

**ECONOMIC INDEPENDENCE AND PRODUCTIVE  
ENGAGEMENT OF SENIOR CITIZENS IN RURAL AREAS  
OF KERALA**

*Thesis Submitted to the University of Calicut  
for the Award of the Degree of*

**DOCTOR OF PHILOSOPHY IN ECONOMICS**

**BY**

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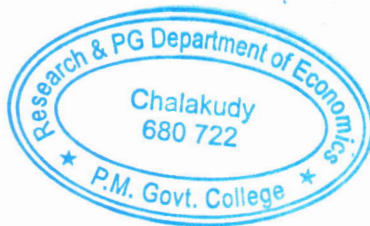
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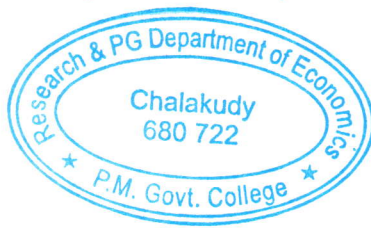
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## DECLARATION

I, **Sathya Prakash. P** hereby declare that the thesis entitled “**ECONOMIC INDEPENDENCE AND PRODUCTIVE ENGAGEMENT OF SENIOR CITIZENS IN RURAL AREAS OF KERALA**” submitted by me for the award of the Degree of Doctor of Philosophy in Economics to University of Calicut is the original work done by me under the guidance and the supervision of **Dr. Sinitha Xavier**, Research Supervisor and Assistant Professor, Research and Post Graduate Department of Economics, Panampilly Memorial Government College, Chalakudy. I also declare that this thesis has not been submitted to any other University for the award of any other degree, diploma, associate-ship, fellowship or title or recognition and no plagiarism is made in the thesis.

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## ACKNOWLEDGEMENT

First and foremost, I would like to thank the Almighty for giving me the strength, knowledge, ability, and opportunity to undertake this research and to persevere and complete it successfully. Without his blessings, this achievement would not have been possible.

Help comes from various forms and from various persons. Acknowledging and appreciating their efforts is a way to show respect and gratitude for their kindness and support. I wish to express my sincere gratitude to all the wonderful persons who have helped me to accomplish my greatest dream to become a reality.

I am really running short of words to express my gratitude to my research supervisor, **Dr. Sinitha Xavier**. I could not have undertaken this journey without her blessings. Teachers are always equal to God. For me, she is the one who is both human and divine and taught me to dream big and not to go for excuses. I still remember her words that success and excuses never meet each other. I am truly fortunate to have had the opportunity to work under her guidance. Her endurance, promptness, and alacrity to engage in thoughtful discussions, even during her challenging times, have been a source of immense inspiration to me. Her guidance has not only contributed my academic growth but has also instilled in me a deeper passion for the subject, further research, and acquiring knowledge. Her rigorous inquiry has inspired me to push the boundaries of my knowledge and explore new avenues in my research. Her relentless advice to read more and write more and her insightful feedback have played a pivotal role in refining my ideas, concepts, and methodologies, ultimately enhancing the quality of my work. I would also like to acknowledge her role in nurturing collaborative and invigorating research environment. Now I utilise this chance to express my heartfelt gratitude to her for the unwavering and inestimable support and motivation throughout the course of my research. Her guidance, expertise, and constant encouragement have been instrumental in shaping the direction of my work and ensuring its successful completion. I dedicate my thesis for her and I will remain grateful to her throughout my life.

I wish to express my sincere gratitude to **Shri. Albert Antony**, the Principal of Panampilly Memorial Government College, Chalakudy, and **Dr. Jojomon N. A**, the former Principal of Panampilly Memorial Government College, Chalakudy, for their unconditional support, guidance, and inspiration. With a deep sense of gratitude, I remember **Shri. Shinto M. Kuriakose**, the Head of the Department of Economics and the other members of the faculty of the Department of Economics, Panampilly Memorial Government College, Chalakudy for their support. I take this opportunity to thank **Dr. Chacko Jose. P, Dr. Zabeena Hameed,**

**Dr. Madhusudhanan Kartha** and **Dr. Shefeer Kappil** for their valuable suggestions and guidance during the course of the study.

I express my sincere gratitude to **Dominick Sir**, former employee of the State Planning Board, Kerala, the staff of Directorate of Social Justice Department, Vikas Bhavan, Thiruvananthapuram and the librarians of Centre for Development Studies (CDS) and C.H.M.K Library, University of Calicut for their directions and kind help in collecting the secondary data for the study.

Gratitude should also go to the staff in the Directorate of Research, University of Calicut and the entire staff of the administrative section, library and non-academic section of Panampilly Memorial Government College, Chalakudy, for their immense help and support.

Let me, sincerely express my gratitude to all the senior citizens, who are impacted, from the Noolppuzha Panchayat, Thirunelli Panchayat, Thondernadu Panchayat, and Thariode Panchayat of the district of Wayanad and Vattavada Panchayat, Kanthalloor Panchayat, Mankulam Panchayat and Kumli Panchayat of the district of Idukki for their co-operation and sparing their time for me.

I am also grateful to my fellow research scholars Dr. Sruthi K. S, Dr. Vibini K.R, Fr. (Dr) Celestine P. F, Dhanusree Ullas. K, Naval Kishore. S, and Mrs. Anjali Prakash and the research scholars from the Department of Commerce for their help, feedback, and moral support. I would like to extend my sincere gratitude to Steve Lal and Sr. Anna Maria Sunny for being part of my journey.

I would like to express my deep sense of gratitude to the members of my family, especially my beloved son Yuwan Deep and my husband Pradeesh, relatives and friends. Their belief in me has kept my spirit and motivation high during the years of my Ph. D. I would like to acknowledge Joseph Sir, for his fatherly love and care. His words of blessings and concern, made me to feel the presence of my father.

Lastly, I would like to mention Akhil Anto, Saji Thuravoor, Parvathy, Balu, and Kunjappu for their unquantifiable help and support in each and stage of my research.

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## ABBREVIATIONS

AC	Air Conditioner
AEI	Access to Economic Institutions
AGFI	Adjusted Goodness of Fit Index
AIS	All India Services
ALP	Alappuzha
APY	Atal Pension Yojana
AVE	Average Variance Extracted
AYUSH	Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy
BKPAI	Building a Knowledge Base on Population Ageing in India
BPL	Below Poverty Line
CB-CFA	Co-variance Based Confirmatory Factor Analysis
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CHC	Community Health Centre
CR	Composite Reliability
CRISIL	Credit Rating Information Services of India Limited
DF	Degrees of Freedom
DMR	Decision-Making Role
ECF	Economic Factors
ECK	Economic Knowledge
EKM	Ernakulam
EPP	Encouragement for Productive Participation
F&CS	Food and Civil Supplies
FMW	Family Well-being
GFI	Goodness of Fit Index
HOPE	Health of Privileged Elder
ICAI	Institute of Chartered Accountants of India
ICM	Identity Capital Model
IDK	Idukki
IDOP	International Day of Older Persons
IDW	Individual Well-being
IFA	International Federation on Ageing
IGNOAPS	Indira Gandhi National Old Age Pension Scheme
IIPS	The International Institute for Population Sciences
AC	Air Conditioner
AEI	Access to Economic Institutions
AGFI	Adjusted Goodness of Fit Index
AIS	All India Services
ALP	Alappuzha
APY	Atal Pension Yojana
AVE	Average Variance Extracted
AYUSH	Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy
BKPAI	Building a Knowledge Base on Population Ageing in India
BPL	Below Poverty Line
CB-CFA	Co-variance Based Confirmatory Factor Analysis
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index

CHC	Community Health Centre
CR	Composite Reliability
CRISIL	Credit Rating Information Services of India Limited
DF	Degrees of Freedom
DMR	Decision-Making Role
ECF	Economic Factors
ECK	Economic Knowledge
EKM	Ernakulam
EPP	Encouragement for Productive Participation
F&CS	Food and Civil Supplies
FMW	Family Well-being
GFI	Goodness of Fit Index
HOPE	Health of Privileged Elder
ICAI	Institute of Chartered Accountants of India
ICM	Identity Capital Model
IDK	Idukki
IDOP	International Day of Older Persons
IDW	Individual Well-being
IFA	International Federation on Ageing
IGNOAPS	Indira Gandhi National Old Age Pension Scheme
IIPS	The International Institute for Population Sciences
IPOP	Integrated Programmes for Older Person
KKD	Kozhikode
KLM	Kollam
KNR	Kannur
KSD	Kasargode
KSSM	Kerala Social Security Mission
KTM	Kottayam
LASI	Longitudinal Ageing Study in India
LIC	Life Insurance Company
MPM	Malappuram
NCOP	National Council for Older Persons
NGO	Non-Governmental Organization
NIA	National Institutes of Ageing
NIH	National Institutes of Health
NISD	National Institute of Social Defense
N-OYT	Non-Own Your Telephone
NPHCE	National Programme for the Health Care of Elderly
NPS	National Pension System
NPOP	National Policy on Older Persons
NS	Not Significant
OBC	Other Backward Caste
OF	Outcome on Family
OI	Outcome on Individual

OPD	Outpatient Department
OS	Outcome on Society
PFRDA	Pension Fund Regulation and Development Authority
PG	Post Graduation
PHC	Primary Health Centre
PKD	Palakkad
PMJAY	Pradhan Mantri Jan Arogya Yojana
PMVVY	Pradhan Mantri Vaya Vandana Yojana
PNT -	Pathanamthitta
PPO	Pension Payment Order
PPP	Public Policy and Programmes
PRR	Personal Responsibility
PRS	Passenger Reservation System
RBI	Reserve Bank of India
RMSEA	Root Mean Square Error of Approximation
RSBY	Rashtriya Swasthya Bima Yojana
SC	Schedules Caste
SCHIS	Senior Citizen Health Insurance Scheme
SE	Standard Error
SEM	Structural Equation Model
SES	Sources of Economic Socialisation
SOF	Social Factors
SOW	Social Well-being
SSLC	Secondary School Leaving Certificate
ST	Scheduled Tribe
TPA	Third Party Administrator
TSR	Thrissur
TTE	Traveling Ticket Examiner
TV	Television
TVM	Thiruvananthapuram
UAE	United Arab Emirates
UK	United Kingdom
UN	United Nations
UNIDOP	United Nations's International Day of Older Persons
USA	United States of America
UT	Union Territories
VIP	Very Important Person
WYD	Wayanad
WHO	World Health Organisation

## ABSTRACT

Kerala grabs the attention of the whole world on behalf of its greying population. Kerala is greying faster than any other state in India. The increasing share of the senior citizens to the total population along with the ever-increasing old-age dependency ratio and the high demand for social security form the focus of the present study. The current research work made an enquiry to investigate the multi-faceted perspectives and challenges of the senior citizens such as the economic independence and the productive engagements in the rural areas of Kerala.

Human Capital Theory propounded by Gary Becker is used as the theoretical background of the study and the Model of Economic Independence and Productive Engagement in Old Age and the Model of Productive Engagement in Later Life are the two models used in the study. According to the Human Capital Theory, human capital can be accumulated by providing education, training, and health care services. Since life expectancy is high in the state of Kerala, it is essential to invest in education, training, and health care to convert senior citizen's abilities and skills into human capital, because they are a productive asset and earns income not only for themselves but also for the family and for the society too. The Model of Economic Independence and Productive Engagement in Old Age investigate the mediating role of personal responsibility in the relationship between economic independence and encouragement in productive participation of the senior citizens in the rural areas of Kerala. The Model of Productive Engagement in Later Life consists of two parts: antecedents and outcomes. The antecedents include three types of determinants-Social Factors, Economic Factors and Public Policy and Programmes. These determinants influence the productive behaviours of the working and care-giving senior citizens. Working and care-giving activities are viewed as an intermediate outcome. Ultimately, the working and care-giving activities have a multi-level effect on individual well-being, family well-being and social well-being.

The first objective of the present research work was to study the involvement of the senior citizens in economic activities. The involvement of the senior citizens in economic activities were analysed separately for the elderly main workers and elderly marginal workers. The analysis based on the Census data from the years 1991, 2001 and 2011, the present study found out that the senior citizens in the rural areas were more vulnerable than the senior citizens in the urban areas and the involvement of the senior citizens in rural areas was lower than that of the senior citizens in urban areas. In the year 1991, 23.71 per cent of the senior citizens were engaged in economic activities and it was declined to 17.36 per cent during the year 2001. After, a sharp decline, their involvement was again increased to 18.5 per cent during the year

2011. The marginal workers among the senior population constitute 3.12 per cent during the Census year 1991 and it increased to 5.23 per cent during the Census year 2001. During the year 2011, 5.89 per cent of the elderly population were marginal workers. The correlation between the proportion of the elderly working population to the total elderly population was - 0.5449, which means that there exists a negative moderate relation between the proportion of the elderly working population and the elderly population. The present study concentrates on the senior citizens in the rural areas, especially the senior citizens between the age group of 60-69, who are considered as healthier and more active than the senior citizens between the age group of 70-79 and senior citizens aged 80 years and above.

The second objective of the study was to identify the factors of economic independence which encourage the senior citizens to engage in productive activities. The IBM SPSS AMOS Graphics 21 software package was used for the development of the mediation model, “Economic Independence and Productive Engagement at Old Age”, and the bootstrapping method was used for the purpose of evaluating the significance of the mediation in the model. The model “Economic Independence and Productive Engagement at Old Age” concluded that the senior citizens in the rural areas of Kerala were engaged in productive activities due to their own preference to work or engage in productive activities. The senior citizens are employed not out of compulsion or obligation. Thus, the government should initiate measures to help the senior citizens in attaining economic independence, which can be accomplished by providing economic knowledge, widening sources of economic socialisation, facilitating independent access to economic institutions and to promote their role in decision-making skills. The study analysed four constructs of economic independence such as independent access to economic institutions, economic knowledge, sources of economic socialisation, and decision-making role by using one-sample t test, independent t-test, and one-way ANOVA.

The study also analysed the socio-economic status of the senior citizens in the rural areas of Kerala and found out that 19.53 per cent of the senior citizens had no schooling and it was a great surprise to note that there was no elderly women were post graduates. For 88.01 per cent of the senior citizens, social security pension was the major source of income and among them, for 48.7 per cent social security pension was the only source of income. In rural areas of Kerala, 25.78 per cent of the senior citizens were financially independent. The financially independent elderly men came up to 18.75 per cent and the financially independent elderly women accounted to 7.03 per cent of the senior citizens.

