



ECONOMIC FEASIBILITY OF THE ELDERLY POPULATION IN SRI LANKA

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AUTHORS' CONTRIBUTIONS

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ABSTRACT

Elderly population can be identified as one of the growing disposition nowadays. The process of the aging of the population can be considered as an important sector on population studies. Basically population aging is the growth of the population who are more than 60 years old than the population under the age of 15. According to United Nation estimation on population by 2025-2035 the growth rate of the 60t population would be 2.8% while the growth rate of general population would be 0.83%. Sri Lanka is well known as a South Asian country with increasing elderly population .It is consequential to take appropriate action for the increasing population of elders. The aging of Sri Lankan population is a consequence of a positive disposition of the decreasing of fertility and life expectancy .Therefore it is better to calculate the matter of aging population in a positive light .The provisional necessity is to create opportunities for the elders to involve in economic development without being a burden to the economy. The purpose of the paper is to study on the feasibility of the elderly population on economics. The study used primary date by choosing a sample of 100 participants from Western Hitthetiya of Matara Secretariat Division of Matara District. Thus, participants' mental and physical feasibility and their ability and accord on working after retirement were studied. As secondary data, books, magazines and the records of Matara Secretariat Division on 2019 Resource Profile were used. Then the collected primary and secondary data were analyzed using MS Excel & SPSS software and the conclusion was that the 70% of the participants around age 60-70 have sufficient mental and physical feasibility to engage in work or a job and they are willing as well. Though they aimed to earn a payment via a job, their main purpose of working was gaining self-satisfaction and spending a quality time. Moreover they preferred if the retirement age get extended to 63 and it was evident that they liked the self-satisfaction of spending a quality time. It would be advantages to the economy at the elderly population engage in further working.

Keywords: Elderly population; Economical feasibility; Self-satisfaction; job expectations; retirement age.

1. INTRODUCTION

Population is a prosperity to a country. Thousands of years ago only a scattered number of people have lived in the world during the pastoral age [1-4]. The number of population has drastically changed while

domestication i.e. food production instead of collecting goods A population in a country affects its social and economic affairs .It also have effects on the labor force on that country. It is obvious that a powerful labor force strengthens a country's economy.

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A common disposition in the contemporary world is the aging of elderly population can be identified as a consolidated concept with the growing population. Aging population is one of the issues many countries face today. Thus, Kuroda. (1993) introduces 21st century as the “Age of population aging”. Population aging is an increase in the proportion of the elderly in the total population. The cause for population aging developed and developing countries is the fall in fertility and the rise of life expectancy. In the 20th century a 55 years old person was considered as an elder [5-8]. Developed countries consider 65+ people as elders while developing countries consider 60+ people as elders. Nevertheless it can be considered 60 as the age a person becomes an elder as the reports of the Population Division of UN’s Department of economic & social affairs. Population aging was common in developed countries formally though it is now common in developing countries. Thus, 95 million of elderly people lived in developed countries in 1950s. In the present, a considerable proportion of elderly population live in developing countries given the fall of fertility and deaths. By 2012, 258 million elderly population lived in developed countries while 512 million lived in developing countries. It is expected that this situation will continue to grow in the future [9-12].

Sri Lanka is a prominent country in South Asia with a growing elderly population. One out of ten was an elder by the year 2000. It is expected that the proportion of young elders and elders will grow in the future. The quantitative and qualitative changes of the population has divergent effects on the country’s economy. For a long time there is a continuous disposition in Sri Lankan population [13-15]. Thus, continuously growing population have effects on economy and development in different ways. Population is in main groups as child population, labor force and elders and children and elders are considered as dependents. Labor force is a great prosperity to a country and that doesn’t mean other two groups are not. Children are future labor force. Elders are the ones who contributed to maintain the economy and these identified as prosperity as well. The effect elders have on the proportion of dependents is a main impact on economy [16-18].

Demographers profess that the 21st century as the age of aging population because of the effects world population face. Population has an impact on economy and society has been affected with the drastic growth of the elderly population. Population aging is a cause of economic issues for a developing country like Sri Lanka. Sri Lanka is the country with fastest aging population in South Asia [19,20]. However, it is expected that the elder population

would grow as between 1964-2001 the growth rate of elderly proportion was more than the annual growth rate. Therefore it is evident that it is compulsory to find a solution for this situation.

Though it is identified that the growing number of elderly population would be a challenge in the future, no action or solution or no principle is created to avoid it. Hence this study would be important to identify the economic issues with regard to the growth of elderly population and to focus on the seriousness of the situation [21-23]. Most people can engage in work even they get old, especially given that they have much more experience. They have prodigal knowledge and if that knowledge is to be used, the elders also should have a contribution to the economy. If the elders are kept away from development, there would be difficulties. In this background it is appropriate to study on the potentiality getting these involved in the economy and to manage the growth rate of elderly population and involve them in economic development. There are many ways in which it is possible to have elderly population engaged in work [24-26]. That would lessen the impact they have on economy. An elder can be regarded as a potential in economic affairs. It can be decided whether elders can involve in economic affairs by investigating their economic feasibility.

1.1 Economic Feasibility of Elderly People

Economic feasibility is divided into mental feasibility and physical feasibility. Mental feasibility is as important as the physical feasibility for a successful life. Hence a healthy mental state is mental feasibility. This is a prominent matter now a days is that the mental state of the elders get weakened as they grow older. They do numerous activities to enhance their mental satisfaction.

The ability to physically engage in economic affairs is called physical feasibility. So, it is possible to study whether elderly population can engage in economic affairs by measuring their ability to physically engage in such work. According to above mentioned data, the life expectancy is growing year by year. Thus, the retirement age should undergo some changes, below information can be presented according to the collected data for this research. If the retirement age is to be extended, the mental and physical feasibilities of the elderly population should be examined.

2. LITERATURE REVIEW

2.1 Elderly Population

Indralal de Silva, (2018) in his study “The Age Structure Transition and the Demographic Dividend:

An Opportunity for Rapid Economic Take-off in Sri Lanka” emphasizes that within the recent decades the Sri Lankan population has increased 8 times in gender and age structures in a non-reversible way. This paper reflects the future population and a systematic growth in Sri Lankan population. Thus, indicates a population of 18.7 million in 2001, 20.5 million in 2011 and 22 million in 2030. The paper shows that the pressure of growing population on the economy can be lessened by increasing the labor employment and females’ knowledge on technology and arts. Therefore, long term action should be taken to minimize the particular situation in Sri Lanka. Moreover, the paper discusses the measure to minimize the impact on the economy by the elderly population and the rate of elderly dependents despite of the need for the measures for an efficient social security program for elderly people and disabled [27].

Bloom &Canning (2008) point out in “ Global Demographic Change, Dimensional and Economic Significance” that during the Second World War, demography changed drastically due to the decreasing of infant deaths and fertility. The paper depicts that there were changes in the age structures in this situation and the prominent signs of the development of adults’ health and life expectancy with the growth of adult population. Hence, they assume that, based on savings and labor force, population aging can be useful for the economy. As they point out, population aging is a new phenomenon and based on age structure change, the per-capita income can fall in developed countries. With an approach of accounting, the study illustrates the structural matters related to elderly population. Moreover, the unfavorable impact on economy by the elderly population and the pressure on their payment is also discussed. Thus, despite of the fact that it was concluded that it was necessary to arrange policies and population institutes for the labor market, it doesn’t point out the actions for minimizing the impact of elderly population on economy, controlling the unfavorable situation of changing the retirement age and the elderly dependent proportion.

