; 18 (9.7 percent) strongly disagree, 52 (28 percent) disagreed, 37 (19.9 percent) agreed and 79 (42.5 percent) strongly agreed. Respondents who disagreed pension support on their dependent's education depends on other sources of income to take care of it while some of the ones who agreed is sufficient uses other sources to supplement the pension.

From the 159 respondents who acknowledged having great support of their additional income from their own business in their daily demands (see Table 4.7); 14 said that the income supports their access to medical care, 157 to cover for their dependent's education, 150 to access food and 126 for housing/shelter.

In addition, from the 107 respondents that receives remittances, that is, family support in Table 4.8 above; 3 acknowledged that the support cater for their health demands, 96 on dependent's education, 102 food and 57 for housing. Most of them

also urged that sometimes business do not generate enough income to cover for all the needs given that they have dependents to take care of (extended families)

Results shows that 151 (81.2 percent) of the respondents perceived the pension fund to be adequate to the retirees as planned, however, they also depend on other sources of income to supplement the pension in covering for their needs. 35 (18.8 percent) claimed pension not to be sufficient for their life demands; it was found that most of them are the retirees who have no other sources of income rather than pension.

Table 4.9: Variable Descriptions

Variables	Obs	Mean	Std. Dev.	Min	Max
Retired Household Welfare	186	0.688	0.464	0	1
Delay in Payment	186	0.478	0.500	0	1
Psychological Effects	186	0.349	0.478	0	1
Housing Condition	186	0.742	0.439	0	1
Access to food	186	0.672	0.471	0	1
Dependent Education Support	186	0.209	0.408	0	1
Income	186	446182.8	179645.1	40000	800000
Life Stress Experience	186	0.075	0.264	0	1
Early Death Perception	186	0.220	0.416	0	1
Age	186	34.79	8.16	18	52
Sex	186	0.624	0.486	0	1
Marital Status	186	0.194	0.396	0	1
Age squared	186	1276.57	602.69	324	2704

Source: Own research, 2018

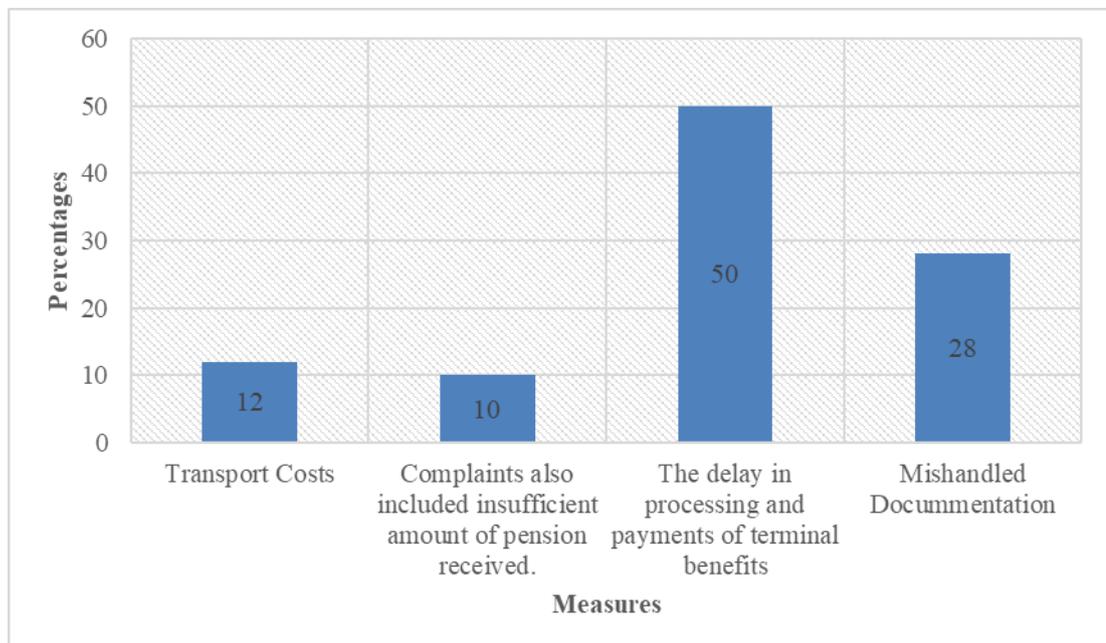
4.2.2. Main challenges facing retirees in accessing pension benefits

Main challenges of accessing pension benefits in SSPF as perceived by the retired civil servants were examined. The researcher asked the respondents several questions regarding the challenges they get in accessing their pension.

The results shows that, 12 percent of the respondents explained transport costs is one of the challenge they get in accessing pension, 10 percent of the respondent complained about insufficient amount of pension received, 50 percent of the respondent explains that, delaying in processing and payments of terminal benefits, especially for the retired who start to make a follow up for their benefits is a

problem, 28 percent explains that there is a problem of mishandled documentation of their data when make follow up of their pension records (see Figure 4.2 below).

Figure 4.2: Main challenges facing retirees in accessing pension benefits.



Source: Own research, 2018

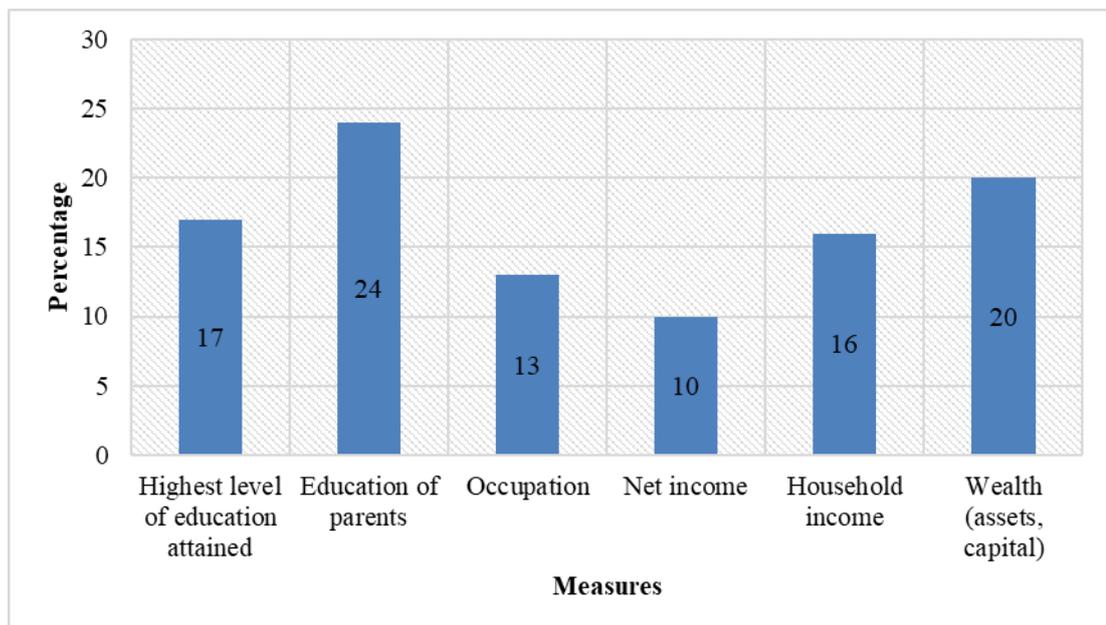
4.2.3. Challenges in accessing pension benefits and their socioeconomic attributes