The third objective of the present study was to analyse the determinants and outcomes of the productive engagement of the senior citizens in the rural areas of Kerala. In order to

achieve this objective, the approaches of Covariance-Based Confirmatory Factor Analysis (CB-CFA), Structural Equation Modelling (SEM) and chi-square difference test were applied for the moderation model “Productive Engagement in Later Life”, using the IBM SPSS AMOS Graphics 21 software package and MS Excel. Through the model Productive Engagement in Later Life, the study found out that there are significant differences between the working and the care-giving senior citizens in the effects of estimates of productive engagement on overall well-being. The overall well-being was better among the senior citizens who were working than the senior citizens, who were care-givers. In this section, the asset and well-being of the senior citizens was also discussed by conducting chi-square test. In the analysis of the existence of encouraging and discouraging factors for productive engagement among the senior citizens, the mean of encouraging and discouraging factors for productive engagement of the senior citizens were 5.7907 and 4.4193. Thus, among the senior citizens in the rural areas of Kerala encouraging factors for productive engagement are strongly existing than the discouraging factors for productive engagement. The study concluded by proving that the productive engagement of the senior citizens improved the well-being of the senior citizens, especially that of the working senior citizens. The study also states that the senior citizens should not be forced to work or to be productively engaged in their later life. They can only be encouraged to be economically independent and make productive contributions to their family and society and to make their life more contented and happier.

## സംഗ്രഹം

നിലവിൽ കേരളം അതിന്റെ പ്രായമായ ജനസംഖ്യയുടെ പേരിൽ ലോകത്തിന്റെ മുഴുവൻ ശ്രദ്ധ പിടിച്ചുപറ്റുന്നു. ഇന്ത്യയിലെ മറ്റേതൊരു സംസ്ഥാനത്തേക്കാളും വേഗത്തിലാണ് കേരളം നരച്ചുകൊണ്ടിരിക്കുന്നത്. വർദ്ധിച്ചുവരുന്ന വാർദ്ധക്യ ആശ്രിത അനുപാതം, സാമൂഹിക സുരക്ഷയ്ക്കുള്ള ഉയർന്ന ആവശ്യം എന്നിവയ്ക്കൊപ്പം മൊത്തം ജനസംഖ്യയിലേക്കുള്ള മുതിർന്ന പൗരന്മാരുടെ വർദ്ധിച്ചുവരുന്ന അനുപാതവും ആണ് ഈ പഠനത്തിന്റെ അടിസ്ഥാനം. കേരളത്തിലെ ഗ്രാമീണ മേഖലകളിലെ സാമ്പത്തിക സ്വാതന്ത്ര്യം, ഉൽപ്പാദനക്ഷമവും സംഭാവനാപരവുമായ ഇടപെടൽ തുടങ്ങിയ മുതിർന്ന പൗരന്മാരുടെ ബഹുമുഖ കാഴ്ചപ്പാടുകളും വെല്ലുവിളികളും വിശകലനം ചെയ്യാൻ ആണ് നിലവിലെ ഗവേഷണം നടത്തിയത്.

ഗാരി ബെക്കർ മുന്നോട്ടുവച്ച ഹ്യൂമൻ ക്യാപിറ്റൽ തിയറി പഠനത്തിന്റെ സൈദ്ധാന്തിക പശ്ചാത്തലമായി ഉപയോഗിക്കുന്നു. കൂടാതെ സാമ്പത്തിക സ്വാതന്ത്ര്യത്തിന്റെയും വാർദ്ധക്യത്തിലെ ഉൽപ്പാദനക്ഷമവും സംഭാവനാപരവുമായ ഇടപെടലിന്റെയും മാതൃക, പിൻക്കാല ജീവിതത്തിൽ ഉൽപ്പാദനക്ഷമവും സംഭാവനാപരവുമായ ഇടപെടലിന്റെ മാതൃക എന്നിവയാണ് പഠനത്തിൽ ഉപയോഗിച്ചിരിക്കുന്ന രണ്ട് മാതൃകകൾ. ഹ്യൂമൻ ക്യാപിറ്റൽ തിയറി അനുസരിച്ച്, വിദ്യാഭ്യാസം, പരിശീലനം, ആരോഗ്യ പരിപാലന സേവനങ്ങൾ എന്നിവ നൽകിക്കൊണ്ട് മാനുഷിക മൂലധനം വർദ്ധിപ്പിക്കാൻ കഴിയും. കേരളത്തിൽ ആയുർദൈർഘ്യം കൂടുതലായതിനാൽ, മുതിർന്ന പൗരന്മാരുടെ കഴിവുകളും നൈപുണ്യവും മാനുഷിക മൂലധനമാക്കി മാറ്റുന്നതിന് വിദ്യാഭ്യാസം, പരിശീലനം, ആരോഗ്യം എന്നിവയിൽ നിക്ഷേപം നടത്തേണ്ടത് അത്യാവശ്യമാണ്, കാരണം അവർ ഉൽപ്പാദനക്ഷമമായ ആസ്തിയാണ്, കൂടാതെ അവർക്കുമാത്രമല്ല വരുമാനം ലഭിക്കുന്നത്. കുടുംബത്തിനും സമൂഹത്തിനും വേണ്ടി ആണ്. സാമ്പത്തിക സ്വാതന്ത്ര്യത്തിന്റെയും വാർദ്ധക്യത്തിലെ ഉൽപ്പാദനക്ഷമവും സംഭാവനാപരവുമായ ഇടപെടലിന്റെയും മാതൃക കേരളത്തിലെ ഗ്രാമീണ മേഖലകളിലെ മുതിർന്ന പൗരന്മാരുടെ സാമ്പത്തിക സ്വാതന്ത്ര്യവും ഉൽപ്പാദനക്ഷമവും സംഭാവനാപരവുമായ പങ്കാളിത്തത്തിനുള്ള പ്രോത്സാഹനവും തമ്മിലുള്ള ബന്ധത്തിൽ വ്യക്തിപരമായ ഉത്തരവാദിത്തത്തിന്റെ മധ്യസ്ഥ പങ്ക് അന്വേഷിക്കുന്നു. വാർദ്ധക്യ ജീവിതത്തിൽ ഉൽപ്പാദനക്ഷമവും സംഭാവനാപരവുമായ ഇടപെടലിന്റെ മാതൃക രണ്ട് ഭാഗങ്ങൾ ഉൾക്കൊള്ളുന്നു: ബാധിക്കുന്ന ഘടകങ്ങളും അനന്തരഫലങ്ങളും. ബാധിക്കുന്ന ഘടകങ്ങളിൽ മൂന്ന് തരം ഘടകങ്ങൾ ഉൾപ്പെടുന്നു-സാമൂഹിക ഘടകങ്ങൾ, സാമ്പത്തിക ഘടകങ്ങൾ, പൊതു നയവും പരിപാടികളും. ഈ നിർണ്ണായക ഘടകങ്ങൾ ജോലി ചെയ്യുന്നതും പരിചരണം നൽകുന്നതുമായ മുതിർന്ന പൗരന്മാരുടെ ഉൽപ്പാദന സ്വഭാവത്തെ സ്വാധീനിക്കുന്നു. ജോലി ചെയ്യുന്നതും പരിചരണം നൽകുന്നതുമായ പ്രവർത്തനങ്ങൾ ഒരു മധ്യസ്ഥ ഫലമായാണ് കാണുന്നത്. ആത്യന്തികമായി, ജോലിയുടെയും പരിചരണത്തിന്റെയും പ്രവർത്തനങ്ങൾ വ്യക്തിഗത ക്ഷേമത്തിലും കുടുംബ ക്ഷേമത്തിലും സാമൂഹിക ക്ഷേമത്തിലും വിവിധ തലത്തിലുള്ള സ്വാധീനം ചെലുത്തുന്നു.

സാമ്പത്തിക പ്രവർത്തനങ്ങളിൽ മുതിർന്ന പൗരന്മാരുടെ പങ്കാളിത്തം പഠിക്കുക എന്നതായിരുന്നു പഠനത്തിന്റെ ആദ്യ ലക്ഷ്യം. സാമ്പത്തിക പ്രവർത്തനങ്ങളിൽ മുതിർന്ന പൗരന്മാരുടെ പങ്കാളിത്തം മുതിർന്ന പ്രധാന തൊഴിലാളികൾക്കും പ്രായമായ നാമമാത്ര തൊഴിലാളികൾക്കും പ്രത്യേകം വിശകലനം ചെയ്തു. 1991, 2001, 2011 മുതലായ വർഷങ്ങളിലെ സെൻസസ് വിവരങ്ങളെ അടിസ്ഥാനമാക്കിയുള്ള വിശകലനത്തിൽ, നഗരപ്രദേശങ്ങളിലെ മുതിർന്ന പൗരന്മാരേക്കാൾ ഗ്രാമീണ മേഖലയിലെ മുതിർന്ന പൗരന്മാർ കൂടുതൽ ദുർബലരാണെന്നും ഗ്രാമീണ മേഖലയിലെ മുതിർന്ന പൗരന്മാരുടെ പങ്കാളിത്തം നഗരപ്രദേശങ്ങളിലെ മുതിർന്ന പൗരന്മാരേക്കാൾ കുറവുവെന്നും കണ്ടെത്തി. 1991-ൽ, 23.71 ശതമാനം മുതിർന്ന പൗരന്മാർ സാമ്പത്തിക പ്രവർത്തനങ്ങളിൽ ഏർപ്പെട്ടിരുന്നു, 2001-ൽ അത് 17.36 ശതമാനമായി കുത്തനെ ഇടിഞ്ഞു. 2011-ൽ അവരുടെ പങ്കാളിത്തം വീണ്ടും 18.5 ശതമാനമായി വർദ്ധിച്ചു. 1991 ലെ സെൻസസ് വർഷത്തിൽ മുതിർന്ന ജനസംഖ്യയിലെ നാമമാത്ര തൊഴിലാളികൾ 3.12 ശതമാനമായിരുന്നു, 2001 ലെ സെൻസസ് വർഷത്തിൽ ഇത് 5.23 ശതമാനമായി വർദ്ധിച്ചു. 2011 ൽ, പ്രായമായ ജനസംഖ്യയുടെ 5.89 ശതമാനം നാമമാത്ര തൊഴിലാളികളായിരുന്നു. പ്രായമായ ജോലി ചെയ്യുന്ന ജനസംഖ്യാ അനുപാതത്തിലെ വളർച്ചയും പ്രായമായ ജനസംഖ്യാ അനുപാതത്തിലെ വളർച്ചയും തമ്മിലുള്ള പരസ്പരബന്ധം -0.5449 ആയിരുന്നു, അതിനർത്ഥം പ്രായമായ തൊഴിലാളികളുടെ ജനസംഖ്യാ അനുപാതവും പ്രായമായ ജനസംഖ്യാ അനുപാതവും തമ്മിൽ മിതമായ വിപരീത ബന്ധമാണുള്ളത്. നിലവിലെ പഠനം ഗ്രാമീണ മേഖലയിലെ മുതിർന്ന പൗരന്മാരെ കേന്ദ്രീകരിക്കുന്നു. പ്രത്യേകിച്ച് 60-69 വയസ്സിനിടയിലുള്ള മുതിർന്ന പൗരന്മാർ. 70-79 വയസ്സിനിടയിലുള്ള മുതിർന്ന പൗരന്മാരേക്കാളും 80 വയസ്സും അതിനുമുകളിലുള്ള മുതിർന്ന പൗരന്മാരേക്കാളും ആരോഗ്യകരവും കൂടുതൽ സജീവവുമായി 60-69 വയസ്സിനിടയിലുള്ള മുതിർന്ന പൗരന്മാരെ കണക്കാക്കപ്പെടുന്നു.

മുതിർന്ന പൗരന്മാരെ ഉൽപ്പാദനക്ഷമവും സംഭാവനാപരവുമായ പ്രവർത്തനങ്ങളിൽ ഏർപ്പെടാൻ പ്രോത്സാഹിപ്പിക്കുന്ന സാമ്പത്തിക സ്വാതന്ത്ര്യത്തിന്റെ ഘടകങ്ങൾ തിരിച്ചറിയുക എന്നതായിരുന്നു പഠനത്തിന്റെ രണ്ടാമത്തെ ലക്ഷ്യം. "സാമ്പത്തിക സ്വാതന്ത്ര്യവും വാർദ്ധക്യത്തിലെ ഉൽപ്പാദനക്ഷമവും സംഭാവനാപരവുമായ ഇടപെടലും" എന്ന മധ്യസ്ഥ മാതൃകയുടെ വികസനത്തിനായി ഐ.ബി.എം. എസ്.പി.എസ്.എസ് ആമോസ് ഗ്രാഫിക്സ് 21 സോഫ്റ്റ്‌വെയർ പാക്കേജ് ഉപയോഗിച്ചു, കൂടാതെ മോഡലിന്റെ മധ്യസ്ഥതയുടെ പ്രാധാന്യം വിലയിരുത്തുന്നതിനായി ബൂട്ട്സ്‌ട്രാപ്പിംഗ് രീതിയും ഉപയോഗിച്ചു. "വാർദ്ധക്യത്തിലെ സാമ്പത്തിക സ്വാതന്ത്ര്യവും ഉൽപ്പാദനക്ഷമവും സംഭാവനാപരവുമായ ഇടപെടലും" എന്ന മാതൃക, കേരളത്തിലെ ഗ്രാമപ്രദേശങ്ങളിലെ മുതിർന്ന പൗരന്മാർ ഉൽപ്പാദനപരമായ പ്രവർത്തനങ്ങളിൽ അല്ലെങ്കിൽ സംഭാവനാപരവുമായ പ്രവർത്തനങ്ങളിൽ ഏർപ്പെടാനോ ഉള്ള സ്വന്തം മുൻഗണന കാരണം ഉൽപ്പാദനക്ഷമവും സംഭാവനാപരവുമായ പ്രവർത്തനങ്ങളിൽ ഏർപ്പെട്ടിരിക്കുകയാണെന്ന് നിഗമനം ചെയ്തു. നിർബന്ധം കൊണ്ടോ ബാധ്യത കൊണ്ടോ അല്ല മുതിർന്ന പൗരന്മാർ ഉൽപ്പാദനക്ഷമവും സംഭാവനാപരവുമായ പ്രവർത്തനങ്ങളിൽ ഏർപ്പെട്ടിരിക്കുന്നത്. അതിനാൽ, മുതിർന്ന പൗരന്മാരെ സാമ്പത്തിക സ്വാതന്ത്ര്യം നേടുന്നതിന് സഹായിക്കുന്നതിനുള്ള നടപടികൾ സർക്കാർ ആരംഭിക്കണം, അത് സാമ്പത്തിക അറിവ് നൽകുന്നതിലൂടെയും സാമ്പത്തിക സാമൂഹികവൽക്കരണത്തിന്റെ



ഉറവിടങ്ങൾ വിശാലമാക്കുന്നതിലൂടെയും സാമ്പത്തിക സ്ഥാപനങ്ങളിലേക്ക് സ്വതന്ത്രമായ പ്രവേശനം സുഗമമാക്കുന്നതിലൂടെയും അവരുടെ തീരുമാനങ്ങൾ എടുക്കുന്നതിനുള്ള കഴിവുകൾ പ്രോത്സാഹിപ്പിക്കുന്നതിലൂടെയും കൈവരിക്കാനാകും. സാമ്പത്തിക സ്ഥാപനങ്ങളിലേക്കുള്ള സ്വതന്ത്രമായ പ്രവേശനം, സാമ്പത്തിക അറിവ്, സാമ്പത്തിക സാമൂഹികവൽക്കരണത്തിന്റെ ഉറവിടങ്ങൾ, അവരുടെ തീരുമാനങ്ങൾ എടുക്കുന്നതിനുള്ള കഴിവുകൾ പോലെയുള്ള സാമ്പത്തിക സ്വാതന്ത്ര്യത്തിന്റെ നാല് നിർമ്മിതികൾ വൺ-സാമ്പിൾ ടി ടെസ്റ്റ്, ഇൻഡിപൻ്റ് ടി-ടെസ്റ്റ്, വൺ-വേ അനോവ എന്നിവ ഉപയോഗിച്ച് വിശകലനം ചെയ്തു.