2.2 Elderly Dependent Proportion

Shariful Islam, (2020) in the study of “Dependency ratios: Modification of the traditional formulas and their impact on Bangladesh” points out the effects of updating the elderly dependent proportion. According to the formula used to update the elderly dependent proportion in 1975, it was 10.5% and according to the updated second formula it showed 17.8% while the traditional formula showed 5.9%. Based on the traditional formula’s estimations the updated formulas showed that it is underestimated 1.5 million of elderly

people. Updated formula of 2020 showed 12% of elderly dependent proportion while the traditional formula showed 7.7%. The updated formula also depicts that in 2040 the percentage would grow double and the traditional formula has underestimated it with 9.6 million. However the study has not focused on whether the elderly population can continue to work and the fields they can work in.

2.3 Elderly Population and Economy

Menike (1998) in “Economic Consequences of Population Aging in Sri Lanka” has pointed out the growth of aging as a challenge in global population and the related economic and social impacts. The main purpose is to identify the economic issues due to elderly population and to evaluate them in rural and municipal levels. The paper demonstrates that as a developing country, Sri Lanka cannot cope up with population aging. This study is discussed in Demographic Transitional Theory and Social Theory and the relative changes of developed countries and Sri Lanka based on qualitative changes according to that. Major purpose is to emphasize on the challenges that might be caused by the elderly population and the anticipated economic challenges. Therefore, it is concluded that the retirement payment from the government, the provident by the private sector and Encouragements by NGOs are not enough related to growing elderly population. Thus, it is proposed that the government should take measurements for the welfare of the elders. Lakmali, (2006) “Elderly Population and Related Problems” has studied that Sri Lanka is facing challenges caused by population aging and how challenges have emerged on economy due to the tares of dependents and deaths. Hence, the study points out that elders should be allowed to contribute to the economy by empowering them mentally and physically.

2.4 Elderly Population and Labor Market

Arunatilake & Vodopovec (2008) in “The impact of Aging on the Labor Market” illustrated the growth of elderly population as an outstanding feature in Sri Lankan population. It focuses on the factors of the methods of retirement and quitting labor market by investigating the consequences of labor market. The paper discloses that the elder workers are working in informal sections for a longer time and get less payment than the younger workers, thus pointing out that there are dual features in the labor market of the developing countries. Therefore, two groups as former job and elderly workers civil workers and regular workers. But, since the workers in private sector retire before the age 60, they are considered as unofficial workers and self-employed.

Marcus (2009) in “Retirement Age of Sworn Members of the Queensland Police Service Entitled to Access Voluntary Retirement at Age Fifty-Five” discussed on the retirement of Queensland sworn members. They serve during the age 55-60 and retire after the age 60. It is identified as a decrement to human resource investment. Here, it is conversed the demographic features with three certain problems and the retirement of the sworn members. Moreover, it presents 5 constituents in retiring a police officer and four of them such as suitability, discipline and interest, pressures and dealings and financial difficulties and flexibility. The study explains that this doesn’t show any statistical importance. It is obvious that these two studies of elderly population and labor market are not focused on extending retirement age and involving elderly people in economic affairs.

3. RESEARCH QUESTION

Sri Lanka is a developing country with a growing elderly population. 12.4% of the population is consisted with elders today. As a developing country, the growing elderly population has become a major challenge to Sri Lanka. The impact of an increasing elderly population can be identified in 3 ways. They are, impact on economy, impact on society and impact on people. The elderly population has generated a challenging situation in the country. The deployment of the most of the population has a huge effect on the economy. The impact can be weakened by letting the elders to contribute to the economy. As the elderly population is regarded as dependents, they can be considered as a burden too. By investigating the possibility of engaging elderly population in economic affairs, solutions can be sought for future difficulties. The research topic is to seek the Economic Feasibility of Elderly Population in Sri Lanka.

4 PURPOSE OF THE STUDY

The study consists one main objective and five sub objectives.

4.1 Main Objective

- Identifying whether elderly population can continue to engage in economic affairs.

4.2 Sub Objectives

- Identifying the nature of economic affairs of the elderly people in the selected area.
- Understanding to why elderly people engage in work

- Identifying to why elderly people quit work
- Understanding the potentiality of involving them in economic work
- Identifying whether the current retirement age in Sri Lanka should undergo a change

5. RESEARCH METHODOLOGY

The elderly population is growing at the moment. Matara, Kegalle and Galle are identified as the districts with the most elderly population in Sri Lanka. Thus, Matara district which is the most populous district was selected for the study. The target compilation is a set of all requirements of the study. The sample is the people above the age 60 in Western Hitthetiya of Matara Secretariat Division which is consisted with 267 participants.

There are two major ways to select a sample, which are, Probability Sampling Method and Non-probability Sampling Method. For a retrieved sample to a representative sample, it should be reasonable and consisted with every feature of the compilation. Therefore, a few layers can be identified based on the specialties of the selected compilation, which means the sample was selected considering the employment of government and private sector other than the agriculture in the area, and government retirees get a relatively high retirement than semi government and private sector retirees. Thus, a Simple Probability Sample was selected from the aforementioned 267 people.

$$n = \text{number of the sample}$$

$$N = \text{compilation} = 267$$

$$e^2 = \text{the margin of error}$$

$$e = 0.10$$

$$n = N / [1 + N (e^2)]$$

$$n = 267 / [1 + 267(0.1 \times 0.1)]$$

$$n = 99.62 \longrightarrow 100$$

A Simple Probability Sample of 100 participants with 90% reliability from the 267 compilation was selected. Simple Probability Sampling was used because of that every unit of the compilation had equal probability to be selected as sample units, sample being huge, every unit was a sample with equal features.

A questionnaire is a common primary data collecting method. Thus, with the literature review and the information gathered by discussing with other people, a systematic questionnaire was prepared according to the purpose of the study for collecting data. The

questionnaire was distributed among all the 100 participants and most of them have answered all questions while a few have skipped some questions.

Data collection is the process of gathering data and sources for answering the research question. Primary data was collected from the 100 people of the sample. Questionnaire is identified as a method which enables collecting a big amount of data within a short period of time. The questionnaire was distributed among the participants. Data was collected with closed questions about their bio information, active labor force and age of retirement. Hence, primary data on mental and physical feasibility was collected. Elderly people in the research sample of elderly population are described and thus their bio information, gender are discussed. Accordingly their basic bio data i.e. their age structure, deployment, education level, age of retirement, job prior the retirement were detected. The data was analyzed considering such basic information. A descriptive analysis was carried on an SPSS software was used to analyze other information. For achieving the purpose of the study, descriptive statistical analysis was done. Under the descriptive statistical analysis, data is brought out as tables, charts and diagrams. Even after classifying the collected raw data, they cannot be analyzed. It would be after arranging the data in a pattern or an order. Then the connection between the data can be analytically presented by the methods of policy analysis and Chi-square tests. Thus, the autonomy among the variables was examined with Inertial Statistical Methods and Chi-square Tests.

5.1 Hypothesis of the Study

Hypothesis is a major tool in a study. Its major task is to disclose testing and monitoring activities. It is useful to use hypothesis testing for making decisions on the existing information. For better decisions, and justifying the taken decisions, the hypothesis testing can be implemented. Therefore, hypothesis testing is useful to find the complementary demonstrating the sample data for the built hypothesis. In a hypothesis assumptions or preliminary conclusions are created while in the hypothesis testing these decisions can be either approved or disapproved. Here, hypothesis can be built as,

H_0 = Annul Hypothesis

H_1 = Alternative

Hypothesis 1

H_{0a} = Based on the gender, no difference in the years they prefer to work.