To examine the extent to which the challenges in accessing pension relate with socioeconomic attributes of the retired civil servants, the study conducted interviews with pensioners of NSSF, PSPF, LAPF, GEPF and PPF, which provides social benefits to the pensioners' and their beneficiaries. Several pensioners' socioeconomic attributes were investigated, including highest level of education of the pension beneficiary, education of the parent, occupation, net income, household income, possession of wealth by the retirees such as assets and capital.

The results show that 17 percent of the respondent explained the highest level of education attained causes the variation, whereas 24 percent of the respondents explained education level of their parents is low, and that makes it a problem to

understand issues pertaining to social fund. 13 percent explained occupation of the beneficiary causes a variation as retirees who worked at high paying institutions or jobs or at higher positions are less likely to face the challenges especially if planned well for the retirement compared to the ones with low paying jobs. 10 percent explain the net income of the beneficiary causes a variation, for example most of the individual with small business are more likely to be affected compared to ones with well-paying and stable business. 16 percent of the respondent explained that household income causes the variation, where as 20 percent of the respondent explains wealth such as assets, capital and other wealth sources is the source of variation (See Figure 4.3)

Figure 4.3: The challenges in accessing pension benefits and socioeconomic attributes.



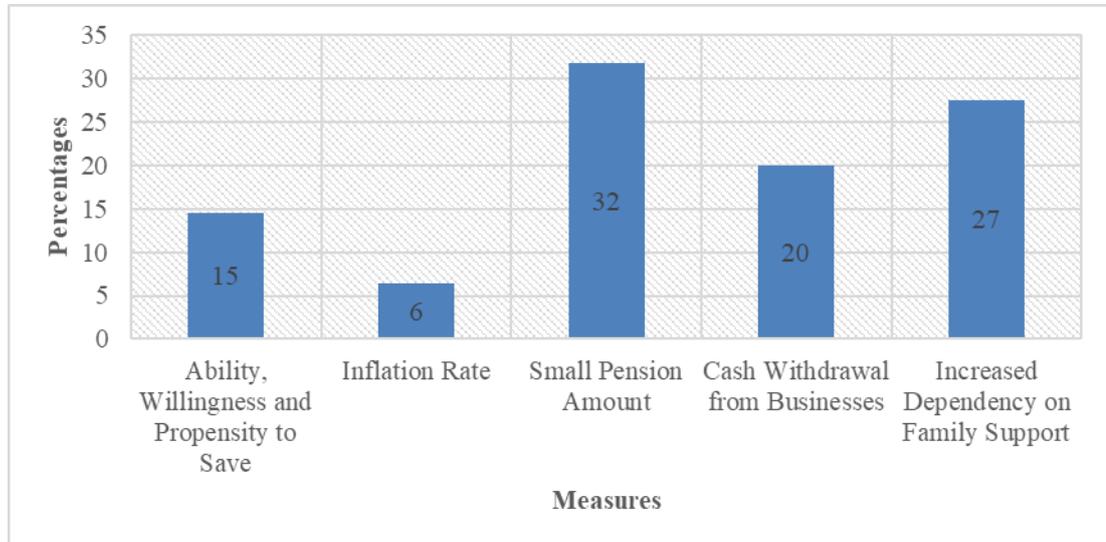
Source: Own research, 2018

4.2.4. Challenges of accessing pension funds and their effects on household welfare

To find out the extent to which the challenges of accessing pension funds affect household welfare of the retired civil servant, the researcher was interested to know what real affect their welfare if they have received their terminal pension benefits and they continue receiving their monthly pension benefits.

The findings revealed that, 15 percent of the respondent explained ability, willingness and propensity to save is the problem to most retirees, that is, the ability to save, which in turn depends on a households' disposable income. This refers to the willingness and propensity to save as influenced by the socioeconomic factors and the opportunity to save and earn a return on the savings. 6 percent of the respondents explained that inflation is the challenge because it affects the value for money contributed while on service as they receive less money than what they have been contributing to the SSPF schemes. 32 percent of the respondents claimed to receive insufficient amount of pension, which do not suffice their life demands. It was observed that the insufficiency of the funds is because most of the families are extended families where the retirees have a number of family members' dependents to take care of. Moreover, 20 percent of the respondents explained that the insufficient fund from the schemes to support their needs subjects them into withdrawals of funds from their investment, which affects their businesses. Nevertheless, about 27 percent of the respondents explained that they depend on family support, which serves as an additional income to take care of their needs, as pension itself isn't sufficient enough (See Figure 4.4).

Figure 4.4: The challenges of accessing pension funds and their effects on household welfare.



Source: Own research, 2018

4.3. Results of the Logit Regression Model

For the analysis to carry on, the model went through various diagnostic tests to avoid making invalid statistical inferences if the assumptions of logistic regression are not met. The logistic regression requires the true conditional probabilities to be a logistic function of the independent variables; no omission of important variables; no inclusion of irrelevant variables; the independent variables are measured without error; the observations are independent, and the independent variables are not linear combinations of each other. The following tests were conducted to check the reliability of the estimates.

4.3.1. Model Specification Test

The model was tested if it has all the relevant variables and if the linear combination of them is sufficient. The STATA command *link test* after regression was used to detect a specification error. The test uses the linear predicted value (**_hat**) and their squares (**hatsq**). The variable **_hat** has to be a statistically significant predictor, since it is the predicted value from the model while variable **_hatsq** should be insignificant for the model to be correctly specified. If **_hatsq** is significant, then either we have

omitted relevant variable(s) or the study link function is not correctly specified. Table 4.10 shows the result of model specification test.