കേരളത്തിലെ ഗ്രാമപ്രദേശങ്ങളിലെ മുതിർന്ന പൗരന്മാരുടെ സാമൂഹിക-സാമ്പത്തിക നിലയും വിശകലനം ചെയ്ത പഠനത്തിൽ 19.53 ശതമാനം മുതിർന്ന പൗരന്മാർക്ക് സ്കൂൾ വിദ്യാഭ്യാസം ഇല്ലെന്നും പ്രായമായ സ്ത്രീകളാരും ബിരുദാനന്തര ബിരുദം നേടിയവരല്ലെന്നും കണ്ടെത്തി. 88.01 ശതമാനം മുതിർന്ന പൗരന്മാർക്കും സാമൂഹിക സുരക്ഷാ പെൻഷനായിരുന്നു പ്രധാന വരുമാനമാർഗ്ഗം. കേരളത്തിലെ ഗ്രാമപ്രദേശങ്ങളിൽ 25.78 ശതമാനം മുതിർന്ന പൗരന്മാർ സാമ്പത്തികമായി സ്വതന്ത്രരായിരുന്നു. സാമ്പത്തികമായി സ്വതന്ത്രരായ പ്രായമായ പുരുഷന്മാർ 18.75 ശതമാനവും സാമ്പത്തികമായി സ്വതന്ത്രരായ പ്രായമായ സ്ത്രീകളുടെ എണ്ണം 7.03 ശതമാനവുമാണ്.

കേരളത്തിലെ ഗ്രാമപ്രദേശങ്ങളിലെ മുതിർന്ന പൗരന്മാരുടെ ഉൽപ്പാദനപരമായ ഇടപെടലിന്റെ നിർണ്ണായക ഘടകങ്ങളും ഫലങ്ങളും വിശകലനം ചെയ്യുക എന്നതായിരുന്നു ഇപ്പോഴത്തെ പഠനത്തിന്റെ മൂന്നാമത്തെ ലക്ഷ്യം. ഈ ലക്ഷ്യം കൈവരിക്കുന്നതിനായി, ഐ.ബി.എം. എസ്.പി.എസ്.എസ് ആമോസ് ഗ്രാഫിക്സ് 21 സോഫ്റ്റ്‌വെയർ പാക്കേജ്, എം.എസ് എക്സൽ എന്നിവയുടെ സഹായത്തോടെ കോവേരിയൻസ്-ബേസ്ഡ് കൺഫർമേറ്ററി ഫാക്ടർ അനാലിസിസ് (സി.ബി-സി.എഫ്.എ), സ്ക്രൂറൽ ഇക്വേഷൻ മോഡലിംഗ് (സെം), കൈ - സ്കയർ ഡിഫറൻസ് ടെസ്റ്റ് എന്നിവയുടെ സമീപനങ്ങൾ മോഡറേഷൻ മാതൃക ആയ "വാർദ്ധക്യ ജീവിതത്തിൽ ഉൽപ്പാദനക്ഷമവും സംഭാവനാപരവുമായ ഇടപെടലിന്റെ മാതൃകയിൽ" പ്രയോഗിച്ചു. വാർദ്ധക്യ ജീവിതത്തിൽ ഉൽപ്പാദനക്ഷമവും സംഭാവനാപരവുമായ ഇടപെടലിന്റെ മാതൃകയിലൂടെ, മൊത്തത്തിലുള്ള ക്ഷേമത്തിൽ ഉൽപ്പാദനക്ഷമവും സംഭാവനാപരവുമായ ഇടപെടൽ കണക്കാക്കുന്നതിന്റെ ഫലങ്ങളിൽ ജോലി ചെയ്യുന്നവരും പരിചരണം നൽകുന്ന മുതിർന്ന പൗരന്മാരും തമ്മിൽ കാര്യമായ വ്യത്യാസങ്ങളുണ്ടെന്ന് പഠനം കണ്ടെത്തി. പരിചരണം നൽകുന്ന മുതിർന്ന പൗരന്മാരേക്കാൾ ജോലി ചെയ്യുന്ന മുതിർന്ന പൗരന്മാർക്കിടയിൽ മൊത്തത്തിലുള്ള ക്ഷേമം മികച്ചതായിരുന്നു. ഈ വിഭാഗത്തിൽ, കൈ-സ്കയർ ടെസ്റ്റ് നടത്തി മുതിർന്ന പൗരന്മാരുടെ ആസ്തിയും ക്ഷേമവും ചർച്ച ചെയ്തു. മുതിർന്ന പൗരന്മാർക്കിടയിൽ ഉൽപ്പാദനക്ഷമവും സംഭാവനാപരവുമായ ഇടപെടലിന് പ്രോത്സാഹനവും നിരുത്സാഹപ്പെടുത്തുന്നതുമായ ഘടകങ്ങളുടെ നിലനിൽപ്പിന്റെ വിശകലനത്തിൽ, മുതിർന്ന പൗരന്മാരുടെ ഉൽപ്പാദനപരമായ ഇടപെടലിന് പ്രോത്സാഹനവും നിരുത്സാഹപ്പെടുത്തുന്ന ഘടകങ്ങളും 5.7907 ഉം 4.4193 ഉം ആയിരുന്നു. അങ്ങനെ, കേരളത്തിലെ ഗ്രാമപ്രദേശങ്ങളിലെ മുതിർന്ന പൗരന്മാർക്കിടയിൽ ഉൽപ്പാദനക്ഷമവും സംഭാവനാപരവുമായ ഇടപെടൽ നിരുത്സാഹപ്പെടുത്തുന്ന ഘടകങ്ങളേക്കാൾ ശക്തമായി നിലനിൽക്കുന്നുണ്ട്. മുതിർന്ന പൗരന്മാരുടെ ഉൽപ്പാദനപരമായ

ഇടപെടൽ മുതിർന്ന പൗരന്മാരുടെ, പ്രത്യേകിച്ച് ജോലി ചെയ്യുന്ന മുതിർന്ന പൗരന്മാരുടെ ക്ഷേമം മെച്ചപ്പെടുത്തുന്നുവെന്ന് തെളിയിച്ചുകൊണ്ട് പഠനം അവസാനിച്ചു. മുതിർന്ന പൗരന്മാരെ അവരുടെ പിന്നീടുള്ള ജീവിതത്തിൽ ജോലി ചെയ്യാനോ ഉൽപ്പാദനക്ഷമവും സംഭാവനാപരവുമായ രീതിയിൽ ഏർപ്പെടാനോ നിർബന്ധിക്കരുതെന്നും പഠനം പറയുന്നു. സാമ്പത്തികമായി സ്വതന്ത്രരാകാനും അവരുടെ കുടുംബത്തിനും സമൂഹത്തിനും ഉൽപ്പാദനക്ഷമവും സംഭാവനാപരവുമായ സംഭാവനകൾ നൽകാനും അവരുടെ ജീവിതം കൂടുതൽ സംതൃപ്തവും സന്തോഷകരവുമാക്കുവാനും അവരെ പ്രോത്സാഹിപ്പിക്കുവാനും മാത്രമേ പൊതു സമൂഹത്തിന് കഴിയൂ.

# **Chapter 1**

## **Introduction**

## **1.1 Introduction**

The state of Kerala is the cynosure of the world due to its achievements in human development, education, health, and life expectancy. Currently Kerala grabs the attention of the whole world on behalf of its greying population. Kerala is greying faster than any other state in India. Demographic transition is the major contributing factor for it. Kerala is in the last stage of demographic transition (a stage of low fertility and morbidity). The major transition of this stage is zero or negative population growth. It is true that the negative population growth is an outcome of the successful social development experienced in Kerala. Ageing population is always a challenge for any economy and particularly so to the economy of Kerala. The increased life expectancy and zero or negative growth rate of child population are likely to pose financial crisis as well. Thus, the increasing share of the senior citizens to the total population along with the ever-increasing old age dependency ratio and the high demand for social security form the focus of the present study. The current research work makes an enquiry to investigate the multi-faceted perspectives and challenges of the senior citizens such as the economic independence and the productive engagement in the rural areas of Kerala.

## **1.2 Background of the Study**

Kerala's rate of population growth has always been higher than that of India as a whole. The population in the state of Kerala had been rising consistently from one census period to another at rates faster than those experienced by the country as a whole from the period 1901 to 1971. Only during the period from 1971- 1981 the population of Kerala explicated a lower rate of growth than that experienced in the country as a whole. The principal reason for the higher rate of population growth, particularly between 1941 to 1971, was predominantly due to a substantial drop in the mortality rate without a corresponding decline in the fertility rate. While the death rate declined from 29.1 per thousand during the period 1931-1940 to 9 per thousand in 1970-1971, the birth rate in the state of Kerala declined from 40 per thousand to about 31 per thousand during the same period (Rajan, 1989).

A notable shift in the aged population in Kerala was taking place from the year 1981 onwards. Up to the year 1981, the proportion of the senior citizens to the total population of Kerala was below national average. Since the year 1981, Kerala surpassed all other states and even the national average. When the proportion of the senior citizens to the total population was 10.5 per cent during the year 2001, the all-India average was only 7.5 per cent (Abdul Azeez, 2022). As per the census of 2011, the proportion of the senior citizens to total population was 12.6 per cent and expected to rise to the maximum of 20.9 per cent in the year

2031. As per the Report of the Economic Review of Kerala 2021, Kerala will be in the forefront among the states in India on account of the aged population in the near future.

With this backdrop, the statistical data regarding the population of the senior citizens under various constructs were analysed. The way to convert skill and experience of the senior citizens into productive activity in their later years was not well analysed in the earlier studies. Thus, a scientific study of these issues is inevitable for a proper policy formulation to make the senior citizens productive and economically independent to live a meaningful and successful life.

### **1.3 Significance of the Study**

The state of Kerala is unique for its demographic profile characterised by a high proportion of senior population along with lower proportion of child population. The implications of the growing elderly population in the economy of Kerala are significant and embrace various aspects of personal, familial, social, and economic well-being. After the age of sixty, their withdrawal from economic activities gradually affects the potential labor force of the economy of Kerala. It also impacts the social security system, health care system, and the consumption spending pattern of the society. Thus, according to the increasing needs of the senior citizens, both the governmental and non-governmental organisations must expand their services which support the senior citizens in the form of socialisation, acquiring knowledge and access to economic services and institutions. These services are essential to ensure the well-being of the senior citizens. Along with this, the interactions with the young generation should be promoted because it has a significant benefit on the social and psychological well-being of the senior citizens.

To be more precise, the aged population in the State of Kerala presents both opportunities and challenges. While the senior citizens contribute their knowledge, skill, and experience to the economy, addressing their specific needs and ensuring their well-being requires a comprehensive approach involving health and social expenditure, economic policies, independence and productive engagement. Proactive planning and policy development are essential to effectively manage the implications of greying population of Kerala. While ageing is inevitable, the concept of productive ageing accentuates the prominence for maintaining economic independence and well-being among the senior citizens in the rural areas of Kerala.

Hence, the study of economic independence and productive engagement of the senior citizens in rural areas of Kerala is significant because in a State like Kerala, understanding how senior citizens in the rural areas can achieve economic independence and remain productive

can help to ensure both their financial sustainability and well-being without overburdening their family and social security systems. It can reduce the strain on social welfare programmes, by allowing the government to allocate resources to more effectively to address other surging issues. The productive engagement of the senior citizens in rural areas can contribute to the overall development of the region and help them to preserve the customs and traditional values, which may be at risk of being lost with younger generations migrating to urban areas. The senior citizens who are still active in productive activities tend to have a better physical and psychological well-being.

Thus, the research into the economic independence and productive engagement of the senior citizens can inform policy makers about the specific needs and challenges faced by senior citizens in rural areas. This, in turn, can lead to the development of targeted policies and programmes. The study in this area can provide valuable data and insights that can guide local governments, non-governmental organisations, and community organisations in planning and implementing initiatives to support senior citizens in rural areas effectively. Thus, the present study is crucial for addressing the unique challenges and opportunities faced by the senior population in rural areas of Kerala. It can lead to the development of policies and initiatives that promote their well-being, support local government, and preserve important aspects of rural culture and economy.

#### **1.4 Research Gap**

The focus of the present research work is on how the well-being of the senior citizens could be improved by enhancing their economic independence. The study reviewed the previous studies concentrating on the economic involvement, the economic independence and the productive engagement of the senior citizens in the rural areas of Kerala. The current research work departs from the existing works as it studies the three aspects of successful ageing namely their economic independence, the determinants of productive participation, its outcomes and how these aspects lead to a contented life at the old age. In brief, the present study fills the research gap found in the existing studies, by focusing the research on the determinants of the productive participation and its outcomes on the senior citizens as individuals, their family, and the social well-being.