H_{1a} = Based on gender there is a difference in the years they prefer to work.

Hypothesis 2

H_{0a} = Based on the gender, no difference on the years they want to work.

H_{1a} = Based on the gender there is a difference on the years they want to work.

Hypothesis 3

H_{0a} = Based on the field they were engaged in there is no difference in their preference for a different job.

H_{1a} = Based on the field they were engaged in there is a difference in their preference for a different job.

Hypothesis 4

H_{0a} = After the retirement, there is no difference between the preferred job and the expectations.

H_{1a} = After the retirement, there is a difference between the preferred job and the expectations.

Hypothesis 5

H_{0a} = There are no differences between the age of retirement and whether they are satisfied with the age of retirement.

H_{1a} = There are differences between the age of retirement and whether they are satisfied with the age of retirement.

6. RESULTS AND DISCUSSION

A descriptive analysis was carried using SPSS software. Descriptive data were presented by pie chart, flow chart and table. There are two types of feasibility was analyzed in the result section the economic as Feasibility of the Elders and Mental Feasibility. The next part of the analysis was intended to the nature of the Involvement of Elders in Economic Activities. The final section of the discussion illustrate the result of hypothesis test.

6.1 Economic Feasibility of the Elders

There are two types of economic feasibility of elderly population as economic feasibility and mental feasibility. This section intend to analyze the factors affecting for these both feasibilities.

6.1.1. Physical feasibility

Normally, a person works for 8 hours a day. As the data from the sample, 85% of the participants are used to work more than 8 hours (Fig. 1).

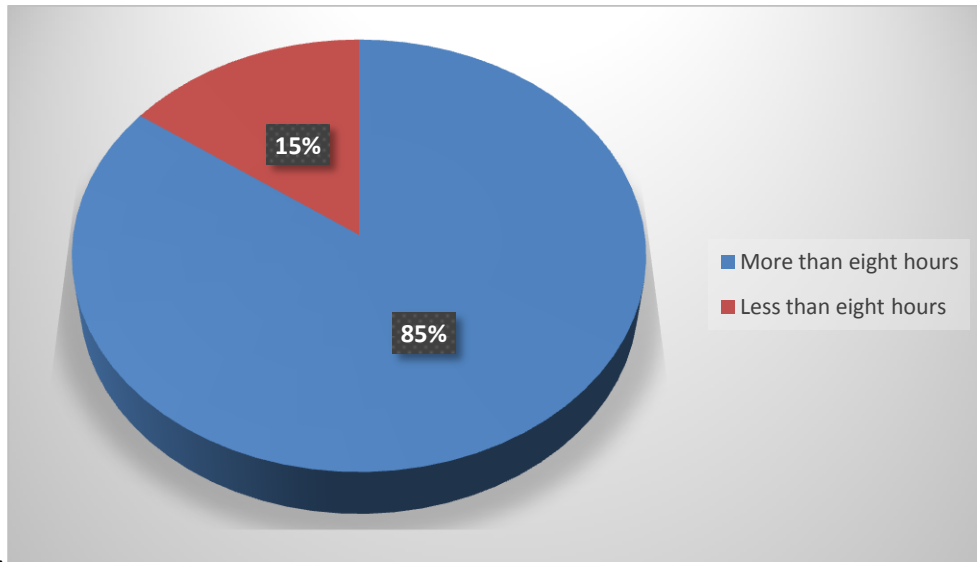


Fig. 1. Working hours per day by older people
 Source: Field Survey, 2021.

Following are their day-today work

- Cooking
- Gardening
- Babysitting
- Other chores

For above activities they spend more than 8 hours a day, so they also work for 8 hours like ordinary citizens.

The above data exhibits that with 80% of eye sight it is possible to continue working. 25% of the sample had a very good eye sight and thus indicated they were physically strong (Fig. 2).

Using the data collected from the questionnaire, information about the participants' hearing ability was retrieved. It is also depicted that except for 21% i.e. 21 participants of the sample, other participants had good hearing ability (Fig. 3).