Table 4.10: Model Specification Test

Household Welfare	Coefficient	Std. Err.	Z	P>z	[95 percent Conf. Interval]	
_hat	0.689	0.246	2.80	0.005	0.207	1.172
_hatsq	0.271	0.145	1.86	0.062	-0.014	0.555
_cons	-0.080	0.220	-0.37	0.715	-0.512	0.351
Logistic regression		Number of observations			=	186
		LR chi2(2)			=	36.35
		Prob> chi2			=	0.000
Log likelihood = -97.248		Pseudo R2			=	0.158

Source: Own research, 2018

From Table 4.10, it is shown that the model is correctly specified since **_hat** is statistically significant at 1 percent significance level as reflected by a probability value of 0.005. Variable **_hatsq** is statistically insignificant at 10 percent level with probability of 0.062.

4.3.2. Goodness of Fit Test

Goodness of fit of the model shows how well the model fits the data. Hosmer-Lemeshow (HL) test is used to assess the goodness of fit of a model and allows for any number of explanatory variables, which may be continuous or categorical (Bewick, Cheek & Ball, 2005). In this study, Hosmer-Lemeshow (HL) test for logistic regression was used to test the model fit. The results show that p value exceeds 0.05. If results of the test show that p value is less than 0.05, means that the model tests do not fit the data, while if the p value is more than 0.05, the model fits the data. Therefore, the results in this study suggest that the goodness of fit is adequate (See Table 4.9).

Table 4.11: Results of Model Fit test

Number of observations	186
Number of groups	10
Hosmer-Lemeshow chi2 (8)	2.52
Prob> chi2	0.9610

Source: Own research, 2018

A classification table gives the predictive accuracy of a logistic regression model. It involves cross classifying the dependent variable with the categorical variable coming from the fitted logistic probabilities. This table gives sensitivity, specificity, false positive and false negative. Sensitivity of the model is the percentage of successes that have been correctly classified, as success while specificity of the model is the percentage of failures that have been correctly classified. False positive is the failures that are incorrectly classified as a success and false negative is the success that is incorrectly classified as failures. Our model sensitivity is 87.50 percent, specificity is 34.48 percent, a false positive is 65.52 percent, a false negative is 12.50 percent and the overall correct percentage was 70.97 percent, which shows that, the model's overall explanatory strength is good (see Table 4.10).

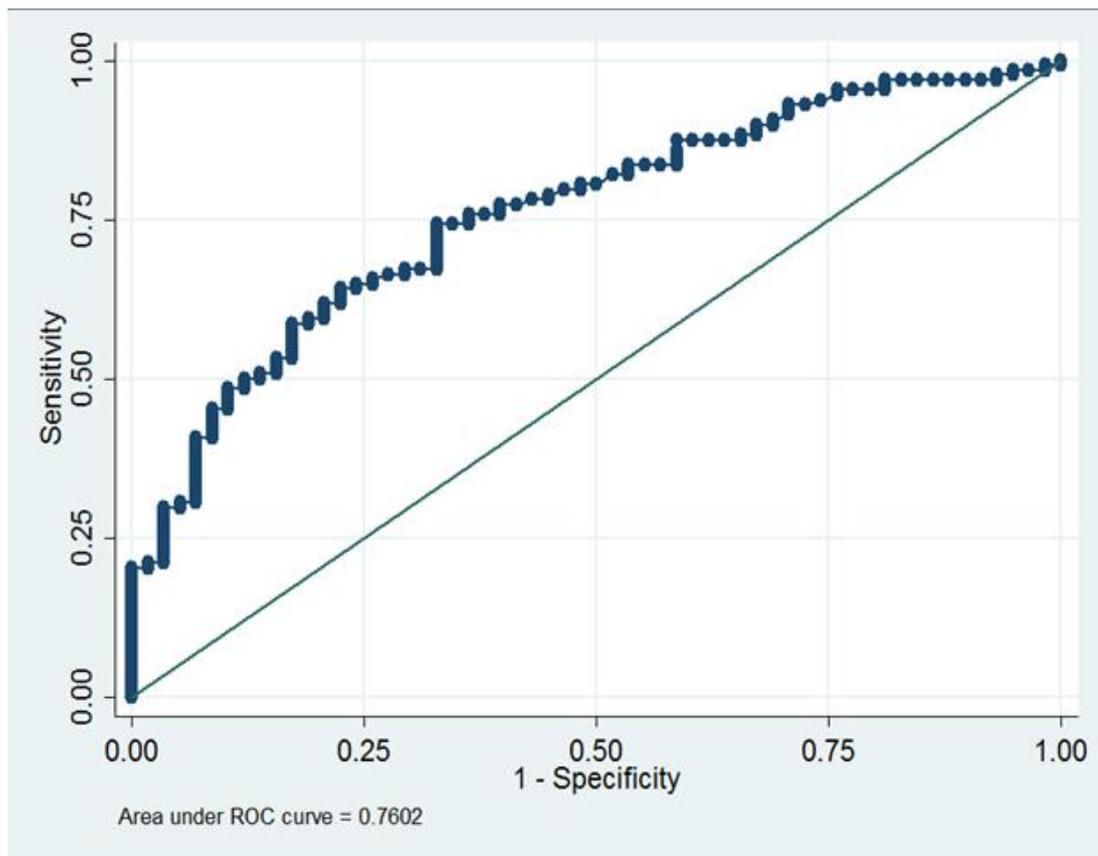
Table 4.12: Predictive Accuracy of the Logistic Regression Model

Sensitivity	Pr(+ D)	87.50 percent
Specificity	Pr(- ~D)	34.48 percent
Positive predictive value	Pr(D +)	74.67 percent
Negative predictive value	Pr(~D -)	55.56 percent
False + rate for true ~D	Pr(+D ~D)	65.52 percent
False - rate for true D	Pr(- D)	12.50 percent
False + rate for classified +	Pr(~D +)	25.33 percent
False - rate for classified -	Pr(D -)	44.44 percent
Correctly classified	70.97 percent	

Source: Own research, 2018

The discrimination of a model indicates how well the model distinguishes respondents with good wellbeing and those with poor wellbeing. This can be examined using the Area Under the Receiver Operating Characteristic curve (AUROC) (Bewick *et al.*, 2005). The researched calculated the AUROC and got a value of 0.7602, indicating that the model discriminates well (see figure 4.5 below).