## 1.5 Statement of the Problem

India has an age-old bequest of respecting the senior citizens, and their incisive ideas and suggestions are sought after with great devotion in matters of domestic and social importance. The studies reviewed so far from the year 1990 onwards, portray that a changeover has taken place in the status of the senior citizens in India and especially in Kerala. However, the joint family system that existed in the society of Kerala provided magnanimous support to the senior citizens, and it was customary to touch the feet of the senior citizens by the younger generations before any momentous occasions in their life. Nevertheless, the structural changes that have taken place in the hi-tech and modern-day society of the state of Kerala especially in rural areas, owing to urbanisation, innovation, structural transformation and the like have replaced the 'assigned status' of the senior citizens with the 'attained status'. Nowadays, several challenges associated with ageing make the lives of the senior population more vulnerable, and among such challenges, the changing joint family system has more corollaries for the present deprived status of the senior citizens in rural areas (Kumar, 1999). In the present scenario of Kerala, the growth in the population of the senior citizens without a subsequent increase in the child and working population will pose a challenge to the economy of Kerala. Senior citizens in rural areas face acute social and financial problems and are tagged as an unproductive and vulnerable group in society. This would lead to an augmented demand for social security and health expenditures. Nonetheless, a significant portion of the senior citizens in rural areas, without considering their age and frailty, engage in economic activities and strive hard to make their lives economically independent. It is true that there are some senior citizens who earn income through employment and self-employment, even in rural areas where the opportunities for earning an income are comparatively less. While few of the senior citizens enjoy their autumn years, the rest remain inactive without their discretion. Thus, the senior citizens in the rural areas of Kerala experience both challenges and possibilities in the evening of their lives and also urge for the enlarged involvement of the young-old senior citizens (between the age group of 60-69) because they are more active, healthy, and productive than their counterparts who are above 70 years. These problems require a scientific enquiry and an in- depth analysis. The research questions raised for the study are the following;

1. What is the involvement of the senior citizens in the economic activities in the rural areas of Kerala? Why is it that the senior citizens should be productively engaged?

2. Will providing knowledge, training, and access to services and institutions and making them economically independent encourage senior citizens to engage in productive activities? Are they responsible for engaging in productive activities in their later lives?
3. What are the benefits for the senior citizens engaging in paid employment compared to any other kind of productive activity?

The first research question analysed the magnitude of the involvement of the senior citizens in the rural areas in various economic activities. This analysis enabled to find out whether the involvement of the senior citizens increased or declined along with the increase in their population. If their involvement is increasing, it is a positive sign, and they would no longer be a concern for the state. If their involvement is declining over the year, then it would negatively harm the working population and, consequently, the economy too. Then, the productive engagement of senior citizens will become an inevitable variable. Thus, finding the correlation between the proportion of the elderly population and the elderly working population helps to comprehend the trend of the involvement of the senior citizens in an absolute sense.

By investigating the second research question, it is envisioned to have a discovery of the factors that influence the productive engagement of the senior citizens. In addition to this, it also tries to find out how much they are economically independent. The existence of economic independence among the senior citizens has far-reaching implications for individuals and society. The second research question helps to expose how the economic independence of the senior citizens encourages productive participation by fitting in the Structural Equal Model (SEM). In addition to this, the existence of the constructs of economic independence was tested by applying a one-sample t-test, based on the individual characteristics and the constructs of economic independence were analysed by using an independent t-test and a one-way ANOVA.

The third research question answers all the queries on the productive engagement of the senior citizens, and it also gives an idea of the changes outlined in their lives after turning 60. What is extra here is; how does society help the senior citizens remain independent and active as they get aged? The underlying observations of the third research question, explained by applying SEM, help to identify the fact that, engaging in paid employment will have a multi-level effect on the well-being of the senior citizens as well as the society than engaging in any other productive activities. As an addition to the analysis of the well-being of the senior citizens, a chi-square test was conducted to compare the assets and well-being of the working and care-giving senior citizens.

In the light of the above research questions, the following objectives are pursued in the present study.



## **1.6 Objectives of the study**

- To study the involvement of the senior citizens in the economic activities in the rural areas of Kerala
- To sketch the aspects of economic independence leading to productive engagement of the senior citizens
- To analyse the determinants and outcomes of the productive engagement of the senior citizens in the rural areas of Kerala

## **1.7 Hypotheses of the Study**

### **1.7.1 Hypothesis 1:**

There exists significant correlation between the proportion of the elderly working population and elderly population proportion.

### **1.7.2 Hypothesis 2:**

Personal responsibility of the senior citizens has a mediating role between the economic independence and encouraging factors for productive engagement

### **1.7.3 Hypothesis 3:**

There exist significant differences between the elderly workers and care-givers in determining factors and outcomes of productive engagement

## **1.8 Theoretical Background**

People of different ages portray various levels of active participation in social and economic activities, and it was discovered from various studies that senior citizens manifested lower levels of involvement. Seniors with lower levels of education, skills, and socio-economic advantage tend to be inactive and unemployed (Ken Mathew, 2004). The existing state of deprivation must be improved by offering education and training in order to have a shift in society's perception of senior citizens and for senior folks to be considered productive resources. According to Gary Becker's Human Capital Theory, every individual possesses a distinctive set of talents and abilities that may be developed and added to through education and training. "Human capital is the stock of skills and productive knowledge embodied in people. The yield or return on human capital investments lies in enhancing a person's skills and earning power, and in increasing the efficiency of economic decision-making both within and without the market economy" (Rosen, 1989).

For common individuals, "capital" refers to a bank account, shares of stock, and assets like houses, vehicles, machinery, and manufacturing plants. These are all assets that provide income and other valuable outputs over an extended period of time; thus, they are all capital in

that sense. Capital expenditures include things like education, computer classes, medical costs, and lectures on the value of promptness and honesty. These are seen as capital because they boost a person's lifetime of good deeds, improve their health, or raise their income. Analysts therefore interpret human capital investments as being undertaken in sectors like education, training, health care, and so forth. People are referred to as human capital because they cannot be separated from their knowledge, skills, health, or beliefs in the same way that they cannot be removed from their financial and physical assets. Education and training costs are the biggest investments in human capital (Becker, 1975).

According to the commonly accepted value of human capital theory, individuals must believe in their skill, knowledge, and ability as the fundamental principles of value creation in order to boost their performance. According to Becker, human capital can be accumulated through migration, education, training, and health. Investment in human capital is crucial since it is the asset that generates income for both the individual and the economy (Wuttaphan, 2017). There are two ways that work functions in everyone's life. It has two effects: it influences future productivity and current income. According to the concept, investment declines with age. Additionally, it enables the amount of investment in future output to be based on how much the ability to continue learning new abilities improves or detracts from previously gained talents (Welch, 1975).

As per Becker's Human Capital Theory, there is a positive correlation between income and education. The theory also outlines the mechanism by which education improves skills, which in turn boosts production and leads to higher earnings as a result of increased productivity (Seong-O Bae, 2014). Increased life expectancy, better health, and improved functioning into later years for senior citizens are all results of the development of the health sector, which is a component of human capital. People of all ages benefitted from the increase in health capital in terms of productivity and overall well-being (Kenneth G. Manton, 2009).

### **1.8.1 Theoretical Models Used in the Study**

In the present study, two models were used. They are Model of Economic Independence and Productive Engagement at Old Age and Productive Engagement in Later Life Model.

### **1.8.1.1 Model of Economic Independence and Productive Engagement at Old Age**

The two theoretical paradigms shape this model were Identity Capital Theory of Financial Independence (Sarah Martin Butterbaugh, 2020) and A Model of Prerequisites for Employment at Older Ages by (Radović-Marković, 2013). The Identity Capital Model of Financial Independence is used as the model as well as the theoretical background to the discussion of economic independence. The model of Prerequisites for Employment at Older Age is a model of encouraging attitude towards employment, elimination of discrimination against older workers and set the precondition to its implementation. Together, these two theories provide an explanation to how economic independence and productive engagement are related.

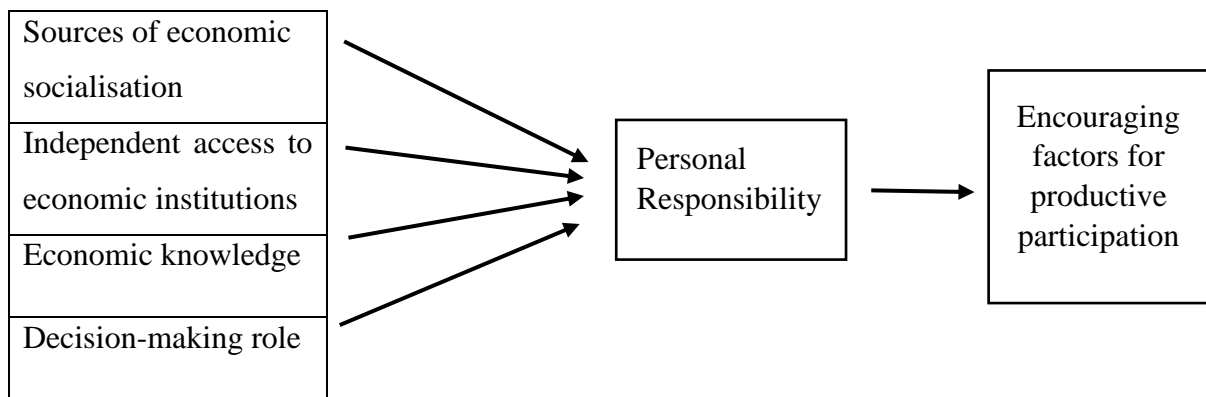
#### **Model Framework**

It is wrong to think of economic independence as complete opposite of economic interdependence. It does not imply lessening reliance, negotiations, or cooperation. Economic independence is not defined in a way that is universally recognised and accepted. Many academics and interest groups have different ideas about what it is. As a result, there is dispute among academics over what it requires and how to get there (Al-Rahmani, 1988). The present study defines economic independence as “expanding the capacity of an individual to make genuine choices in all spheres of life. It can be better achieved by imparting economic knowledge, providing access to economic institutions, widening sources of economic socialisation and enlarging decision making role”. An individual needs to be economically independent because it gives them a sense of satisfaction. If individuals have more control over the actions, forces, and institutions that have an impact on their lives, they feel more content and confident (Al-Rahmani, 1988). The Model of Prerequisites for Employment at Older Ages emphasises the advantages of hiring seniors, both personally and in terms of society as a whole. It discusses how encouraging competition among senior citizens might help a society thrive. They are all interconnected and work together to provide everyone with equitable employment possibilities (Radović-Marković, 2013). Social scientists can examine how people might strategically manage the many aspects of their subjective, interpersonal, and social lives from the perspective of the Identity Capital Model (ICM), which offers this perspective (Côté, 2016). Here, arises the role for personal responsibility of the individual. Developing, organising, and executing personal responsibilities is crucial because it helps an individual to manage their active life strategically at all their age. Accomplishment of personal responsibility

enables an individual be the guardian of their own choice and professed identity. Thus, the proposed model (Figure 1.1) developed by combining Identity Capital Theory of Financial Independence (Sarah Martin Butterbaugh, 2020) and A Model of Prerequisites for Employment at Older Ages by (Radović-Marković, 2013) investigate the mediating role of personal responsibility in the relationship between economic independence and encouragement in productive participation of senior citizens in the rural areas of Kerala.

**Figure 1.1**

**Model of Economic Independence and Productive Engagement at Old Age**



Many senior citizens are currently engaging in productive activities, including working and providing care. A sustainable proportion of senior adults engage in not only one type of activity but participation in multiple productive roles. Additionally, senior citizens who are still employed represent a variety of occupations. It suggests that there are numerous facilitators and impediments to senior citizens engaging in productive activities, including employment, care-giving, and volunteering. Further investigation is necessary to identify motivating factors delineating older adult ability versus desire to engage in various types of productive roles, including employment, care-giving, or a combination of the three. It takes creative approaches to find ways to encourage senior citizens to engage in productive activities, from individual interventions to safeguarding and improving employment, educational, and community policies and programmes. Such productive ageing solutions and efforts should take into account heterogeneity in socio-demographic, health, and environmental aspects to be inclusive of all groups of the senior citizens, given the diversity in the senior citizen community (Ward, 2020).

## **Model Development**

To ensure active and successful ageing, India needs a strong social security system that handles fundamental ageing issues such as adequate living arrangements, economic independence, and social security. Among these, economic independence is the most important sign of senior citizens' well-being (Srinivas Goli, 2019). Seniors who are independent enjoy a higher quality of life compared to those who are dependent or less independent. Due to their declining income as they get older, citizens after the age of 60 become more and more dependent on others for their financial needs (Sumara Naz, 2014). Senior citizens are less likely to participate in activities due to a variety of situational considerations, such as their health, access to transportation and communications, their financial status, the worker's willingness, and their own competence, training, and credentials (E. Michael Brady, 2016). These barriers can be removed through imparting training and knowledge, providing easier access to economic institutions, services, and facilities, increasing the role of others, and minimising dependency on others. All these together constitute economic independence, and by making senior citizens economically independent, they were encouraged to participate productively themselves. Here, the willingness of senior citizens to engage in productive activities is also an essential factor. Even though senior citizens are economically independent, they are not all encouraged to participate productively. On the other side, unless senior citizens were not economically independent, a few of them were engaged in productive activities because of their responsibilities. Thus, the proposed model of the study investigates the role of personal responsibility in the productive participation of senior citizens.