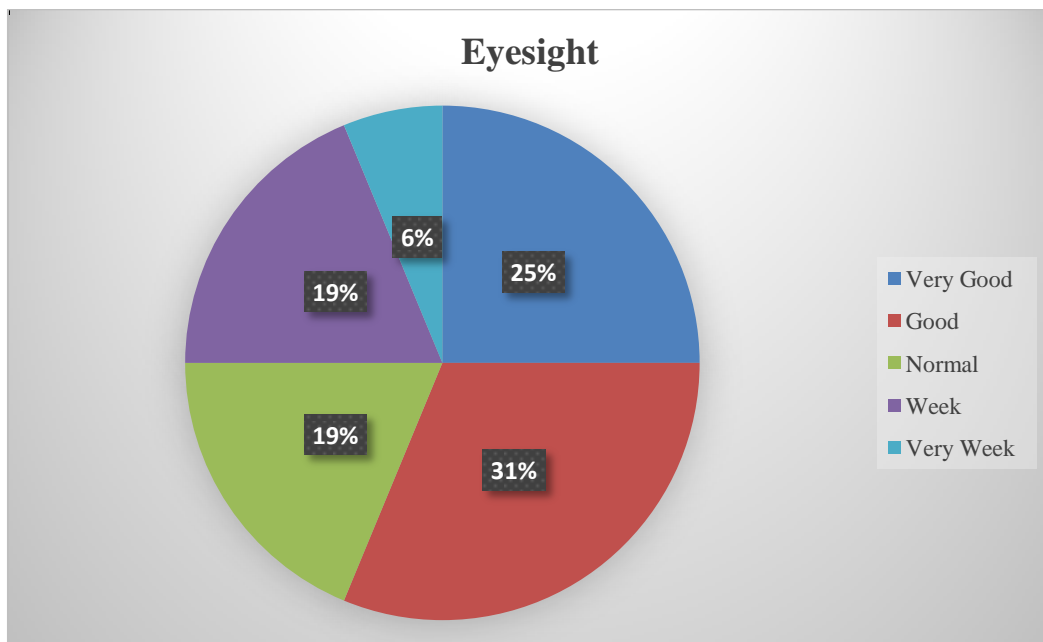


Fig. 2. Eye sight of older people
 Source: Field Survey, 2021

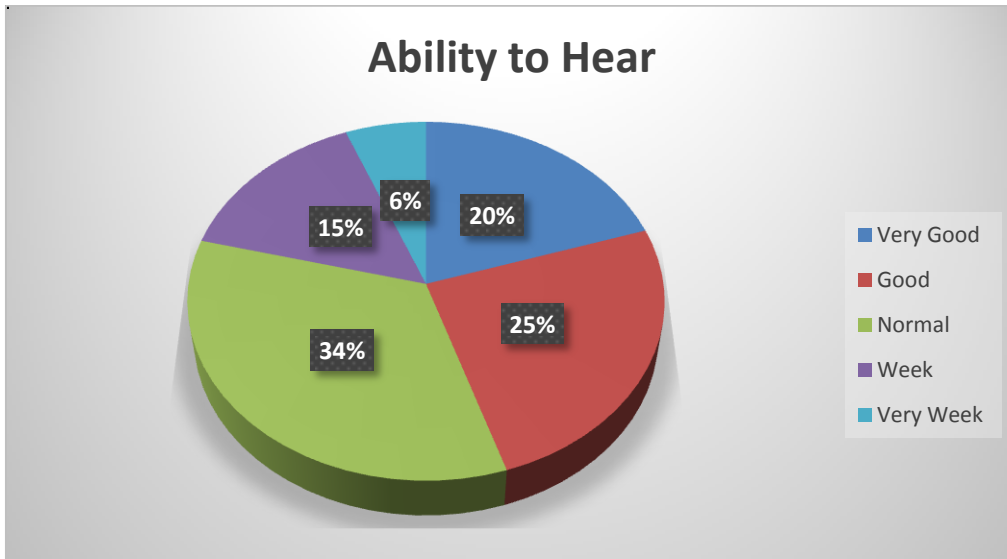


Fig. 3. Hearing ability of older people
 Source: Field Survey, 2021

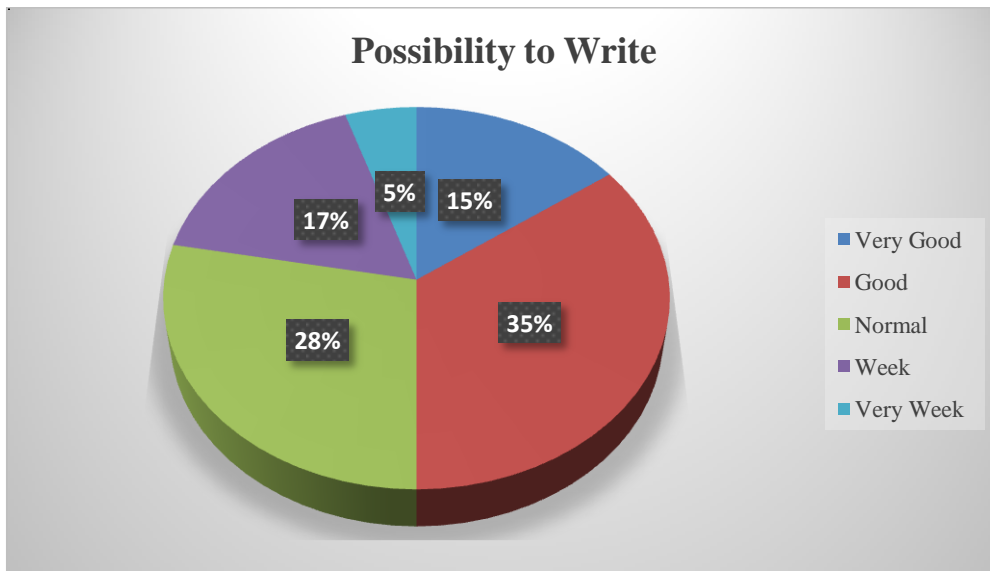


Fig. 4. Writing ability of older people
 Source: Field Survey, 2021

Data indicate that 78% (78 participants) from the sample had a good degree of writing ability (Fig. 4).

Except for 15% which means 85 participants had a higher degree of reading ability (Fig. 5).

As the above data, it is evident that 85% of the participants can work exceeding 8 hours which also means they can continuously work (Fig. 6).

A majority of the participants in the sample is diagnosed with chronic diseases. Thus, there were 57% of participants with chronic diseases while the

rest i.e. 43% were not chronic disease patients (Fig. 7).

6.1.2 Mental feasibility

For a successful life just being physically stable is not enough. So he should be mentally stable too. It is common today that with aging, people's mental health also deteriorates. As stated bellow the contentment on life, leaning to religion for mental satisfaction, whether they listen to the TV or radio and catching up with old friends are studied.