Figure 4.5: Area Under the Receiver Operating Characteristic Curve (AUROC).



Source: Own research, 2018

Given the above tests of goodness of fit, it is generally observed that our model fits the data well. On other the hand, we should note that, goodness-of-fit is not normally as important as the statistical and economic significance of the independent variables (Wooldridge, 2002).

4.3.3. Multicollinearity Test

Multicollinearity is a linear arrangement of two or more explanatory variables in the model and can have different effects on the model depending on the degree of multicollinearity. For example, it is difficult to find a unique estimate of regression coefficients with all the explanatory variables in the model when perfect multicollinearity occurs. Any relationship among the explanatory variables is a sign of multicollinearity, however, sensible multicollinearity is not a problem. Severe multicollinearity causes the standard errors for the coefficients to be very large (inflated), and the estimated logistic regression coefficients are likely to be unpredictable.

We steered correlation analysis to identify if they are moderate or severe multicollinearity. The correlation of 0.8 or above between two explanatory variables is a sign of severe multicollinearity. The result from Table 4.11 shows that there is no severe multicollinearity. Tolerance and Variance Inflation Factor (VIF) were also examined, which are the two regularly used measures of the strength of the interrelationships among the variables.

Tolerance is a sign of the extent of multicollinearity that a regression analysis can tolerate and VIF is an indicator of the extent of the inflation of the standard error which might be caused by multicollinearity. If all of the clarifying variables are completely uncorrelated with each other, then both the tolerance and VIF are 1. If a variable is very closely related to another adjustable or variables, the tolerance approaches to 0, and the VIF is very large. From the result obtained in Table 4.13, the tolerance is close to 1 and the mean VIF is 1.32, which is very small showing no multicollinearity problem.

Table 4.13: VIF and Tolerance

Variable	VIF = 1/Tolerance	Tolerance
Delay in Payment	1.06	0.947
Psychological Effects	1.2	0.831
Age	1.22	0.818
Housing condition	1.11	0.902
Access to food	1.09	0.915
Dependent Education Support	1.22	0.820
Income	1.26	0.800
Life Stress experience	1.17	0.851
Early Death Perception	1.28	0.783
Marital Status	1.34	0.748
Mean VIF	1.32	

Source: Own research, 2018

Table 4.14: Correlation Matrix

	Delay in Payment	Psychological Efforts	Housing condition	Access to food	Dependent Education Support	Income	Life stress experience	Early Death Perception	Age	Sex	Marital Status	Age2
Delay in Payment	1											
Psychological Efforts	0.449	1										
Housing condition	-0.517	-0.676	1									
Access to food	0.050	0.104	-0.098	1								
Dependent Education Support	--0.070	0.100	0.243	-0.540	1							
Income	0.147	0.050	-0.054	0.002	0.101	1						
Life stress experience	0.012	0.176	-0.065	0.069	0.071	-0.149	1					
Early Death Perception	0.035	0.099	-0.131	-0.071	-0.131	0.161	0.051	1				
Age	-0.011	0.015	0.131	0.043	0.042	0.216	0.216	0.211	1			
Sex	0.099	0.127	-0.154	0.237	0.011	0.101	0.322	0.270	0.364	1		
Marital Status	0.021	0.069	-0.084	-0.238	-0.024	0.070	0.051	0.064	0.14	0.103	1	
Age squared	0.1204	-0.0097	0.0122	0.1391	0.0401	0.0280	-0.1313	-0.0279	-0.0067	0.9933	0.0540	1

Source: Own research, 2018

4.3.4. Interpretation of the Results of the estimated Logit Model

The coefficients of the Logit Model are given in Table 4.15. The logit model is used to examine the factors in explaining post-retirement challenges facing members of social security pension funds in Dar es Salaam and its implications for retiree household's welfare. Our interpretation is based on the Coefficients that are significant.

Table 4.15: Results of the Logit Model

Explanatory Variables	Robust Standard Error		Marginal Effects	
	Coeff.	P-Value	(dy/dx)	P-Value
Constant	-2.339	0.512		
	[3.565]			
Delay in Payment	0.988**	0.029	0.189**	0.024
	[0.452]		[0.084]	
Psychological Effects	1.655**	0.016	0.282**	0.005
	[0.689]		[0.100]	
Housing Condition	2.167**	0.013	0.472**	0.009
	[0.875]		[0.180]	
Access to food	0.422	0.443	0.085	0.447
	[0.550]		[0.111]	
Dependent Education Support	-0.451	0.534	-0.093	0.558
	[0.726]		[0.159]	
Income	4.19e-07	0.677	8.18e-08	0.679
	[1.01e-06]		[0.000]	
Life Stress Experience	-2.381**	0.004	-0.534**	0.000
	[0.819]		[0.147]	
Early Death Perception	1.504**	0.011	0.234**	0.000
	[0.591]		[0.066]	
Age	0.009	0.962	-0.002	0.962
	[0.184]		[0.036]	
Sex	-0.983**	0.046	-0.179**	0.035
	[0.492]		[0.085]	
Marital Status	1.266**	0.042	0.201**	0.007
	[0.622]		[0.075]	
Age squared	0.1806	0.943	0.0352	0.943
	[0.2509]		[0.0049]	
<i>Number of observations</i>	186			
<i>Wald chi2(12)</i>	20.13			
<i>Log pseudo likelihood</i>	-99.056			
<i>Prob> chi2</i>	0.065			
<i>Pseudo R2</i>	0.142			

Source: Own research, 2018

Note: Robust standard errors in brackets

*** Significant at 1 percent, **significant at 5 percent * significant at 10 percent level

(#) dy/dx is for discrete change of dummy variable from 0 to 1

Delay in Payment

The results in Table 4.15 shows that, delay in payment has a positive effect on retiree household's welfare and statistically significant at the 5 percent level. The delay in payment to retirees has a marginal effect of 0.189 implying that retired household welfare is likely to increase by 18.9 percent if the retirees' pension would be processed and paid timely, other factors held constant.

Psychological Effects

The results in Table 4.15 show that, a psychological effect has positive effect on retiree household's welfare and it is statistically significant at 5 percent level. This implies that as the retiree receives less or unexpected amount from his/her pension fund scheme, he/she becomes affected psychologically. The psychological effect has a marginal effect of 0.282 implying that retired household welfare is likely to increase (by 28.2 percent) as the retirees receives the expected pension amount, timely, other factors held constant.