### **1.8.1.2 Productive Engagement in Later Life Model**

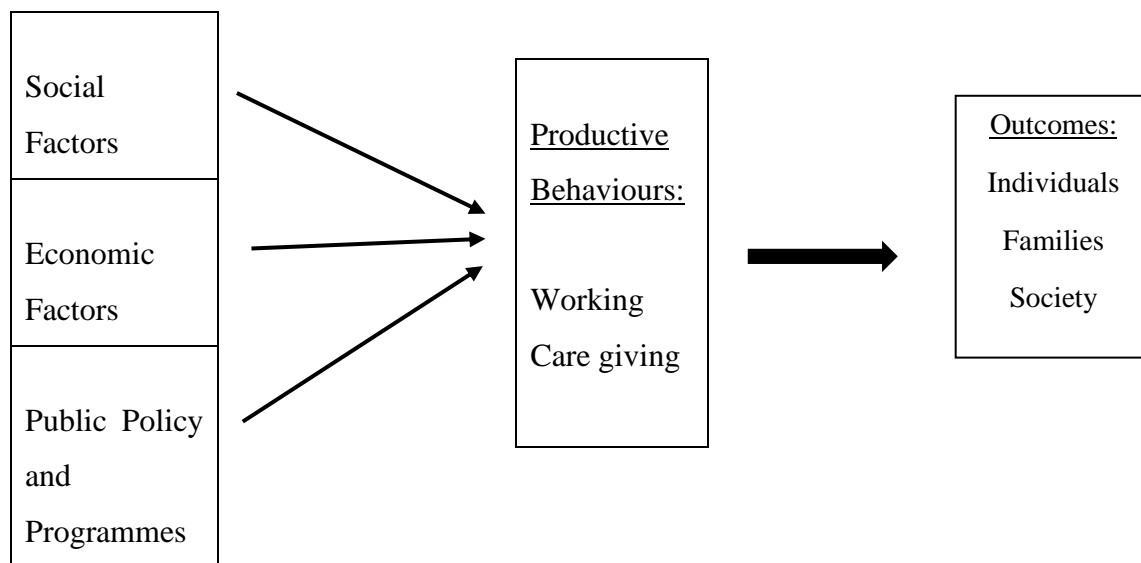
There are a lot of problems to confront while preparing strategic guidelines for uplifting senior citizens in rural areas. Diversity in the socio-economic components of their lives is the dilemma in preparing such programmes or policies. The "Productive Engagement in Later Life Model", is used to illustrate such factors and their effects. The "Productive Engagement in Later Life Model" is an adapted version of "Productive Engagement in Later Life: A Cross Cultural Framework" by Nancy Morrow Howell and Yi Wang, developed in 2012. They developed the model based on the World Health Organisation's (WHO) Active Ageing Framework (2002) and the "Productivity in Later Life Model Proposed by Sherraden in 2001. This framework consists of two parts: antecedents and outcomes. The antecedents include three types of determinants: social factors, economic factors, and public policies and programmes. These determinants influence the productive behaviours of working and care-giving. Working

and care-giving activities are viewed as intermediate outcomes. Ultimately, working and care-giving have a multi-level effect on individual well-being, family well-being, and social well-being (Nancy Morrow-Howell, 2012).

The human capital of senior persons can be utilised through employment, volunteerism, and care-giving for the benefit of families, communities, and society. Senior citizens themselves may benefit from this active, deliberate engagement. The current study suggests an adapted version of an existing conceptual framework called "Productive Engagement in Later Life: A Cross-Cultural Framework" that explains the causes and effects of productive engagement. This strategy provides a more thorough understanding of the feedback loops that exist between individuals, their families, and the community, as well as the effects of possible programme and policy changes aimed at boosting the productive involvement of senior citizens (C. Halvorsen, 2017).

**Figure 1.2**

**Productive Engagement in Later Life Model**



Source: Adapted version of Cross-cultural framework on productive engagement in later life

This framework consists of two portions:

- Antecedents
- Outcomes

In this context, antecedents refer to factors that influence seniors' productive behaviour. In a simple sense, antecedents are the prompting elements for their discretion in work and care-giving. There are three sorts of antecedents:

1. Social Factors
2. Economic factors
3. Public Policy and Programmes

Marital status, level of education, health, age, gender, social support, pensions, etc. were referred to as social factors, and income, wealth, employment, etc. were regarded as economic factors. Their productive engagement behaviour is also influenced by the government's welfare programmes. These factors have an impact on senior citizens' productive behaviour. The activities in which senior citizens were involved is indicated by their productive behaviours. The topic of how senior citizens maintain and alter their involvement in various activities has received more attention as a result of the increased life expectancy. Seniors engage in a variety of productive endeavours in their later years, including employment and care-giving (Hinterlong, 2021).

The activities of senior citizens in Kerala's rural areas were divided into two categories. They were:

1. Working
2. Care-giving

### **Working**

According to the Cambridge Dictionary, the word working means "an activity of doing work". In economics, work means "the activities and labour necessary to the survival of society. Work includes paid work, plantations and cultivation, self-employment businesses, and services.

### **Care-giving**

Care-giving outlined as care-giving includes caring children and family, volunteering and household activities and the senior citizens who were engaged in these activities were termed as care-givers.

The participation of the senior citizens in working and care-giving will create an outcome on the well-being of the senior citizens. Given the socio-economic status of senior citizens, there exists a positive relationship between productive engagement and their well-being (Morrow-Howell, 2000). The outcome of productive engagement among senior citizens was studied under three heads. They are

1. Outcome on Individuals (OI)
2. Outcome on Family (OF)
3. Outcome on Society (OS)

Individual, family, and societal outcomes are also referred to as their relative levels of social, familial, and individual well-being. The total well-being was made up of the well-being of the individual in question, the well-being of the family, and the well-being of society. Compared to young people, seniors are quickly displaced from paid employment. The senior's mental health was the subject matter where this employment loss had the most detrimental effects. Losing a job in later life has significant negative effects on the mental, social, and financial health of senior citizens. Senior citizens who find jobs again experience greater physical and mental health as well as better economic outcomes (Morrow-Howell, 2000).

## **1.8.2 Conceptual Clarity**

### **1.8.2.1 Economic Independence**

Economic independence means “expanding the capacity of an individual to make genuine choices in all spheres of life. It can be better achieved by imparting economic knowledge, providing access to economic institutions, widening sources of economic socialisation and enlarging decision making role”.

### **1.8.2.2 Productive Engagement**

Productive engagement means “involvement of the individuals in activities which directly or indirectly contributes to the economy by producing goods and providing services”.

## **1.8.3 Working Definitions**

### **1.8.3.1 Young-old Elderly, Older-old Elderly and Oldest-old Elderly**

In India, “any person being a citizen of India, who has attained the age of sixty years and above” were counted as senior citizens. The National Service Framework for Older People classified senior citizens into three groups:

- Entering Old Age: Senior citizens who completed their paid employment and are still active and independent were included in the entering old age group.
- Transitional Phase: Senior citizens included in this group are in transition between healthy, active life and frailty. This phase can be occurred at any time of old age, but for most of the senior citizens this transition takes place in the seventh or eighth decades.
- Frail Older People: Senior citizens whose health conditions are vulnerable were included in this category. Senior citizens experience it in their late old age.

United Nations defines senior citizens as persons aged sixty years and above. National Centre for Biotechnology Information categorise senior citizens based on their age into:



- Young old: Senior citizens aged 65-74 were referred as young old
- Middle old: Senior citizens aged 75-85 were regarded as middle old
- Oldest old: Senior citizens aged 85 and above were mentioned as oldest old.

The activities of senior citizens vary according to their age. Thus, it is necessary to categorise senior citizens according to their age, to study the engagement of senior citizens in productive activities. Since, in India citizens aged 60 and above were counted as senior citizens and in Census the age of senior citizens was predominantly categorised into three age groups such as 60-69, 70-79 and 80 plus, the present study classified senior citizens based on their age as:

- Young - old elderly: Senior citizens who are included in the age group of 60-69 were referred as young-old elderly. They were just entered to their later life and are more active and physically dependent.
- Older - old elderly: Senior citizens who are included in the age group of 70-79 were known as older-old elderly. They are undergoing the phase of transition from active life to frailty.
- Oldest -old elderly: Senior citizens who are aged 80 and above were known as oldest-old elderly. They were at the very late stage of their life and were less active and have more physical dependence.

### **1.8.3.2 Independent Access to Economic Institutions**

Independent access to economic institutions means senior citizen's ability to obtain or to take the advantage of something as services and institutions, which is available within 10 Kilometres.

### **1.8.3.3 Economic Knowledge**

Economic knowledge means the level of awareness of various services, opportunities, schemes, programmes and policies which increase the well-being of the senior citizens.

### **1.8.3.4 Sources of Economic Socialisation**

Sources of economic socialisation means on whom senior citizens depend for accessing information and services.

### **1.8.3.5 Decision- Making Role**

Decision-making role of the senior citizens means the power to make decisions in household affairs.

## **1.9 Research Methodology**

The study used both exploratory and descriptive methodology and primary and secondary data were collected for the analysis. The secondary data was mainly collected from the census years from 1961 to 2011. Various data were collected to substantiate the study from the Social Justice Department of Kerala, block panchayats and Panchayats in the districts of Wayanadu and Idukki. The primary data was collected from the senior citizens in the age group of 60-69 years from the selected 4 panchayats of the districts of Wayanadu and Idukki, with direct personal interview with a well-structured interview schedule.

### **1.9.1 Area of the Study**

The study is confined to the rural areas of Kerala. In Kerala, Wayanad and Idukki are the two districts which reveal large parity between the rural and the urban population. In the district of Idukki, 95.30 per cent of the population lives in rural areas and in the district of Wayanad, 96.13 per cent of the population lives in the rural areas. In addition to this, the density of population in the districts of Wayanad and Idukki are 384 and 255 respectively, which are the least among all other districts of Kerala. Hence, the study selected the districts of Wayanad and Idukki as the sample districts.

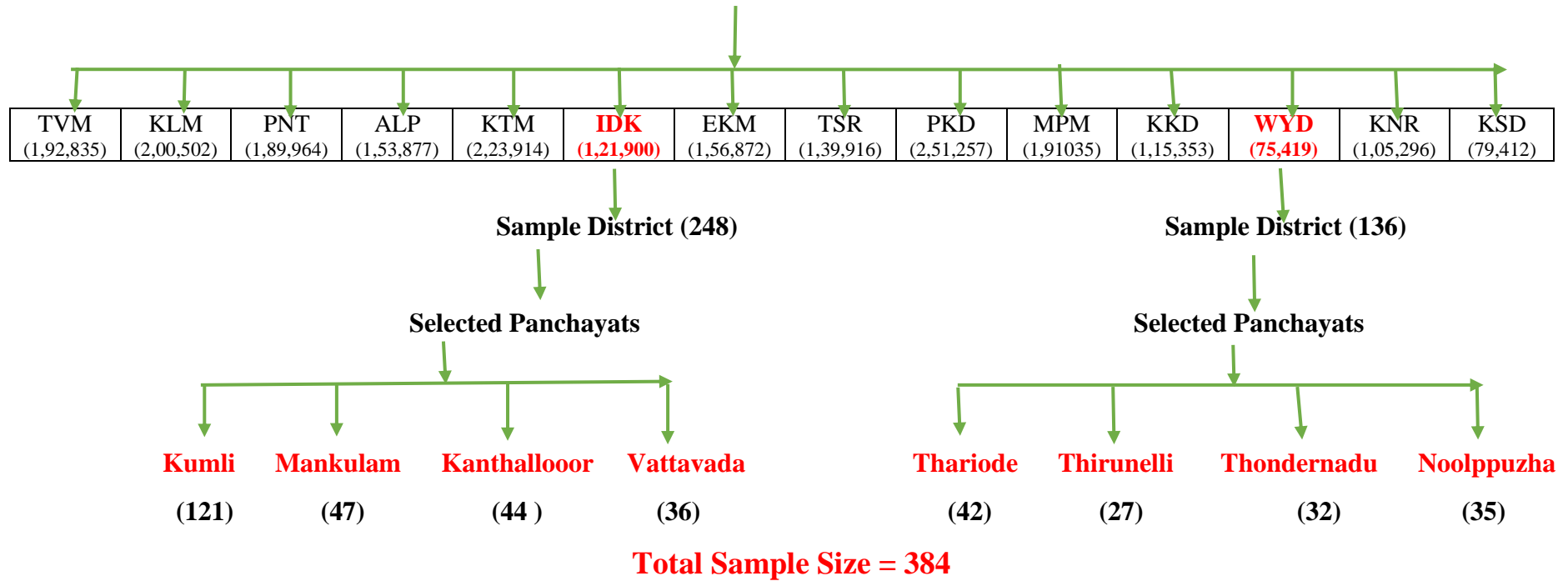
## 1.9.2 Sample Design

Figure 1.3

### Sample Design of the Study

#### Kerala (Universe)

(2197552)



**TVM-** Thiruvananthapuram, **KLM-** Kollam, **PNT-** Pathanamthitta, **ALP-** Alappuzha, **KTM-** Kottayam, **IDK-** Idukki, **EKM-** Ernakulam, **TSR-** Thrissur, **PKD-** Palakkad, **MPM-** Malappuram, **KKD-** Kozhikode, **WYD-** Wayanad, **KNR-** Kannur, **KSD-** Kasargode

### **1.9.3 Sampling Method of the Study**

Multi-stage random sampling was used in the present study to select the sample. The sampling districts were selected by using stratified sampling; the stratum is the size of the proportion of the rural population. The panchayats were chosen by using stratified sampling: the stratum being the size of the population density. The number and sample of the senior citizens were selected on the basis of proportionate random sampling method.

### **1.9.4 Estimation of Sample Size**

Cohen's Table was used to estimate the sample size. It is frequently used in estimating the sample sizes for statistical testing. In this study the population is 21,97,552. As per the Cohen's Table, the size of the sample is 384 at 95 per cent of the confidence level and 5.0 per cent margin of error.

### **1.9.5 Interview Schedule of the Study**

An interview schedule was carefully designed and structured for the collection of the responses from the senior citizens from the rural areas of two selected districts namely Idukki and Wayanad. The interview schedule was standardized after the pilot survey to ensure the accuracy and clarity and made necessary corrections to ensure smooth collection of the primary data. The interview schedule was standardized with IBM SPSS.