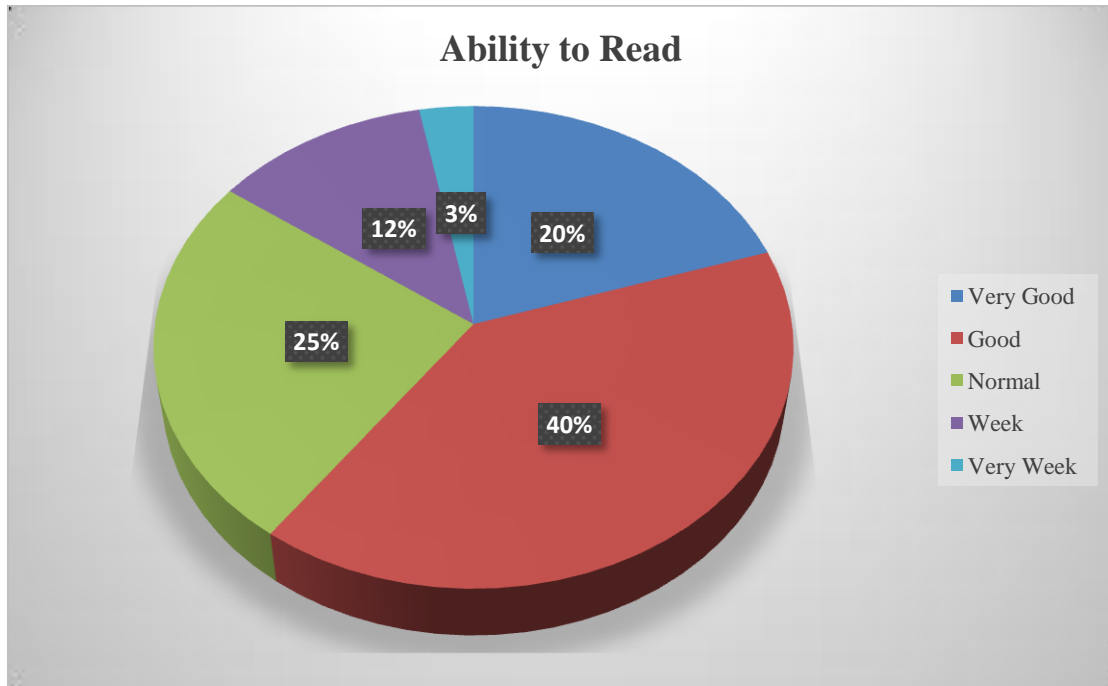


Fig. 5. Reading ability of older people
 Source: Field Survey, 2021

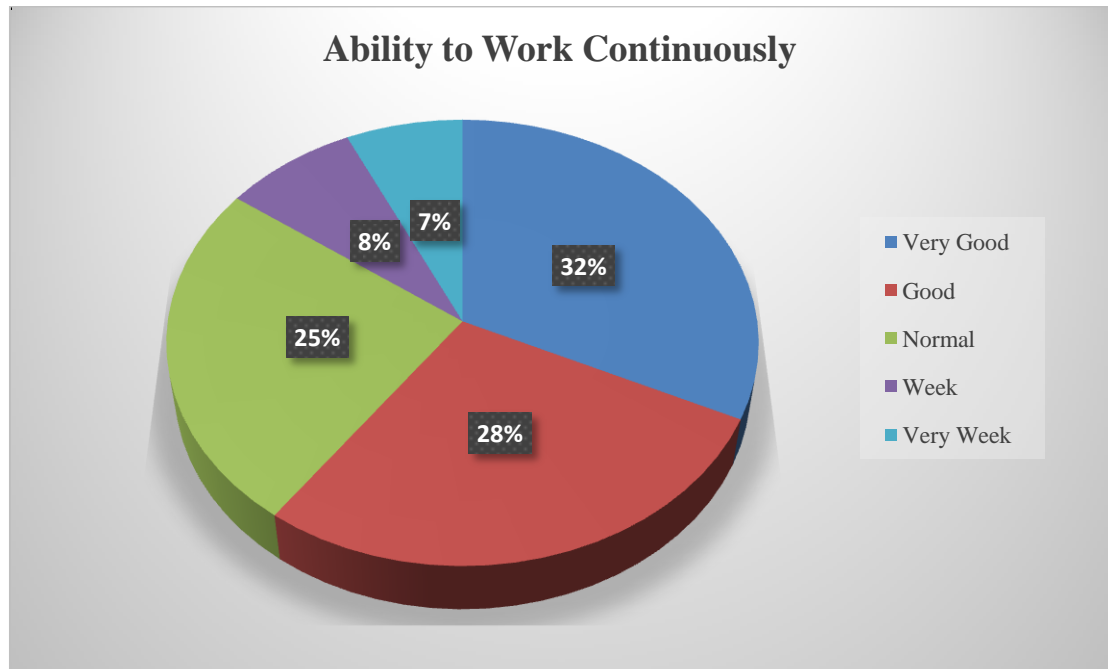


Fig. 6. Elders' ability to work continuously
 Source: Field Survey, 2021

Most of the elderly people show their contentment on life. They also do their day-to-day chores. Unstable mental health is a crucial challenge among the older generation in the present. Because of this many people suffer with various illnesses due to physical and mental health deterioration resulted by the

diseases in nerve system of the elders (Fig. 8). Thus elders are regarded as dependents as their activeness is spent out. However, today elders tend to maintain a good mental as well as physical health. The mental and physical activeness of the sample is obvious, for they feed on healthy food they procure by themselves.

6.2 The Nature of the Involvement of Elders in Economic Activities

It is considerable that as a developing country, Sri Lanka has a higher elderly population and that they do not involve in economic affairs. Therefore, Sri Lanka faces numerous challenges related to growing elderly population. Developed countries, though they also

have a high elderly population manage it. Sri Lanka too can manage this phenomenon by solving the problem by increasing the employment rate of the elderly population. For that, their economic feasibility and their current occupation, in other words, the nature of their involvement in economic activities has to be studied.