Housing Condition

Table 4.15 reveals that, housing condition has a positive influence on retiree household's welfare and statistically significant at 5 percent level. Housing condition has a marginal effect of 0.472, which implies that there is 47.2 percent higher probability that the retired household welfare would increase if the retirees would not rely on their pension money for housing, other factors held constant.

Life Stress Experience

The results in Table 4.15 shows that, the coefficient of life stress experience is negative, that is, it has negative effect on retiree household's welfare and statistically significant at 5 percent level. This implies that life stress experience has an inversely proportional relation to retired household welfare. Life stress experience also has a marginal effect of -0.534, meaning that retired household welfare is likely to decrease by 53.4 percent if the retirees receives less pension leading to life stress experience, other factors held constant.

Early Death Perception

The results in Table 4.15 shows that, the coefficient of early death perception of the respondents is positive, and a statistically significant at 5 percent level. This implies that, if the social fund institution does not settle beneficiary's pension timely, leading to the retiree's shortage or out of cash, this may result to early death perception of the retiree. The early death perception variable has a marginal effect of 0.234 implying that the retired household welfare is likely to increase by 23.4 percent if the retirees would be supported with a hygienic customer services by the pension schemes, such as timely transfer of their funds, other factors held constant.

Sex

Table 4.15 shows that, sex has a negative influence on retiree household's welfare and statistically significant at 5 percent level. Both sex faces difficulties, though it has been revealed that male sex, being the household head, are burdened with the household responsibilities despite that both male and female are on the same track of social security funds challenges. Sex has a marginal effect of -0.179 implying that male retirees have 17.9 percent lower probability of experiencing improved welfare, other factors remaining constant.

Marital Status

From Table 4.15 above, the coefficient of marital status is positive and statistically significant at 5 percent level. This implies that married couples are likely to experience improved welfare as compared to those single, divorced, and widowed. It could be that this group is likely to attend to their life demands collaboratively.

On the other hand, the study reveals that access to food, dependent education support, income, and age are statistically insignificant in explaining the retired household welfare.

CHAPTER FIVE

DISCUSSION OF THE FINDINGS

5.1. Introduction

This chapter presents discussion of the findings obtained in this study. This study was conducted to find out the post retirement challenges facing the members of social security pension funds in Dar es Salaam and the implications on the retiree household's welfare. Descriptive analysis was employed to determine the relationship through various variables that is, delay in payment, psychological effects, housing condition, life stress experience, early death perception, sex, marital status, access to food, dependent education support, income and age. A total of 186 respondents were involved in the study. Moreover, this chapter presents discussion on main faced challenges of accessing pension benefits in SSPF as perceived by pensioners, it examines the extent to which the challenges are related with socioeconomic attributes of the retired civil servants, and determines the extent to which the challenges encountered by retired civil servants affects welfare.

5.2. Main challenges facing retirees in accessing pension benefits

Main challenges of accessing pension benefits in SSPF by the retired civil servants were examined. The results from figure 4.2 revealed that among the challenges faced by retirees in accessing their pension includes; delaying in processing and payments of terminal benefits, a problem of mishandled documentation of their data when make follow up of their pension records, transport costs in making follow up on their pension as well as receipt of insufficient pension amount than expected.

The respondents explained that the delay in payments of their pensions makes it hard for them because most of them when they retire they much depend on their terminal benefits for settlement and business startups to keep their life moving. Delay in receiving the payments makes them fail to provide for the households.

Mishandled documentation such as missing records of some of the retirees' years of service, miss-capturing changes in positions during the services like higher posts which increases their contributions and missing contributions records from their employers are among the most observed challenges. These results to insufficient payment to the retirees as well as causing delays when following up to sort the matters.

Moreover, miss-capturing of contributions records as well as lack of continuous updates/information on financial records and various changes from the pension schemes affects the retirees. This is because they result into receipt of less amount than expected by the beneficiaries as well as causing delays.

As suggested by Museya (2014); URT (2010), delay in payment, mishandled documentation, insufficient funds receipts and transport costs are among the challenges encountered by retirees when making follow-up to access their pensions. This affects their welfare negatively as they face difficulties in adhering to their basic family needs.

The lifecycle hypothesis theory stated that households accumulate savings during their working careers up to their retirement, and de-accumulate wealth thereafter (Deaton, 2005). This theory is relevant because when the employees keep their contribution in social security fund, it saves their consumption at retirement (Lachowska & Myck, 2015), therefore, delaying the payment subjects them to life distress. Respondents explained that they find social security to be ideal as among its objective is to secure them from future uncertainties. However, the challenges faced brings tension to them especially when they struggle to meet their demands especially providing for their families.

It is crucial for pension schemes to improve their policies, procedures and regulations to make it easy for the retirees to access their pension with stress free especially on reducing number of days of processing the payment, having proper records of the retirees' benefits for ease processing and also considering the amount of funds entitles to pensioners to be improved. As indicated in various studies, retirees depend highly (only) on their pensions for their entire life (Kazimoto and Mhindi, 2014).

Taking into account its importance in supporting the retirees' life as they can no longer work enough to cover for their needs, social security is also considered to be a basic human right (Barya, 2011).

5.3. Challenges in accessing pension benefits and their socioeconomic attributes

As presented in figure 4.3 above, it was found that among the factors that causes variation across the pensioner's social economic attributes were; highest level of education of the pensioner, education of the parent, occupation, net income, household income and possession of wealth such as assets and capital.

Results revealed that, education level of the pensioners on pension matters is low which makes it difficult for them to understand issues pertaining social fund. That includes the failure to track their contributions as well as getting updates/information while on service to avoid inconveniences later. Museya (2014) found that social security schemes do not give updates and disclose information to their members regularly, which makes it a struggle when their members retire. However, it is one thing social security schemes not to provide regular updates and another thing the members not taking responsibilities in keeping track of the issues. This was found to at least minimize the faced challenges, as any raising matters could have been resolved timely.

Occupation of the beneficiary was also found to cause a variation as retirees who worked at high paying institutions or jobs or at higher positions are more likely to face less challenges especially if planned well for the retirement compared to the ones with low paying jobs. Further, the net income of the beneficiary was found to be among the causes of variation, for example most of the individual with small business are more likely to be affected compared to ones with well-paying and stable business. Household income also causes the variation as well as wealth of the retirees such as assets, capital and other wealth sources.