### **1.10 Limitations of the Study**

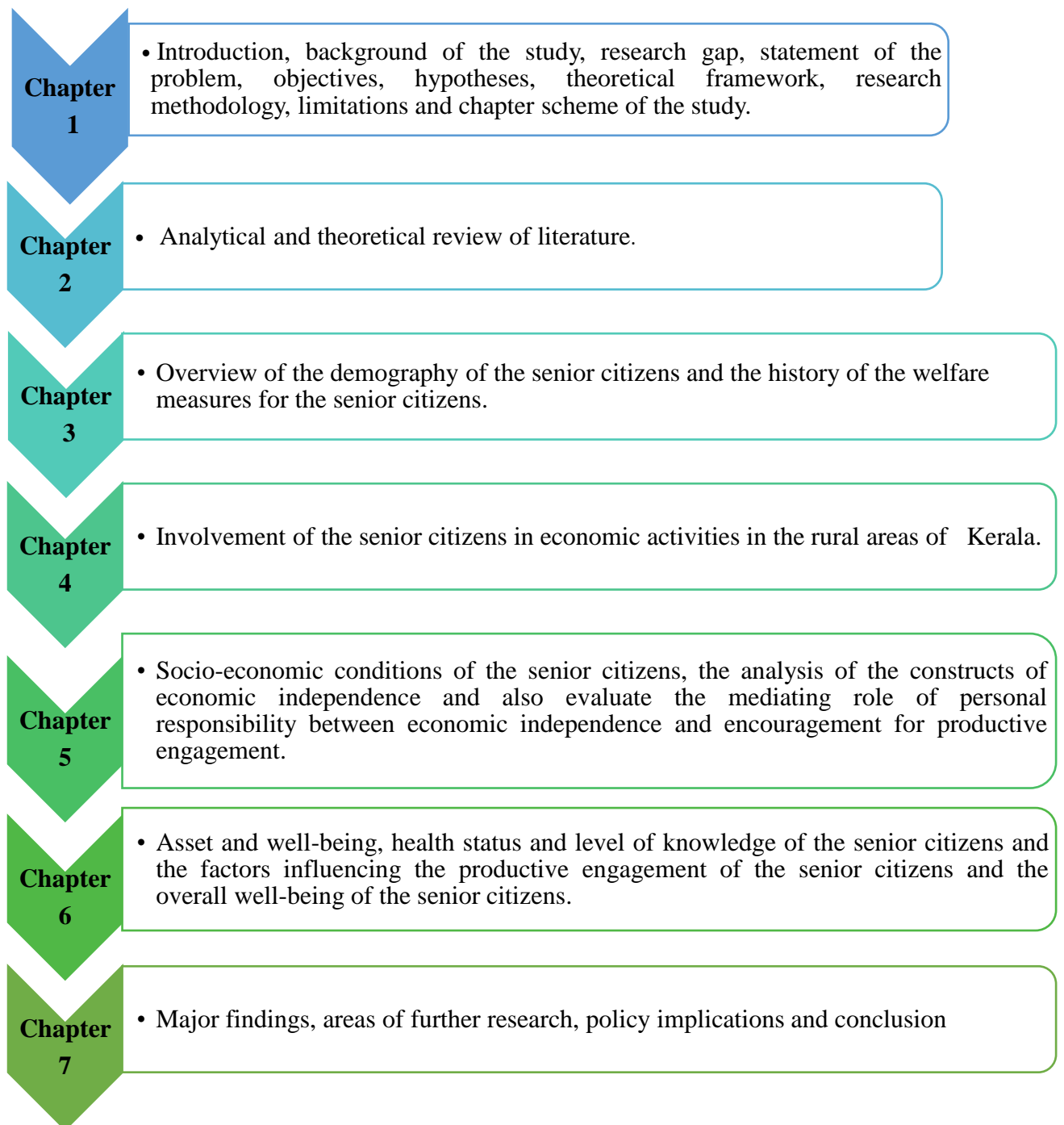
The present study is confined to the senior citizens in rural areas of Kerala and the primary data were collected from the districts of Wayanad and Idukki, which lies mostly in the highland covered with dense forest, deep valleys, and deep hills. The primary data collection of the present study was undertaken during the trying times of down pour and soil erosion. The major chunk of the data was collected between May 2022 to August 2022. The primary data collection was a tedious and time-consuming task. As explained in section 1.9 of the research methodology of the study, it is confined to the senior citizens from the rural areas of Kerala and selected the samples from the districts of Idukki and Wayanad. The senior citizens were reluctant to disclose their socio-economic status, especially their income during the initial stages of the data collection. Constant awareness and rigorous training had to be given with the help of the members of the wards of the concerned panchayats before eliciting the needed data.

## 1.11 Chapter Scheme

The study is organized in such a way that the entire study consists of seven chapters.

**Figure 1.4**

### **Chapter Scheme of the Study**



## **Chapter 2**

### **Analytical and Theoretical Review of Literature**

## **2.1 Introduction**

Population ageing has been a global phenomenon since more than 60 years ago, and in the coming decades, it is expected to accelerate. Since 1950, the number of people aged 60 and above has tripled; it reached 600 million in the year 2000 and crossed 700 million in the year 2006. By 2050, it is expected that there will be 2.1 billion people who are elderly. The less developed regions are seeing a more rapid pace of population growth, which indicates that senior citizens will be concentrating in the less developed areas. Growing longevity and decreased fertility are two demographic trends that may be connected and cause the ageing of the population. The economic influence of an ageing population is also crucial. However, population ageing also increases several categories of expenditure, including some funded by public budgets. The largest expenditure in many nations is health care, whose cost will probably increase extensively with the ageing of the population. The social security systems have also started to develop issues. As people live longer, current pension schemes are having trouble being financially viable. Workforce ageing is a factor as well. With an ageing workforce and poor human capital, older people would spend longer time at work, which would lower labour productivity. The likelihood of population ageing in the future raises concerns about the state's ability to address the requirements of the ageing population. A thorough study of the related literature helps in the identification of potential areas for additional research as well as new problems and gives new perspectives on existing problems.

The present chapter deals with the review of literature of the related studies, and the chapter was arranged in two sections. The first section deals with the analytical review of literature, and the second section deals with the theoretical review of literature.

## **2.2 Analytical Review of Literature**

The reviews on the analytical perspectives of the ageing population and the status of the senior citizens were arranged in the following order:

1. Reviews on concepts of ageing
2. Reviews on the impact of the ageing population
3. Reviews on the socio-economic problems of the senior citizens
4. Reviews on the economic independence and well-being of the senior citizens
5. Reviews on productive engagement of the senior citizens

### **2.2.1 Concepts of Ageing**

In a negative light, seniors were blamed for an increase in public spending and a burden on the working population. It is the primary rationale for adopting phrases like "Active Ageing", "Healthy Ageing", "Positive Ageing", "Successful Ageing", and "Productive Ageing" to combat the negative preconceptions of ageing. Senior citizens in affluent nations are often in good health and are assets rather than burdens. Ageing of the population is not a crisis. Senior citizens should be given the opportunity to continue playing an important role in society by accepting it as a natural part of the life cycle (Healy, 2004).

The five independent elements of positive ageing are: physical fitness, cognition, activity, affect, and health. The most crucial aspect is health, which is loaded with two objective measures like the number of chronic illnesses diagnosed and medicines taken, as well as two subjective measures like subjective assessments of one's fitness and health. Long life expectancy, education, career success, and adaptation processes like ageing are all predicted by cognitive assessments. Activities include both leisure and work, both of which are necessary for positive ageing. Three subjective measures—satisfaction, emotional stability, and self-efficacy—load affect, which has a beneficial impact on ageing. Body mass index and static and dynamic balance are used to gauge physical fitness. There were no standards to define positive ageing at an individual level. Healthy life expectancy is the key to developing positive ageing at the macro level (Fernández-Ballesteros, 2011). It is agreed that positive ageing involves more than just maintaining physical and mental function and the absence of disease.

The concepts of positive ageing emphasise the value of activity and call for ongoing, active participation in social and productive endeavours. Seniors have a tremendous amount of functional potential, and getting older is only another stage of development. A positive attitude towards ageing is a sort of psychological resistance to age-related declines; positive ageing is a psychological mindset that represents an individual's capacity to develop well-being throughout later life despite deteriorating functioning (Theresa L Scott, 2020)

Active ageing is the practice of ageing in a healthy, independent, and secure manner while continuing to participate in the formal labour market and other productive unpaid activities such as volunteering and providing care for family members. A social investment strategy and active ageing, as a policy discourse based on maximising the abilities of seniors, go hand in hand. The foundation of social investment is the notion that implementing social policies can have significant positive economic and social effects. The most crucial policy action that can be performed to get ready for rapid population ageing is enabling and boosting



older people's engagement in society and the economy. Senior citizens have to be empowered and encouraged to use their full potential through active ageing policies, especially by fostering a healthier, age-friendly environment (United Nations, 2013).

Longer life must be accompanied by ongoing opportunities for security, engagement, and health if ageing is to be a positive experience. The WHO has used the term active ageing to define the actions necessary to accomplish this goal. The term active refers to ongoing engagement in social, economic, cultural, spiritual, and political spheres as opposed to only the capacity for physical activity or employment participation. To improve quality of life as individuals age, active ageing involves maximising possibilities for health involvement and security. It enables people to participate in society in accordance with their needs, wants, and abilities and to realise their potential for physical, social, and mental well-being throughout their lives while providing them with adequate protection, security, and care when they need it (Active Ageing: A Policy Framework, 2001). The three pillars of active ageing are senior citizens health, social engagement, and acceptance of social security and care. Together, these three factors are referred to as active ageing. The health dimension is intended to avert illness and disability. Engaging in employment, volunteer work, and opportunities for action and learning is referred to as social involvement. Dignity, safety, and protection for the senior citizens are provided by social security and care (Manothai Wongsala, 2021). The elderly population over the age of 70 is ignored by the idea of active ageing because their continued participation in productive activities is lower. Even though it calls for more participation from seniors, the group mentioned above is not the target audience (Boudiny, 2013).

Health, physical and cognitive functioning, and life engagement were the three factors that laid out the framework for successful ageing. Successful ageing is characterised by continuing adaptation to age-related changes, including the predictable reductions in performance and function that come with ageing and the need to develop productive ways to cope with these deteriorations. In any stage of life, it is a state of being that can be precisely quantified at a given time. In order to create an age-friendly environment in society, minimise disability and functional loss, and ultimately promote good ageing, it is crucial that physical activity and social engagement be linked (Jacqueline A. Liffiton, 2012).

The idea of productive ageing was developed in opposition to the notion that ageing is a process of deteriorating physical and cognitive functioning and that seniors' contributions and potential to participate in activities are not recognised. The idea of productive ageing acknowledges that seniors can continue working or participating in activities that have socio-economic relevance. Productive aging has several meanings, depending on the context in which

it is defined. If it is defined in a more restrictive sense as any paid or unpaid activity that enhances one's capacity to produce products and services, in a broad sense, work includes both paid and unpaid labour; caring for others, volunteering, and providing direct and indirect services to family and society are all examples of productive activities (Kendig, 2013).

Independence is the key to productive ageing, and living comfortably in old age is undoubtedly the goal of productive ageing. Involvement in various productive activities boosts independence and establishes social support networks that provide a secure and contented golden year (Liu, 2021).

### **2.2.2 Impact of Population Ageing**

At the end of the twentieth century, population growth slowed down globally, and the twenty-first century was known as the century of population ageing. Numerous quantitative studies on the effects of population ageing on macroeconomic variables have been undertaken over the past few decades, and they have concluded that population ageing is a burden for the economy. Many nations began to establish effective social and economic policies and plans to address the challenges brought on by population ageing by avoiding these generalisations. A senior citizen's later life is greatly influenced by government social security programmes and family assistance (Shripad Tuljapurkar, 2004).

Ageing is a social achievement and a privilege. It is a dilemma that will affect every facet of civilization in the twenty-first century. It is a problem that neither the public nor the private sectors can solve on their own. Numerous factors contribute to the negative perception of ageing and senior citizens. The necessity of providing for their social security puts pressure on the economies of the countries, especially those that are developing. Ageing causes a person's body strength and functioning efficiency to decline, making them more vulnerable. From a sociological viewpoint, society denies them significant responsibilities like production, distribution, and resource management, as well as those of wage workers, parents, and homemakers. Their prestige is likewise reduced in accordance with their roles. Age-related changes can have a significant psychological impact as well. Obligatory retirement in later life frequently decreases people's economic independence and increases their susceptibility to illness. Negative attitudes towards senior citizens are prevalent in the socio-cultural environment when social security measures must be offered for a large section of the population. Senior citizens are therefore viewed as expendable, helpless, burdensome, and passive receivers of assistance measures (Chadha, 1996).

Ageing is a response to age-structural transition, including standard and unconventional measures. The over-dramatisation of this issue and conventional viewpoints on ageing sparked a panic and attracted the attention of decision-makers from other age groups. Migration and fertility have an impact on or have had an impact on the age-structural transition (Pool, 2010). The difficulties brought on by population ageing are a topic that is becoming increasingly significant, not just in Europe but also globally. Despite declining fertility rates, people are living longer than ever before. This indicates that the proportion of the population that is of working age is decreasing while the number of senior citizens is increasing. Utilising all of the available human resources is essential in light of these demographic trends and in order to achieve the policy objective of sustaining prosperity and social cohesion. People need to be able to continue contributing to the economy and society as they age and maintain their ability to care for themselves for as long as possible. This is the core idea behind the active ageing strategy (United Nations, 2013).

Senior citizens in developed nations are less dependent on earnings than on returns on investment. Therefore, if marginal returns to capital are reduced to even lower levels, senior citizens' economic well-being will suffer. Seniors' personal savings are essential when the family support structure is deteriorating (Andrew Mason, 2010). It is well recognised that in the near future, the population expansion in many developed regions will be marked by a clear ageing and shrinking. This finding particularly concerns the state of the labour market, specifically the size and age distribution of the labour force. Economic wealth will have to be paid by a declining proportion of the younger and middle-aged population making up the work force, which includes social insurance and pension plans for a growing number of senior citizens (Freund, 2010).

There is a significant inverse relationship between per capita GDP growth and population ageing for the period 1980–2010. The slower expansion of the labour force is the cause of the slower per capita GDP growth. Depending on the age distribution of the majority of the workforce and the particular skills that the company requires, population ageing also has an impact on many industries. The age profiles in the labour supply and productivity are not the only factors influencing how the ageing of the population affects labour force participation and productivity. Older workers may be complements or substitutes for younger workers such that changes in the older share may affect the economy's productivity and labor supply through interactions with younger workers. If productive older workers are likely to exit from the labor force, then the productivity spill overs from older to younger workers will lose (Nicole Maestas, 2016).

Ageing of the population causes an economic crisis in the economy. More public funds will need to be set aside by the government for social security and health care. Higher taxes on those who are employed will pay for an increased expense. As a result, the cost will rise and the working population will be burdened even more by the rising old age dependency ratio. Age-related population growth will result in a decline in the working-age population, which could have negative economic effects like inflation driven by increased wages (Abdul Azeez, 2022). The difficulty is getting society to stop viewing ageing as a social issue and start looking at senior citizens as productive resources for the family and society. Though the population ageing harms growth of the economy all over the world, this issue also affects senior citizens on a personal level. Senior citizens are concerned about the management of their limited resources with longer life span. They are worried about keeping their financial security, social connections, and health (Nancy Morrow-Howell, 2015).