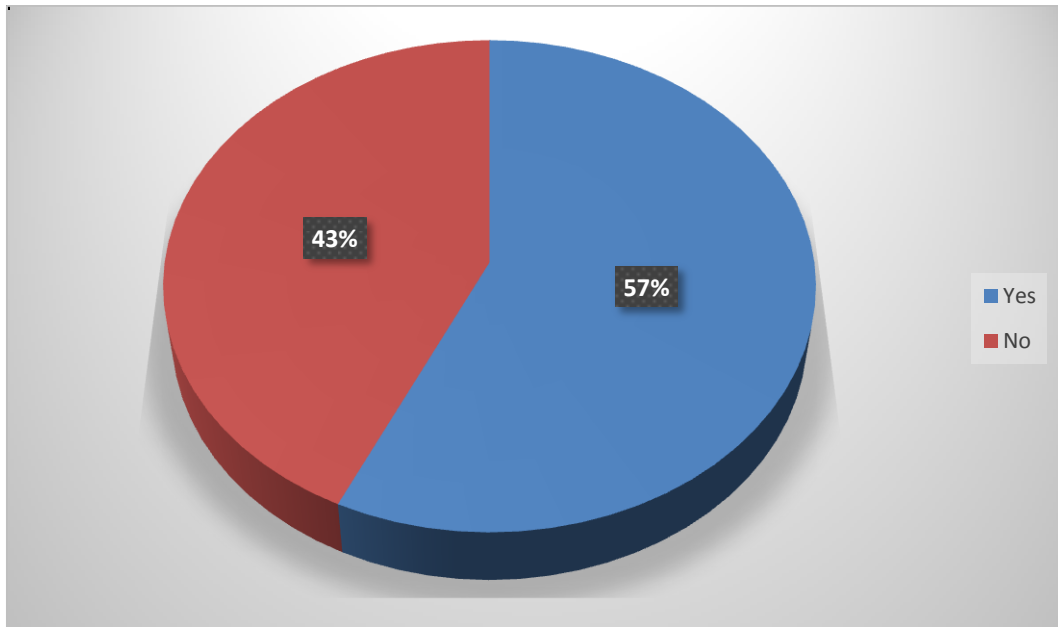


Fig. 7. Effects of chronic diseases of the elders
 Source: Field Survey, 2021

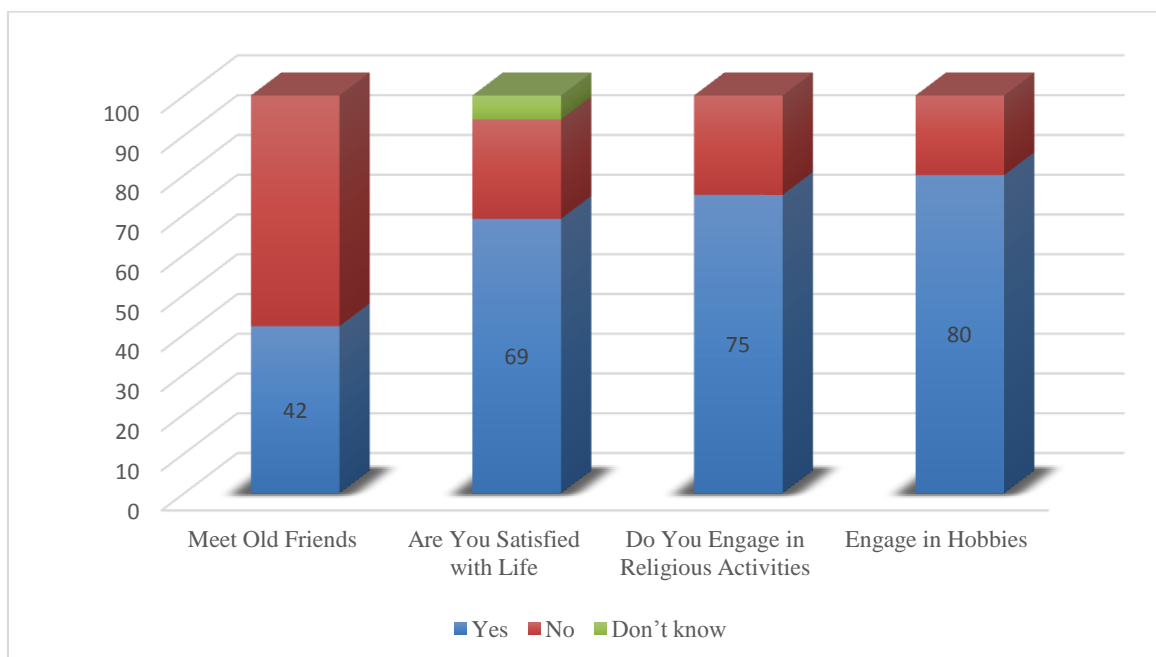


Fig. 8. The nature of activities for mental satisfaction

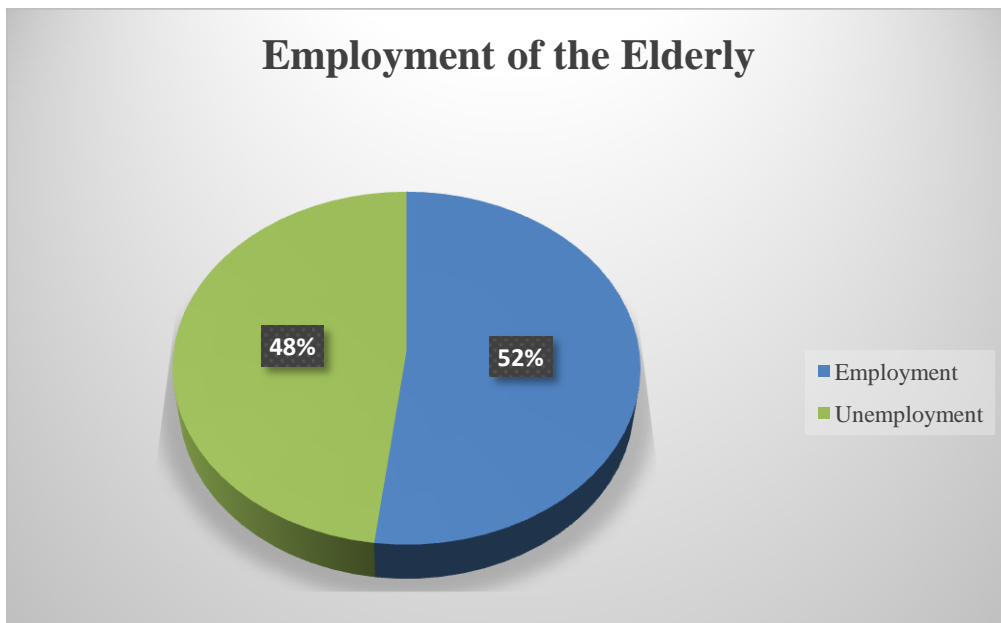


Fig. 9. Employment of the elderly population

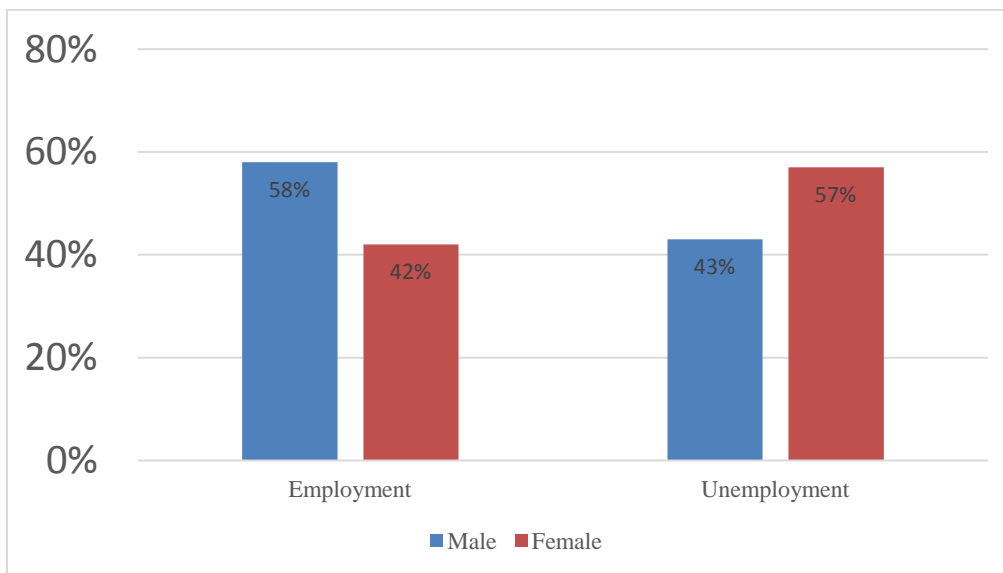


Fig. 10. Employment of the elderly population according to gender

Source: Field Survey, 2021

Majority of the labor force in Sri Lanka is of males. Hence it is clear that the most contribution to employment among the elderly population is also by males, as 58% of the employed older people are males (Figs. 9, 10).

6.2.1 Employment of elderly population according to age groups

The sample of the research is monitored under two groups as,

1. Older people between the age 60-70
2. Older people above the age 70

Accordingly differences between the above two groups were detected. According to the research, 75% between the age 60-70 and 25% above the age 70 occupy in whatsoever job.

There is a clear difference in employment regarding the age groups of elderly people. 52% of the sample is identified as employed and the following is the employment according to age groups (Fig. 11).

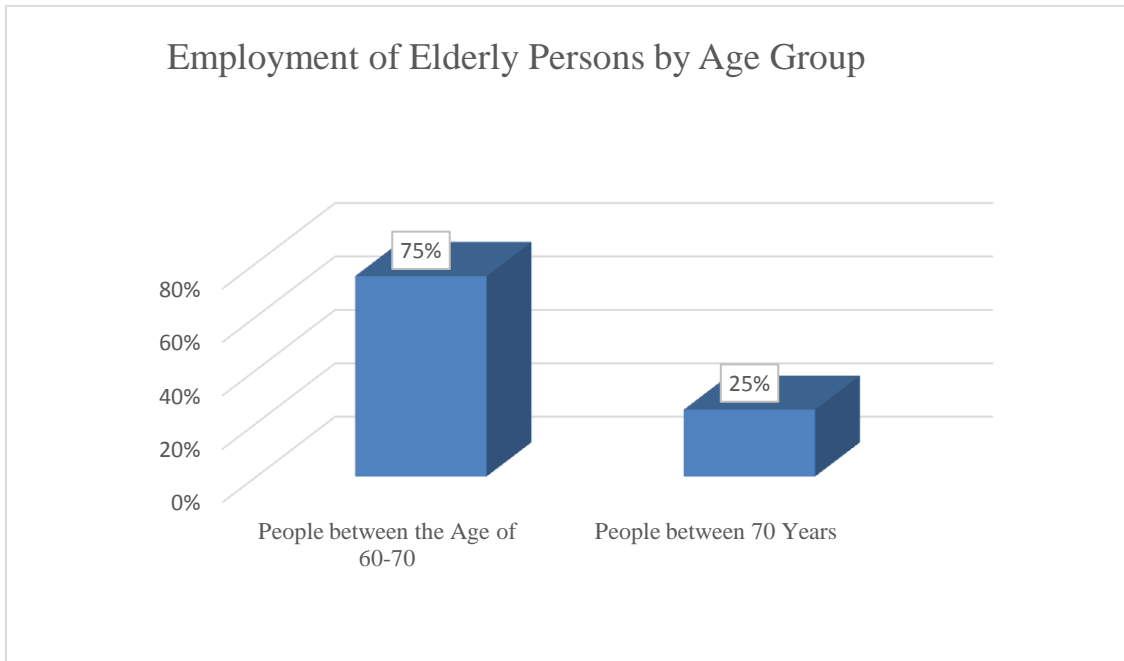


Fig. 11. Employment of the elderly population according to the age groups
 Source: Field Survey, 2021

6.2.2 Economic activities of elderly people according to their fields

1. Agriculture 40%
2. Technical 28%
3. Service 32%

The employed participants were occupied in various economic activities mainly in three fields as agriculture, technical and service. Following is the employment of the participants related to the aforesaid fields. Their occupation in as:

Source: Field Survey, 2021.

For the diversity of employment in different fields, physical, economic and social factors affect.