As the theory of permanent income hypothesis (Friedman, 1957) explained above in the concept of consumption smoothing, a person's consumption is determined by

his/her lifetime income, that is the expected long-term average income and not on the current income. In this reason, workers are motivated to secure themselves with social security schemes for their future wellbeing. However, due to the challenges that are faced by the retirees on accessing their funds, it would be ideal for them to plan well for retirement especially creating other source of income such as business and other investments. As people look up to living to retirement and found it important to secure them for consumption smoothing as suggested in the theory, strategizing ahead for income to supplement the pension will minimize the struggle. On the other hand, social security schemes can also be providing financial management and investment to the members while on service for be retirements plans to prevent life distress due to receipt of less funds than anticipated.

In nutshell, it was found that the challenges faced by retirees vary across their social economic attributes because they depend on pension as their source of income but also most of them depend on other sources of income, other than pension, to cover for their needs. Museya (2014) found in his study that challenges faced by retirees in accessing their pension vary across pensioners due to income related impacts, for example, others could not manage to provide for their families and others failed to meet their other life needs including inability to access to health/medical services, water and electricity.

5.4. Challenges of accessing pension funds and their effect on household's welfare

From figure 4.4 above, the results reveal that despite the fact that the retirees have received their lump sum pension (terminal benefits) and they are still getting their continued pension from their respective entities, their household's welfare is still affected in various aspects including; the ability, willingness and propensity to save, inflation, entitled pension amount, cash withdraws from business and family support.

It was found that the ability, willingness and propensity to save is the problem to most retirees where the failure to save turns them to depends on a households' disposable income. The willingness and propensity to save as influenced by the

socio- economic factors also affects their opportunity to save and earn a return on the savings. It was also found that increase in cost of living as a result of inflation (value for money) also affects their welfare. Kazimoto and Mhindi (2014) suggest that the little pension amounts received by the retirees from their schemes are affected by inflation, which makes the cost of living go high.

It was found that retirees claim to receive small amount of pension, which do not suffice their life demands and hence affects their welfare. It was observed that is due to the reason that most of the families are extended families where the retirees have a number of family members' dependents to take care of. Moreover, it was found that the insufficient pension to support their needs, subjects them into withdrawals of funds from their investment, which affects their businesses and so their welfare. Nevertheless, family support was found to be an additional income to take care of their needs, as pension itself isn't sufficient enough and the retired are old enough to work (Kazimoto & Mhindi, 2014).

According to Martin (1996), the positive theory of social security links retirement benefits to retirement. Workers are aware that social security schemes were designed to protect them when they are tired to work due to old age or other uncertainties. Moreover, from the findings they acknowledged the role played by social security pension in their post-retirement life although they are faced with challenges in accessing the funds which in turn affects their wellbeing.

Taking this into account and the fact that most of the retirees depend on pension as their main source of income, it is recommended for social security schemes to improve their services to prevent the challenges and ensure good wellbeing to the beneficiaries. It is suggested to improve the processing and the payment amount as retirees are too old to work and they have devoted all of their energetic time to the country. Most of them depend highly on the pension for their survival especially on food, housing, health and dependent's education (Kazimoto & Mhindi, 2014; URT, 2010).

5.5. Implications of the challenges facing retired civil servants on household's welfare

The binary logit regression model was used to examine the factors that explain post-retirement challenges facing members of social security pension funds in Dar es Salaam and their implications for the retiree household's welfare. The results suggest that delay in payment, psychological effects, housing condition, life stress experience, early death perception, and marital status are significant factors in explaining challenges facing members of social security pension funds. These results imply that the variables have both positive and negative effect on retiree household's welfare.

5.5.1. Delay in Payment of Pension Fund and Retiree household's Welfare

The marginal effect coefficient suggests that the relationship between delay in payment and the retiree household's welfare is positive. The p-value estimate is 0.029 ($\alpha < 0.05$). This implies that the retired household welfare would increase if the retirees' pension would be processed and paid timely, other factors held constant.

This is in-line with URT (2010); Kazimoto and Mhindi (2014); Museya (2014) which indicates that the delay in payment affects the retirees' welfare as they depend on pension as their main source of income when they retire. Thus, among the recommendation is to improve the systems and procedures in the pension schemes and the employers through timely documents preparation and processing to avoid the preventable challenges.

5.5.2. Psychological Effect and Retiree household's Welfare

The marginal effect coefficient suggests that psychological effect has a positive relationship with the retiree household's welfare. The p-value estimate is 0.016 ($\alpha < 0.05$). This means that as the retiree receives less or unexpected amount from his/her pension fund scheme, he/she becomes affected psychologically. This implies that the retired household welfare increases given that the retirees receives the expected pension amount, timely, other factors held constant.

The retirees would be better-off if their information on their contributions as well as the amount to expect be provided to them regularly starting when they are about to retire so that they are well informed and prepared psychologically. This result is in-line with URT (2010) that employers should have a schedule of employees that are about to retire ahead of time, keep it updated and staff notified timely as well as having all documentations in place to ensure transparency and timely payment of the dues.

5.5.3. Housing Condition and Retiree household's Welfare

In this study, the marginal effect analysis indicates that housing condition has a positive relationship with the retiree household's welfare. The p-value estimate is 0.013 ($\alpha < 0.05$), which shows a huge relationship between housing condition and the retiree household's welfare. This implies that the retired household welfare would increase if the retirees would not rely on their pension money for housing, other factors held constant.

Among the expenses that are continues and affect the retirees if not well prepared is housing because its cost is high (Kazimoto and Mhindi, 2014). Moreover, it was observed that when the retiree depends only on pension for taking care of their housing/shelter are more subjected to poor housing due to a little amount of money that is monthly given in the account to sustain their lives and thus affects their welfare. Most of retirees explained that they use the lump sum amount that is received as the terminal benefit for business startup of which to most of them do not go so well, while some uses for house construction. However, if it's a new house the respondents explained that the funds are not sufficient to accomplish but for the ones that need to finalize what they have started acknowledge the support from the pension for housing.

5.5.4. Life Stress Experience and Retiree household's Welfare

In this study, the marginal effect analysis reveals that the relationship between life stress experience and the retiree household's welfare is negative. The p-value

estimate is 0.004 ($\alpha < 0.05$), which indicates a presence of relationship between increase life stress and the retiree household's welfare. This explains that life stress experience has an inversely proportional relation to retired household welfare. This implies that retired household welfare is likely to decrease if the retirees receive less pension leading to life stress experience, other factors held constant.