People with challenges are likely to run into greater difficulties as they age. A change in illness patterns must always go hand in hand with emerging living and working styles. Disability and poorer standards of life are results of chronic diseases. When mental or physical disabilities make performing activities of daily life difficult, a senior citizen's independence is in danger. Policies and activities that help prevent and lessen the burden of impairment in old age are desperately needed in both developing and developed nations as the world's population ages. Think of decision-making in this area in terms of empowerment rather than disablement as one helpful approach. Disabling process increase the needs of older people and lead to isolation and dependence. Enabling process restore function and expand the participation of older people in all aspects of society (Active Ageing: A Policy Framework, 2001).

Senior citizens should be viewed as a social resource rather than a social burden because future generations of senior people will have higher expectations and mostly of them leading, independent, productive and socially useful lives. Seniors now have more economic and political clout than older generations did in the past. Therefore, it was anticipated that senior citizens in the future would keep working and make greater contributions to society as they aged. For older workers, labour needs to be more appealing, flexible, and controllable, and policymakers need to provide incentives to work longer hours (Healy, 2004).

Senior citizens are seen negatively since it is assumed that they will always be dependent on others and be a burden on society. If older people can maintain their health until the last years of life, and if they live in an environment that allows their ongoing productive engagement in society, ageing populations might instead be considered an overlooked societal resource. Senior citizens in urban areas accomplish happier goals than senior citizens in rural

areas. It helps to reduce the health disparities that are abundantly visible in this age group when senior citizens, regardless of their specific economic stage or origin, live in environments that encourage healthy behaviours and social interaction (Petitot, 2010).

### **2.2.3 Socio-economic Problems of the Senior Citizens**

The health and well-being of the senior citizens are affected by aspects like lifestyle, marital status, family support, social networks, income, work and conditions of housing. The elderly females have a high rate of illiteracy. Senior citizens are despised by the younger generation since they cannot function independently, and the younger people contribute more actively to the economy than the senior citizens. It is crucial to keep in mind when evaluating socio-economic status that, for a number of reasons, the needs of senior citizens represent an important concern. Due to economic imbalance, human dignity, social fulfilment, and economic security are not well-valued in our nation. Due to missed chances, a poor level of self-esteem, and prior social endeavours, the financial security of older women is constantly in jeopardy (Kumari, 2001).

Senior citizens with low socio-economic status tend to have a lower state of health. In later life, health issues are frequently present, and the health state is evaluated in terms of constraints on mobility, constraints on daily living activities, and psychological distress. There is a strong correlation between poor health in later life and income. Physical and psychological disabilities are inversely correlated with senior's educational status. Even if senior citizens' health outcomes were no longer correlated with their level of education, highly educated seniors still differ from other groups with better health (Alexander Darin-Mattsson, 2017).

The problems of the elderly are particularly manifest in daily life. They are caused by a drop in mobility, which prevents their involvement in both social and professional settings. Senior citizens in rural areas offer valuable human capital, yet the state frequently overlooks them. The issue is particularly concerning in rural areas, made worse by the lack of access to social services like healthcare. The number of senior citizen assistance programmes provided by local governments fails to measure up to expectations. Seniors' low-income levels and the state of the public community care services provided by local governments contribute to the lack of accessibility to care services. Forecasts for population growth indicate that the proportion of people beyond the working age will rise, necessitating actions to improve their circumstances. It is impossible to ignore the demographic changes. The elderly's policy must be designed to meet their needs and take into consideration variables like their place of residence and previous employment (Radović-Marković, 2013).

Poverty is the senior citizen population's biggest issue. Because of the senior citizens have little or no money, they suffer from malnutrition, leading to depression and mental confusion. Older women experience lifetime gender-based discrimination in addition to issues with literacy, unemployment, widowhood, and disability. As a result, men and women age in different ways. After the age of 65, ageing-related issues start to show up. Today, senior citizens deal with issues related to their health, finances, social lives, and psychology. The issues include not having a stable and sufficient source of income to maintain themselves and their health, not having social security, losing their social status and recognition, and not having access to opportunities for recreational activity. Depending on their age, socio-economic circumstances, and other background factors, the needs and problems of senior citizens vary. The issue tends to get worse if senior citizens are economically reliant on younger generations. Older people suffer special losses greatly with age. The loss of a job, the death of a spouse, close family members, or friends, as well as poor health, all have an impact on socially active senior citizens. The common psychological issue is that the majority of senior citizens confront problems like feelings of powerlessness, inferiority, despair, loneliness, and reduced capability. The issue of "where to live peacefully" has been a concern for a sizable portion of the senior population (Prasad R. , 2017).

With changing family structures, the senior citizens do not automatically have a role to play within the family and the society, and their care and support are not automatically provided for. Therefore, policies and plans must provide a system of support that will allow senior citizens to stay in an active role in society and the family, as well as allow families to continue serving as the primary carers for senior citizens. Many of the challenges that older people face is the result of significant social and economic changes. Therefore, the economic growth of rural areas will have a number of benefits, such as an increase in the income and welfare of the affected families, less social conflict, and the provision of more and different economic options for senior citizens, leading to improved support and care during old age (Tan, 1999).

The nature of family and domestic support has had a significant impact on the care provided for senior citizens. The main issues faced by the senior citizens include chronic illness, physical and cognitive impairment, loneliness without social or emotional support, elder abuse, and financial instability. Senior citizens who reside with their families frequently experience isolation and insecurity. Due to generational disparities, nuclear families, changing lifestyles, and property issues (Abdul Azeez, 2022). Rural senior citizens do not retire and do not receive retirement benefits. They work until they are unable to work anymore in order to survive, regardless of their age. They make an effort to get beyond their physical limitations so

they can keep doing active work as long as they are able to. Due to their physical limitations, seniors frequently experience social exclusion and discrimination. Senior citizens are viewed as having lower middle-level or lower socio-economic status in rural places. Children of the senior citizens with poor economic and social circumstances frequently have limited opportunities for higher education; as a result, intergenerational upward mobility for them is extremely limited, which reinforces the socio-economic structure already in effect (Liu, 2021).

The most important issue that emerges from the ageing process is how best to provide economic and social support for the senior citizens. The two most significant sources of support for senior citizens are family and the government. A healthy family dynamic is sufficient for independent and successful ageing, but shrinking families are a cause for concern. Excessive reliance on either family or the government is not a good sign; hence, it has long been recommended that many facets of society work together to assist the senior citizens. The urgent requirement is for solid policy implementation for the ageing population (Chattopadhyay, 2004). Ageism has connections to age discrimination, which refers to the unfair and negative treatment of equals in the workplace and is very significant to potential legislative solutions. When an employer chooses to hire, promote, retrain, retire, or fire an employee, age becomes a deciding factor. This is known as age discrimination in the workplace. The effects of ageism can be felt by both senior citizens and young employees. Both being 'too young' and 'too elderly' are legitimate reasons for discrimination against individuals (Barbara Ingham, 2009).

#### **2.2.4 Economic Independence and Well-being of the Senior Citizens**

Both men and women who participated in paid work or volunteer work experienced positive outcomes in their well-being. Among women, the associations between paid work and well-being were attenuated by age, health, and, to a lesser extent wealth, whereas in men, the associations between paid work and depression were explained by health and, to a lesser extent wealth. Additionally, affluence weakened the links between life happiness and volunteering among men (Anne McMunn, 2009). The well-being of senior citizens depends on a number of variables, which includes physical and mental health, their living conditions and level of independence, personal and social relationships, working capacity, access to health and care, home environment, transportation options, and the capacity to learn new skills. Seniors in urban areas have better well-being than senior citizens in rural areas, which are characterised by large populations and limited resources. Thus, policies and programmes must be implemented for the welfare of the senior citizens in the rural areas without neglecting the needs of the senior

citizens in urban areas (Lalitha, 2016). While urban elderly had a greater quality of life in social relationships and environmental groups, the rural elderly had a better quality of life in the physical and psychological domains. This may be because of sociodemographic characteristics, chronic diseases, social resources, lifestyle choices, and financial resources (Abhay Mudey, 2011).

Senior citizens in rural areas no longer receive much consideration because of the change in the attitude of society. As a result, they have emerged as society's most vulnerable victims, particularly elderly women. The older women's living situations are constantly changing. Over the course of their lives, they evolve and embrace new situations. Their circumstances are largely influenced by a number of variables, including marital status, financial security, health status, family size and structure, and cultural customs. Additionally, as they grow older, they have a lack of physical and mental health, primarily as a result of the inadequate assistance they receive from their family members. The most important issue that needs to be addressed by society as a whole is health problems. It was shown that practically all women experience some kind of disability. Ageing women may have been invisible in social policy due to presumptions regarding the dependency of old women throughout their lives. Although these assumptions are being replaced by policies through which the independence of women is legitimated, the older woman's vulnerability remains unchanged. The older women frequently have physical impairments. Medical care is essential for their normal functioning. The elderly women recorded the lowest consumption expenditures, the highest percentage of primary-level education, the highest levels of negative affective psychological conditions, and the lowest income per person. They were also the most impoverished group. They were no longer employed, either fully or partially dependent on others, and confronted health issues while feeling neglected by their family members. Initiatives are increasingly required to protect this vulnerable population's health and to develop a strategy that will address their demands for care as they age and become incapacitated (Hiremath, 2012).

Due to costs associated with health, social security, and education, a population with a high dependency ratio can deplete the resources in a nation. A higher dependency ratio of the population in the non-productive age group is a result of the faster growth of the elderly population. As a result, either young wage earners, who make up the productive section of the population, or the government will be responsible for providing care for the elderly. However, there are also older people who are independent and over sixty years old, whereas many people in the so-called working age category are actually not employed. Therefore, it appears that the 'economic dependency ratio' is crucial to evaluating the demographic and economic status of



senior citizens. More economic dependency for elderly women may be contributed to by traditionally male-dominated civilizations where men control all financial resources and women have lower educational levels. In other investigations, it was discovered that more elderly females were depressed than elderly males, suggesting that older females are more prone to depression. Elderly people who were economically dependent had higher rates of depression than those who were independent. In addition to social, cultural, and natural causes of sadness, economic dependency appears to be a significant contributing factor (Charchit P. Mehta, 2016).

Senior citizens are also concerned about financial instability. They are poor and have limited sources of income. Their social rights are frequently ignored, and they experience discrimination and rejection in the workplace. Even though they have the opportunity to demand certain rights, their requests are rarely honoured. Their access to amenities is far from complete, and many of their basic requirements go unfulfilled. Senior citizens become more vulnerable as a result, and prejudice towards them in society makes it difficult for them to interact with others (Liu, 2021). In India, the family system is still emphasised, and most of the senior citizens still reside with their families. The senior citizens have been found to be highly dependent, particularly elderly women and widows (Prasad, 2009). According to advancements, more women from developing countries will be able to increase their capacity to prepare effectively for old age through longer educational input. Continued employment, especially in the formal sector, would increase the likelihood that people might save money for the future and take advantage of pension plans. The adult women of today will have a high chance of experiencing financial and personal independence in their old age with support from policymakers who might help secure access to chances for development and full engagement in development (Domingo, 1999).

The elderly in India, especially the elderly women, are particularly vulnerable owing to issues like insecure income, illiteracy, and physical and economic dependence. Improving the well-being and quality of life of the senior citizens includes significant programming and policy implications. At the level of the individual, family, community, governmental, and non-governmental organisations, the strategy must be multifaceted and holistic. There must be opportunities for raising socio-economic status and expanding access to healthcare services (Kandpal, 2014). The economic independence of the senior citizens is a key indicator of their well-being. The majority of the senior citizens entirely depend on others for their economic security. Due to the severe economic instability among the country's senior citizens, social security measures like old-age pensions play a crucial role in their well-being. In order to

maintain an adequate standard of living, social security is intended to ensure that those in need can satisfy their fundamental needs as well as be protected from unforeseen occurrences like illness, disability, accidents, unemployment, medical care, widowhood, and old age. The government must promote active ageing by providing senior citizens with alternative employment possibilities, as this would help them maintain their financial security and prevent dependency-related mental health problems. Existing multisectoral policy initiatives aimed at the welfare of older adults by the state must be revisited and reevaluated. The senior population should be protected from discrimination and abuse (Srinivas Goli B. R., 2019).

### **2.2.5 Reviews on Productive Engagement of the Senior Citizens**

Senior citizens perceive that there are considerable barriers and incentives preventing them from continuing in or returning to formal productive occupations. They are unable to participate in these roles or can only do so very difficultly, despite the fact that they may want or even need to. The institutionalised framework of opportunity has been unable to keep up with the growth in the capacity and desire of the senior citizens to play productive roles. Society is still unequipped to offer opportunities for continued productive engagement for the senior citizens. However, those who support productive ageing oppose the idea that the majority of senior citizens become net consumers of resources and cease making active contributions to society. Although research has shown that there exist substantial differences in the amount and type of productive behaviour within the population of the senior citizens because people are able to spread their efforts and time across a variety of activities, the vast majority of senior citizens today do engage in any kind of productive behaviour (Bass., 1995).

The productive engagement of senior citizens is closely related to senior citizens' social roles and shaped by their status during specific life stages. For different groups of senior citizens, more specialised programmes should be implemented. The actual type of care that people provide at different phases of life should be carefully considered when designing supportive programmes for senior citizens, as well as the possibility of combining it with other beneficial activities. To prevent them from being excluded from the current framework of productive ageing, policymakers and practitioners must provide alternatives that meet their capacity and needs (Lou, 2016).

The ability of people to begin and continue on with productive activities after turning 60 has been increasing throughout time as the health, education, and financial security of the senior citizens have improved. The society has to utilise the skills, experience, and capacity of the senior citizens to make societal contributions through employment, volunteerism, and

caregiving. Designing, evaluating, and implementing programmes and policies into action makes it possible. The creation of new programmes and policies should take into consideration the opportunities for knowledge and skill acquisition throughout an individual's lifespan (Nancy Morrow-Howell, 2015).

Senior citizens participate in the labour force at a relatively substantial rate; if we count physical labour performed around the house, that percentage rises to almost 50 percent. This is more evident in the case of the elderly women, as more are engaged in household activities. But in reality, the participation level is low in the case of gainful employment, and unemployment levels are negligible (Prasad, 2009). Even though their contributions may go undetected or undervalued because they are overshadowed by their exit from the labour market, if the definition of productive is broadened to include activities that occur outside the market, we find that many people do remain productively engaged (Herzong A. R., 1992).