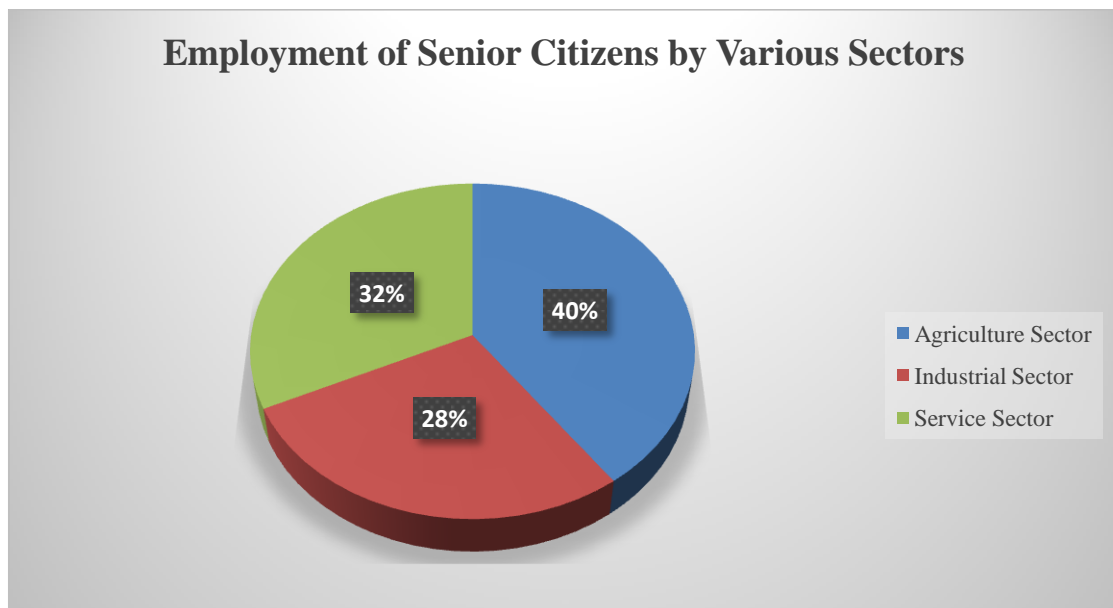


Fig. 12. Employment of elderly population in different fields
 Source: Field Survey, 2021

As the sample, majority is occupied in agriculture given that the selected area of the study is a village area. Yet, since it is close to an urban area and the growth of the population, agriculture activities are minimized compared to the past (Fig. 12). But still agriculture thrives. Thus, 80% of the occupants in agriculture engage in cultivation depending on the congenial climate and the rich soil for rice. Apart from that, 10% of them engage in tea, rubber and coconut fields. Moreover, 20% of the participants work for the service i.e. employees in private sector, traders, retired teachers and executives.

6.2.3 Connection between the economic activities prior to the retirement and after the retirement

It is important to acknowledge the connection between economic activities the participants did prior to the retirement and after the retirement in order to study the nature of the elders’ involvement in economic affairs. Thus the fact whether the current occupation in economic activities are affected by the prior-retirement economic activities, should be focused. It is difficult for a person to occupy in a different job other than their previous long term job let alone an older person. It would take a long person for them to adjust and practice for that. Therefore, older people would always opt for continuing the job they did. Furthermore, 40% of the older people occupy in agriculture and majority of them do so from the beginning. Hence, 71% of the 40% proportion of elders have been engaged in agriculture even before retirement while the other 29% has turned for agriculture after the retirement. Usually, most of the employees in the government sector serve for a certain period of time and retire by the age 60-65. Therefore they have to engage in other jobs for facing financial challenges after retirement. Though the workers in agriculture get to continue their work after retirement, employees of the technical and

service fields have to look for another job after retirement.

6.3 Reasons Why Older People Engage in Economic Activities

Various factors can influence the aging of the elderly in many developing countries, including Sri Lanka. There is no age limit. They contribute to the workforce up to the maximum age at which they can deploy. Different reasons affect elderly contributing to economic affairs. Elderly people are not people who directly contribute to the workforce in terms of priority. They are indirectly involved in the labor force and are involved in various economic activities. It is very important to identify the reasons that motivated them. According to this survey, various factors influenced the elderly people to engage in economic activities. The survey found that an impact had been made.

- Lack of Retirement Benefits
- Insufficient Retirement Benefit
- Not receiving any subsidy from the government
- Reluctance to let other people take care of their own needs
- Lack of support for children and relatives for their own needs
- Having depends
- Willingness to do a job
- Other

One or more of the above factors influenced the individual's ability to engage in economic activity.

According to the data collected from the questionnaire, the following are the reasons why older people are involved in economic activities (Table 1).

Table 1. Reasons why older people engage in economic activity

Factor influencing economic activity	Percentage
Lack of Retirement Benefits	22%
Insufficient Retirement Benefit	8%
Not receiving any subsidy from the government	17%
Reluctance to let other people take care of their own needs	18%
Lack of support for children and relatives for their own needs	4%
Having depends	10%
Willingness to do a job	19%
Other	2%

Source: Field Survey, 2021

6.4 Reasons Why Older People are Leaving the Economic Activity

Economic viability of the elderly can be introduced as a very important target group. According to the survey, 48% of the elderly are unemployed, of which 43% are men and 58% are women. In particular, the fact that the unemployment rate is over 40% shows that most of the elderly are out of work (Table 2). Employed people are also employed in certain jobs but many do not receive adequate pay. Poverty is also high, especially among the rural elderly in Sri Lanka. 10.7% of the poverty stricken population in Sri Lanka is people aged 60 and above. Therefore, in this study, the factors influencing the withdrawal of the elderly from the economic activities of the upper echelons were therefore listed in order of priority as indicated in Fig. 14.

According to the study, 73%, are dissatisfied with their retirement age preferring to continue their work but got retirement age due to various institutional reasons. They want to continue working.

6.4.1 Identify whether there is a difference in the number of years a person wants to work after retirement according to gender

Hypothesis 1

H_{0a} : There is no difference in the number of years you wish to work after retirement depending on gender.

H_{1a} : Depending on the gender, there is a difference in the number of years one wishes to work after retirement.

Table 2. Analysis of the retirement life of the elderly

Factor influencing withdrawal from economic activity	Percentage
The prevailing competitive economic pattern	25%
Lack of technical knowledge	21%
Low level of education	17%
Withdrawal of women from employment on cultural background	13%
Lack of government assistance	9%
Transfer of the traditional property to children	7%
Molecular Biology Fluidity	6%
Other	2%