It was found that failure displaying the required amount to the pensioners' increases life stress to them (URT, 2010). Most of the respondents that claimed to live a satisfactory life in this study are because they do not depend on pension only, but rather, they have other sources of income from their own business that they operate at the retirement time. Others acknowledged great support from their families, which makes them meet their daily needs such as food, shelter, housing and education of their dependents. For those with no other sources of income faces life distress due to the reduced income level and increasing life demands. Garba and Mamman (2014); Eremie (2015) are consistent with this study as they found that retirees who depend on pension as the only source of income faces life distress.

5.5.5. Early Death Perception and Retiree Hhouseholds' Welfare

With reference to the obtained findings in this study, the relationship between early death perception and the retired household welfare is positive. The p-value estimate is 0.011 ($\alpha < 0.05$), which indicates that there is a connection between early death perception and the retiree household's welfare. If the social fund institution does not settle beneficiary's pension timely, leading to the retiree's shortage or out of cash, this may result to early death perception for the retiree. This implies that, the retired household welfare increases if the retirees would be supported with a hygienic customer services by the pension schemes, such as timely transfer of their funds, keeping other factors at their means.

The observation shows that, old age comes with a lot including unforeseen uncertainties that need attention (Kapuya, 2003); health problems being the most. Therefore, delay in payment or any other challenges that cause their accounts not to be settled timely and or receiving less than expected subjects them to stress. This is

because they cannot meet their life demands and sometimes fail to get timely and proper medical attention and hence accelerate their deaths. This aligns with Ndiaye et al. (2007) as they indicated the importance of social security pension funds having social insurance systems to cover their members.

5.5.6. Sex and the Retiree Household's Welfare

The findings of this study revealed that sex relationship with the retiree household's welfare has p-value estimate of 0.046 ($\alpha < 0.05$), which implies statistically significant connection between the two variables. The marginal effect analysis shows that gender has negative influence on the retired household. Both sex faces difficulties, though it has been revealed that male sex, being the household head, are burdened with the household responsibilities despite that both male and female are on the same track of social security funds challenges. This is implying that the retired household welfare decreases if the retiree is of male sex, other factors remaining constant.

It is well known that pension systems vary across different countries, however, social security schemes can be a pillar in distributing rights, resources and risks which affect men and women differently (Arza, 2017). This will help to resolve the issue on inequality and create comfortable life for their members when they retire (Arza, 2017).

5.5.7. Marital Status and the Retiree Hhouseholds' Welfare

In this study, the marginal effect analysis reveals that the relationship between marital status and the retiree household's welfare is positive. The p-value estimate is 0.042 ($\alpha < 0.05$), which indicates a presence of relationship between marital status and the retiree household's welfare. This implies that retired household welfare would increase if there is a coupled household expenditure, other factors held constant.

Married couples are likely to experience fewer challenges when it comes to household welfare as compared to those single, divorced, and widowed, given that

they are likely to attend to their life demands collaboratively, “two are better than one”. This was also noted from the interviews with most of the coupled respondents as the pension they both receive helps them to attend to their needs together. It was therefore observed that for the retired couples, the pension benefits suffice them more compared to those who were single, widowed or divorced.

CHAPTER SIX

SUMMARY, CONCLUSION AND POLICY IMPLICATIONS

6.1. Introduction

This chapter analyses the summary of the study, policy implications and recommendations, and explanations for further research. Section 6.2 gives a summary of findings and conclusion; section 6.3 points out policy implications and recommendations based on the findings; and lastly, section 6.4 presents important areas for further research.

6.2. Summary of Findings

Pension funds play a big role in supporting retirees to manage their post-retirement as their income from their savings through contributions to the Social Security Fund (SSF) schemes. The concept of Pension funds refers to a program that provides economic assistance to retired employees financed by employers (URT, 2010).

This study examined post-retirement challenges affecting welfare of social security fund members in Dar es Salaam based on a cross-sectional survey of 186 respondents. Specific objectives were, to explore and identify main challenges perceived to affect access pension benefits in SSPF among the retired civil servants, to examine the extent to which the challenges are related with socioeconomic attributes of the retired civil servants, and to determine the extent to which the challenges encountered by the civil servants affects welfare. Descriptive statistics and logistic regression were used for estimating and testing the proposed relationships.

The results shows that, 12 percent of the respondents explained transport costs, is one of the challenge they get in accessing pension, 10 percent of the respondent complained about their insufficient amount of pension received, 50 percent of the respondent explains that, delaying in processing and payments of terminal benefits, especially for the retired who start to make a follow up for their benefits, 28 percent

explains that there is a problem of mishandled documentation of their data when make follow up of their pension records

Moreover, the results shows that, 17 percent of the respondent explains the highest level of education attained is the challenge, whereas 24 percent of the respondents explained education level of their parents is low, and this makes it a problem to understand issues pertaining social fund, while 13 percent explain occupation of the beneficiary is a problem, 10 percent explain the net income of the beneficiary is the problem to most of the individual with their small business, 16 percent of the respondent explains household income is the problem, whereas 20 percent of the respondent explains wealth such as assets, capital and other is the problem

The findings reveal that, 15 percent of the respondent explained that, ability, willingness and propensity to save is the problem to most retirees, that is, the ability to save, which in turn depends on a households' disposable income; the willingness and propensity to save as influenced by the socio- economic factors; and the opportunity to save and earn a return on the savings. 6 percent of the respondents explained that inflation is the challenge, which affects the value of money contributed while on service as they receive less money than what they have been contributing to the SSPF schemes.

The findings also revealed that 32 percent of the respondents claimed to receive small amount of pension, which do not suffice their life demands. It was observed that most of the families are extended families where the retirees have a number of family members' dependents to take care of. Moreover, 20 percent of the respondents explained that the insufficient fund from the schemes to support their needs subjects them into withdrawals of funds from their investment, which affects their businesses. Nevertheless, about 27 percent of the respondents explained that they depend on family support, which serves as an additional income to take care of their needs, as pension itself isn't sufficient enough

The results from Logistic regression model reveals that, *delay in payment, psychological effects, housing condition, life stress experience, early death perception, gender (sex) and marital status* showing significant factors in explaining

post-retirement challenges affecting welfare of members of social security pension funds in Dar es Salaam.

On the other hand, the study found access to food, dependent education support, income, and age to be insignificant factors in explaining post-retirement challenges affecting welfare of members of social security pension funds in Dar es Salaam.

6.3. Conclusion

Retirees depend on pension funds as their main source of income to cover for their life demands as social security schemes were designed to cover its members at retirement and future uncertainties (Barr & Diamond, 2006; Kapuya, 2003). On one hand, most of the retirees acknowledged the importance of pension as it serves the intended purpose. On the other hand, they claimed it not to be sufficient enough to carter for all of their needs such as food, housing, medical care and their dependent's education without depending on other sources of income such as business and remittances/family support (Kazimoto and Mhindi, 2014).

The challenges encountered by retirees on accessing their pension such as delaying in processing and payments of terminal benefits, a problem of mishandled documentation of their data when make follow up of their pension records, transport costs in making follow up on their pension as well as receipt of insufficient pension amount than expected were observed to affect the retired household welfare. Museya, 2014) study revealed the same challenges that affects the retirees' welfare due to continues following up on their pension; most of the complaints were on very long time that the social security schemes take to process the pension payments.

Moreover, the challenges varied across the pensioners' social economic attributes due to level of education of the pension beneficiary, education of the parent, occupation, net income, household income, possession of wealth such as assets and capital.

The results from the Logistic regression model suggest that delay in payment, psychological effects, housing condition, life stress experience, early death perception, sex and marital status are significant factors in explaining challenges affecting welfare of social security pension members.

Based on the findings, it is recommended that knowledge on social security pension funds and financial management to be provided to members of social security schemes as well as creating awareness and attitude towards investment and retirement while on service for better retirement plans. Further, pension funds payment systems should be improved by social security schemes in collaboration with the employers to ensure timely provision of services to improve the retiree household's welfare.

6.4. Policy Implications and Recommendations

Based on the findings above, for a better growth in the savings among households there is need for an effective savings service by all the financial institutions involved in mobilizing savings. The term effectiveness applies to the objectives and the extent to which these are achieved. The word effective describes realization of the objective. An objective is a desired future state that the organization attempts to realize. Retirement schemes in Tanzania are required to attain the objectives of the savers if they are to give "value for money".

Secondly, it was observed that low-income people would sustainably increase their voluntary savings deposits if provided with security, convenience and market returns. Security is ensuring safety of members' funds; convenience is the ease with which members savings are made available to them in time of need; and market return refers to the competitive interest earned that encourage savings. Social security schemes and employers are advised to take that into considerations for economic assurance to the members.

6.5. Limitations of the Study

The study was limited by financial constraints as many expenses were involved in budgetary items like stationary, internet, transport, data collection typing and printing, and binding cost.

Time was also one of the major constraints in the course of conducting this study as the researcher was conducting the study while attending to other life duties/activities.

6.6. Recommendations for Further Research

This study was conducted to assess the post-retirement challenges in accessing pension benefits and their implications for the retiree household's welfare in Dar es Salaam. Further study is recommended on how Social Security Schemes in Tanzania could cover all the elders in the country in pension schemes including those who were not employed during their teenage. Another study to be conducted to explore how education on social security schemes could help the members to plan for retirement while on service to prevent life distress during retirement.

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APPENDIXES

APPENDIX I: QUESTIONNAIRE TO PENSIONERS

Dear respondent,

The aim of this research is to assess how the challenges of accessing pension benefits affects the retired households' welfare. You are kindly requested to assist the undersigned student who pursues a Master's Degree program. Your response will serve as source of information to this research paper for academic purposes.

Student Name: -----

Date-----

INSTRUCTION:

Please read the question carefully and answer by either filling in the blanks or put a tick (√)

PART I: Demographic characteristics of respondents.

a) Sex

Male ()

Female()

b) Marital status

Single () Married () Divorced () Widow/widower ()

c) Number of expectants

a) Age of the retiree

PART II: STUDY QUESTIONS;

a) The Effect of Old Age Pension Scheme on Retired Households' Welfare

i) Do old age pension scheme has a significant impact in improvement of your wellbeing?

Significant () insignificant ()

ii) If the answer in (i) is significant, how would you rate the level of its significance in improving your livelihood?

High () Low () Medium ()

iii) If the answer in (i) is insignificant, give the reasons for its insignificance?

iv) How would you rate the extent to which old age pension improve your wellbeing?

Statement	Strongly disagree	Disagree	Agree	Strongly agree
Pension funds enable us to access our daily meals				
Pension funds enables us to access housing				
Pension funds enables us to access medical care/services				
Pension funds enables my dependent(s) to have an access to education				

b) Other social security scheme's benefits

i) What social security scheme were you registered with?

NSSF (...)

PSPF (...)

- LAPF (...)
- PPF (...)
- Other (specify)

ii) What other benefits do you receive from your social security scheme other than pension?

- Health coverage (...)
- Bonus (...)
- Other (specify)

c) Job characteristics

i) Position worked or nature of job

- Clerical position (...)
- Managerial position (...)
- Military position (...)
- Risk job (specify)
- Other professionalism (specify)

ii) What was your last received salary when retired?

iii) How many years did you serve in organization(s)/institution(s) and contributed to your social security scheme?

d) Other sources of income

i) Do you own a business (self-employed) that provides with reliable income?

Yes (...) No (...)

ii) If your answer in (i) is yes, what type of business?

What is the monthly average revenue generated by your business?.....

Does your business provide you with substantial amount to take care of your needs? Yes (...) No (...) if yes, please select the areas that it supports you,

Health (...)

Dependants' education (...)

Food (...)

Housing (...)

iii) Do you get support from other informal sources? Yes (...) No (...). If yes please indicate below;

Remittances (family support) (...)

Other (specify)

If yes in (iii) above, please select the areas that it supports you,

Health (...)

Dependants' education (...)

Food (...)

Housing (...)

d) Did you/do you face challenges in accessing your pension? Yes (...) No (...).

If yes please indicate what were the challenges faced from the below;

Delay in payment (...)

Mishandled documentation (...)

Receipt of unexpected pension amount (insufficient)(...)

Transport cost (...)

Others (specify)

.....
.....
.....

e) If the (d) is yes, what are the possible consequences of the challenges faced?

Life distress (...)

Early death perception (...)

Psychological effect (...)

Housing condition (...)

Other (specify)

.....
.....

.....

e) What is your perception on pension funds schemes?

.....
.....
.....

f) How do you explain your state of life as a retiree?

.....
.....
.....