Source: Field Survey, 2021

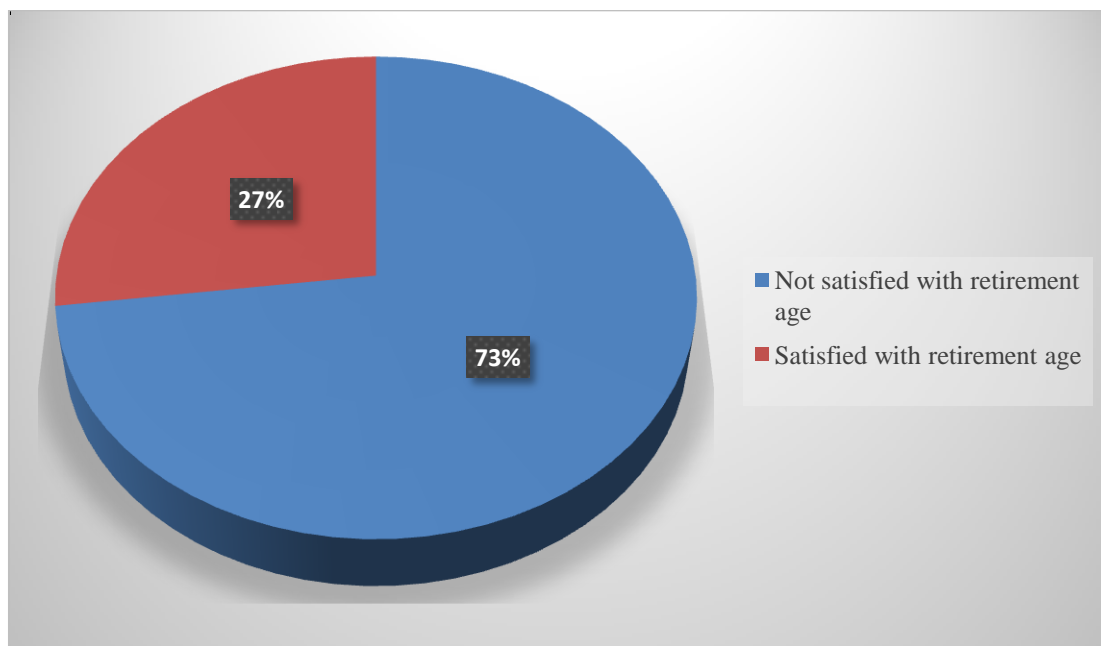


Fig. 14. Satisfaction with retirement age

Source: Field Survey, 2021

Table 3. Result of the hypothesis test 1

Hypothetical	X^2_{cal}	df	P-value	Determine	Conclusion
H _{1a}	4.137 ^a	5	0.530	H _{0a} :Accepted	It can be said with 95% confidence that there will be no change in the number of years of working age after retirement depending on gender.

Source: Field Survey, 2021

According to the above 5% Chi-square test, the P value is greater than 0.05 so the H₀ hypothesis is accepted indicating that the two variables are independent and therefore the difference in the number of years willing to work after retirement according to gender. It can be concluded with 95% confidence that it does not exist. It is concluded that there is no specific relationship between the two variables as the calculated value is less than the expected value. The estimated value of the age at which women are willing to work for 4 years after retirement is 1.4 and the expected value is 3. Calculated above the expected value. The low value makes it clear that there is no specific relationship between the two variables (Table 3).

6.4.2 Identifying whether there is a difference in the reluctance to work after retirement in terms of gender

Hypothesis 2

H_{0a}: There is no difference in the reluctance to work after retirement in terms of gender.

H_{1a}: There is a difference in the reluctance to work after retirement in terms of gender.

The H₀ hypothesis is accepted because the P value is greater than 0.05 based on the above 5% Chi-square

test which shows that the two variables are independent and that there is no difference between men and women who want to work after retirement. It can be concluded with 95% confidence that the calculated value of the willingness of men to work after retirement is 16 and the expected value is 15.2 (Table 4). The calculated value is higher than the expected value, indicating that there is a special relationship between these two variables. The calculated value of a person's reluctance to work after retirement is 3 and the expected value is 2.2. The calculated value is higher than the expected value indicating that there is a specific relationship between the two variables.

6.4.3 Identifying if there is a change in the occupation of the employer after retirement Depending on the occupation of the occupation

Hypothesis 3

H_{0a}: There is a change of occupation in the occupation of the retiree depending on the occupation of the occupation.

H_{1a}: There is a change of occupation in the occupation of the employer after retirement.

Table 4. Result of the hypothesis 2 test

Hypothetical	X^2_{cal}	df	P value	Determine	Conclusion
H _{1a}	0.544 ^a	1	0.461	H _{0a} :Accepted	With a 95% confidence level, it can be said that there is no change in the willingness or unwillingness to work after retirement.

Source: Field Survey, 2021.

Table 5. Result of the hypothesis 3 test

Hypothetical	X^2_{cal}	df	P-value	Determine	Conclusion
H _{1a}	16.981 ^a	15	0.320	H _{0a} :Accepted	With a 95% confidence level, it can be said that there is no change in the job you want to pursue after retirement.

Source: Field Survey, 2021

The H0 hypothesis is accepted because the P value is greater than 0.05 according to the above Chi-square test performed at the 5% Verse level, indicating that the two variables are independent. Accordingly, it can be concluded with 95% confidence that there will be no change in the occupation preferred to be employed after retirement. The value of 4 is 2.2 and the expected value is higher than the expected value, indicating that there is a special relationship between the two variables. The higher the value, the more likely it is that there is a specific relationship between the two variables (Table 5). Also, the estimated value of quasi-public service retirees to return to business is 3.9 and the expected value is 1.9. Retirees working in the private sector also have a calculated value of 2 for re-cultivation and the expected value is 1.8. The expected value is higher than the calculated value. There are two calculated values of replanting and the expected value is 1.8 which is higher than the expected value, indicating that there is a special relationship between these two variables.

6.4.4 Identifying whether there is a difference between the job you want to pursue after retirement and what expect from it

Hypothesis 4

H_{0a} : There is no difference between the job you want to pursue after retirement and what you expect from it.

H_{1a} : There is a difference between the job you want to pursue after retirement and what you expect from retirement.

According to the above Chi-square test performed at 5% level H0 hypothesis is accepted as the P value is greater than 0.05, which indicates that the two variables are independent. It can be concluded with a

level of reliability of 95% that there is no change in the occupation one would like to engage in after retirement depending on the field of employment performed. The expected value of a salary and the teaching profession is 3 and the expected value is 2.9 which indicates that there is a special relationship between these two variables as the calculated value is higher than the expected value. Also, the calculated value of cultivation and self-satisfaction expectation is 4 and the expected value is 3.6 (Table 6). The calculated value is higher than the expected value, indicating that there is a special relationship between these two variables. The calculated value of cultivation and expectation to spend time is 2 and the expected value is 1.8. Since the calculated value is higher than the expected value, it is implied that there is a specific relationship between these two variables. The calculated value of cultivation and expectation to spend time is 2 and the expected value is 1.8. The fact that the calculated value is higher than the expected value suggests that there is a specific relationship between the two variables.

6.4.5 Recognize whether there is a difference between retirement age and retirement age satisfaction

Hypothesis 5

H_{0a} : There is a difference between retirement age and retirement age satisfaction .

H_{1a} : There is a difference between retirement age and retirement age satisfaction.

According to the above Chi-square test performed at 5% level H0 hypothesis is accepted as the P value is greater than 0.05 which indicates that the two variables are independent. Retirement age over 55 years is 40% satisfaction and 60% dissatisfaction, and

Table 6. Result of the hypothesis 4 test

Hypothetical	X ² cal	df	P-value	Determine	Conclusion
H _{1a}	12.199 ^a	10	0.272	H _{0a} : Accepted	It can be said with 95% reliability that there is no difference between the job you want to pursue after taking it and what you expect from it.

Source: Field Survey, 2021

Table 7. Result of the hypothesis 5 test

Hypothetical	X ² cal	df	P-value	Determine	Conclusion
H _{1a}	4.081 ^a	4	0.395	H _{0a} : Accepted	It can be said with 95% reliability that there is no difference between retirement age and retirement age satisfaction

Source: Field Survey, 2021

these two variables. The calculated value is 2 and the expected value is 2.4 which is higher than the expected value, indicating that there is a special relationship between the two variables. The retirement age of retirees over the age of 60 is 22.2% (Table 7). The calculated value is 14 and the expected value is 13. The fact that the calculated value is greater than the expected value suggests that there is a specific relationship between these two variables as well.

7. CONCLUSION

The objectives of this study were to identify whether older people over the age of 60 have the potential to engage in economic activities, to identify the nature of economic activity of older people in the study area, and to identify the reasons why older people are more likely to engage in economic activities. To find out the reasons for being, to look at the potential that they can contribute to the economy, to see if there should be a change in the retirement age, and so on. Accordingly, by the end of this study, older people will be considered as non-contributors to the economy, although they will actively contribute to the economy and raise their retirement age as people who are financially viable and who can contribute to the economy.

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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