The authorities have to acknowledge and facilitate the active participation of the senior citizens in economic development initiatives, formal and informal work, and volunteer activities as they age, in accordance with their unique needs, preferences, and capacities, in order to increase the number of senior citizens who are actively engaged in productive activities. It must guarantee that the senior citizens have equal access to loans, income-generating activities, and development incentives and assistance as younger people do. The government should implement employment and labour market policies and programmes that allow senior citizens to participate in productive employment in accordance with their unique needs, preferences, and capacities. These policies and programmes should also acknowledge and support the contribution that senior citizens make to unpaid work in the informal sector and in providing care in the home. It also recognises the value of volunteering and expands opportunities to participate in meaningful volunteering activities as people age, especially those who want to volunteer but cannot because of health, income, or transportation restrictions (Active Ageing: A Policy Framework, 2001).

Instead of being considered a condition apart from the rest of society, ageing should be seen as a natural aspect of life. Both the senior citizens who provide care and those who require care can be caretakers. In addition to being important consumers and contributors to the economy by rendering valued services, both paid and unpaid, they can also be recipients of benefits like pensions and health care. Even if senior citizens are not paid for their efforts, the volunteer, community, and care work they perform should be acknowledged and rewarded. Retirement from the workforce should not be viewed as the end of one's productive life; instead, it should be seen as the beginning of new opportunities and possibilities (Kelly, 2003).

A smaller and older labour force is the result of population ageing and slow population growth. In the coming years, population ageing will substantially counteract the positive impact of rising female labour force participation rates on the size of the workforce. Over one in three workers will be anticipated to be older than 45, which will accelerate the ageing of the labour force (Jose Alvarado, 1998). In the earlier stage of the later life of senior citizens, older men are more likely to participate in income-generating work than the elderly women, while elderly women are more likely to take up a care-giver role. The pattern of engagement in various forms of social activities is sex-differentiated. Higher-educated seniors are less likely to work but more likely to take part in social activities than senior citizens with lower levels of education. Social involvement and health status are strongly correlated (Ariane Utomo, 2018).

When older workers are no longer needed by capital or the agencies of capital, they are superannuated and frequently encouraged to leave the workforce early. Their skill, ability, and knowledge are also disregarded by using derogatory terms like "obsolescent," "unproductive," and "inefficient." However, there is no evidence that suggests that older workers' ability to be productive is declining over time at any given age, for example 65. Therefore, the development and aggressive implementation of age-barrier retirement must be primarily justified in terms of social and economic issues. Employment is not only the primary source of income and status in industrial societies; it also has a major integrative function in providing the basis for participation in a wide range of roles and relationships. As a result, their network of social contacts is diminished as a result of their departure from the labour force. Furthermore, since work is the main activity in industrial communities, they often experience a loss of self-esteem. Additionally, a senior citizen is more likely to experience alienation if they internalise society's unfavourable stereotype of old age. In conclusion, substantial social reform is required to free the senior citizens from the chains of dependency and poverty. The senior population has accepted these 'facts' of ageing for far too long (Walker, 1980).

Provisions for a rise in the retirement age offer new work-related opportunities and incentives. They also make it possible to concentrate on the wealth of knowledge, skills, and experiences that many senior citizens have. In this sense, the legislative and policy changes and reforms listed above provide senior citizens with a chance to be recognised as productive members of society. This is significant because it recognises the fact that not all senior citizens are unemployed and that not all senior citizens choose to stop working. However, images of ageing as productive can at times be overly exaggerated and may not adequately reflect the reality of the day-to-day lives of many senior citizens (Timonen, 2010). A fresh look is needed at the contributions the elderly make to their social lives. This discussion attempts to provide a

better understanding of situations, the contributions of the senior citizens, and a glimpse into how to improve the "active ageing" well-being of the senior citizens. It would assist with formulating a plan of action to create a society for the senior citizens that values independence, participation, dignity, care, and self-fulfilment (Chadha, 1996). The experience and knowledge of the senior citizens might be organised and used as a pool of valuable resources to develop policies and participate in decision-making. Once this happens, they will be able to control economic resources and access opportunities. They can play a catalytic role in economic and social development, which would create a good impression about the senior citizens in society by adopting novel employment possibilities that reflect the changing strengths and requirements of the elderly employees. Since future generations of the senior citizens would be well educated and the majority of jobs requiring advanced technology and in the service sector which do not require much physical strength, senior citizens could potentially be employed as first reserves in times of labour scarcity (Tan, 1999).

In the case of full-time employment among senior citizens, female participation is lower than male participation, while in part-time employment, female participation is higher than male participation. Engagement in care-giving, caring for other's children, was higher for older age group and volunteering also shows the same trend. Compared to the elderly men, elderly women were more active in volunteering and providing care. Senior citizens who are in good health engage in productive activities. Senior citizens with high levels of education were encouraged to volunteer and work full-time or part-time. Senior citizens who live in households with higher incomes are more likely to work full-time and less likely to work part-time (Kendig, 2013). Senior citizens actively engage in productive activities in rural areas. They take part in farming, household duties, and child care. They encourage the growth of the family and the community and ought to be honoured by society. For them, productive ageing is a means of survival rather than a duty or a choice. They earn a living, protect their right to survival, earn respect, and build and maintain their social support networks through productive activities. In actuality, senior citizens do not retire in terms of economic production. As long as they can move around, regardless of their age or level of impairment, they actively engage in farming (Liu, 2021). Today, the majority of the elderly population still struggles with a low employment rate as a result of problems in the employment policy scheme for seniors that the government previously enacted, such as a lack of flexible scope of labour and no subsidy programme for the employer. The government is advised to develop a better understanding of the employment challenges faced by senior citizens with different degrees of education or skill, as well as to put policies into place that will be enforced in employment services and job

training for the corresponding elderly populations in the future. If an aged workforce is beneficial for productivity growth, policy should be focused on finding ways to encourage older workers to continue working (Wen-Hsin Huang, 2019).

Ageing is a natural process, and young, healthy seniors are a valuable resource for their families, their communities, and their economy as well. Lack of policy, which will regulate these issues, forces elderly people to live in poverty instead of recognising their active economic and social contribution. Therefore, the aim of any community is to provide people with the chance to work and be productive for as long as they decide to do so (Radović-Marković, 2013). The increase in work participation among the senior citizens may be indicative of the deterrence in providing employment to the working age population. This is due to the fact that older adults who are physically active may take on even low-paying jobs just to keep themselves engaged, which in turn lowers the population's ability to bargain. In addition, it is crucial to provide senior citizens with social and financial stability. Age causes a person's power and vitality to decline as they get older. Even though some people now choose to continue working after they retire from their employment, most of these occurrences are deemed to be intentional. However, those who do not work in the organised sector, such as street vendors and daily labourers, are compelled to work until they are 80 years old. Their situation is made worse by illiteracy, unskilled labour, and a lack of bargaining power (Kar, 2016). This is due to the fact that older adults who are physically active may take on even low-paying jobs just to keep themselves engaged, which in turn lowers the population's ability to bargain. In addition, it is crucial to provide senior citizens with social and financial stability. Age causes a person's power and vitality to decline as they get older. Even though some people now choose to continue working after they retire from their employment, most of these occurrences are deemed to be intentional. However, those who do not work in the organised sector, such as street vendors and daily labourers, are compelled to work until they are 80 years old. Their situation is made worse by illiteracy, unskilled labour, and a lack of bargaining power (Nancy Morrow-Howell M. S., 2004). Senior citizens devote their skills and efforts to meeting their needs, and this has a tremendous positive impact on people, families, and communities. Improved health and performance for the senior citizens are the probable results of their productive engagement. Society should adopt a comprehensive public policy agenda that promotes healthy ageing and places a priority on engaging in productive activities (Kumari, 2001).

## 2.2 Theoretical Review of Literature

People of different ages showed various levels of active participation in social and economic activities, and it was discovered that senior citizens showed lower levels of involvement. Seniors with lower levels of education, skills, and socio-economic advantage tend to be inactive and unemployed (Ken Mayhew, 2004). The existing state of deprivation must be improved by offering education and training in order to have a shift in society's perception of senior citizens and for senior folks to be considered productive resources. According to Gary Becker's Human Capital Theory, every individual possesses a distinctive set of talents and abilities that may be developed and added to through education and training. "Human capital is the stock of skills and productive knowledge embodied in people. The yield or return on human capital investments lies in enhancing a person's skills and earning power, and in increasing the efficiency of economic decision-making both within and without the market economy" (Rosen, 1989).

For common individuals, "capital" refers to a bank account, shares of stock, and assets like houses, vehicles, machinery, and manufacturing plants. These are all assets that provide income and other valuable outputs over an extended period of time; thus, they are all capital in that sense. Capital expenditures include things like education, computer classes, medical costs, and lectures on the value of promptness and honesty. These are seen as capital because they boost a person's lifetime of good deeds, improve their health, or raise their income. Analysts therefore interpret human capital investments as being undertaken in sectors like education, training, health care, and so forth. People are referred to as human capital because they cannot be separated from their knowledge, skills, health, or beliefs in the same way that they cannot be removed from their financial and physical assets. Education and training costs are the biggest investments in human capital (Becker, 1975).

According to the commonly accepted value of human capital theory, individuals must believe in their skill, knowledge, and ability as the fundamental principles of value creation in order to boost their performance. According to Becker, human capital can be accumulated through migration, education, training, and health. Investment in human capital is crucial since it is the asset that generates income for both the individual and the economy (Wuttaphan, 2017). There are two ways that work functions in everyone's life. It has two effects: it influences future productivity and current income. According to the concept, investment declines with age. Additionally, it enables the amount of investment in future output to be based on how much

the ability to continue learning new abilities improves or detracts from previously gained talents (Welch, 1975).

According to Becker's Human Capital Theory, there is a positive correlation between income and education. The theory also outlines the mechanism by which education improves skills, which in turn boosts production and leads to higher earnings as a result of increased productivity (Seong-O Bae, 2014). Increased life expectancy, better health, and improved functioning into later years for senior citizens are all results of the development of the health sector, which is a component of human capital. People of all ages benefitted from the increase in health capital in terms of productivity and overall well-being (Kenneth G. Manton, 2009).

## **2.2.1 Theoretical Models Used in the Study**

In the present study, two models were used. They are Model of Economic Independence and Productive Engagement at Old Age and Productive Engagement in Later Life Model.

### **2.2.1.1 Model of Economic Independence and Productive Engagement at Old Age**

The two theoretical paradigms shape this model were Identity Capital Theory of Financial Independence (Sarah Martin Butterbaugh, 2020) and A Model of Prerequisites for Employment at Older Ages by (Radović-Marković, 2013). The Identity Capital Model of Financial Independence is used as the model as well as the theoretical background to the discussion of economic independence. The model of Prerequisites for Employment at Older Age is a model of encouraging attitude towards employment, elimination of discrimination against older workers and set the precondition to its implementation. Together, these two theories provide an explanation to how economic independence and productive engagement are related.

#### **Identity Capital Theory of Financial Independence**

The Identity Capital Theory of Financial Independence was developed by Sarah Martin Butterbaugh, D. Bruce Ross and Alyssa Campbell by combining Emerging Adulthood Model and Identity Capital Theory. Emerging adulthood is important in this model, as it provides the theoretical background to the discussion of financial independence. Identity capital theory provides a framework of which financial independence is obtained by emerging adulthood. Together, these two theories provide an explanation as to how financial independence and well-being in emerging adults. The Identity Capital Theory of Financial Independence was generated by means of inductive theory development, based on the existing theoretical and



empirical data relating to identify capital theory, emerging adulthood, and financial well-being. Financial independence is important to not only the Emerging adult, but also to their parents and society at large. Subjective financial independence is an important sign of maturity as well as a marker of financial security throughout adulthood. Emerging adults begin the process of taking personal responsibility and making decisions that will impact their financial independence, such as interacting independently with a bank or financial institution. Many emerging adults are also relying on their families for financial support. Since emerging adults may be in the process of acquiring financial resources, or are currently relying on parental support, they may not have established an independent, stable financial state. Therefore, financial stability in emerging adulthood may not be the best measure of how “well” a person is doing as they enter this period of life. Thus, the model uses identity capital theory, particularly examining the environment and context of the individual influences the use of an individual’s tangible and intangible assets towards financial independence. Having the financial ability to meet current demands, while also establishing future financial goals offers emerging adults a sense of security, which in turn cultivates perceptions of financial management and stability. The state of financial well-being, therefore, is fundamental in attaining financial independence because it not only provides evidence of financial competence, but also contributes to perceptions of sound financial management (Sarah Martin Butterbaugh D. B., 2020).

### **A Model of Prerequisites for Employment at Older Ages**

Senior citizens in rural areas are more likely to be employed than to be volunteering or providing care. They are primarily involved in agriculture and agricultural-related work, such as caring for animals. Salary employment for both men and women are extremely uncommon in rural areas. Therefore, they need to be creative and innovative in order to increase the productivity and profitability of their line of work. Although they engage in economic activity by volunteering and providing care, this does not translate into financial independence. Therefore, they must be heavily utilised in order to become independent and a resource to the state.

A Model of Pre-requisites for Employment at Older Ages by Mirjana Radovic-Markovic (2013), is a model of employment and elimination of discrimination against older workers and sets the pre-condition to its implementation. The advantages of hiring senior citizens are also emphasised in this model, both at individual as well as social levels. It illustrates how we might boost economic growth by making senior citizens more productive. They are all intricately linked to one another and work together to create equal employment

opportunities for everyone, regardless of age or gender. According to the Pre-requisites for Employment at Older Ages Model, there are four steps for promoting economic growth and development by offering equitable chances for everyone, regardless of age or gender. The four steps are: developing a training curriculum for senior workers; promoting the development of creative skills; entrepreneurship; and economic growth. The first step is to create a training programme for senior citizens. It has to be in line with what senior employees want and what the position requires. By doing this, the lack of experienced senior workers can be reduced. The following phase is to foster their creative abilities. By giving people the chance to explore new concepts and methods of thinking, it also enhances mental wellness. Call them with innovative ideas for new small businesses. These offer seniors more options to access and remain in the workforce. Additionally, fostering entrepreneurship development promotes self-employment and improves the standard of employment and working conditions for senior citizens. Both the level of living and wealth creation can be improved by it. It promotes growth in the economy, which lowers unemployment and poverty among the senior citizen population. Thus, only minimal effort is required, which is essential in converting senior citizens into a trained workforce. Finding fresh approaches to the issue of hiring seniors is essential. In order for senior citizens to be employed, a number of pre-requisites must first be met, including raising the level of qualification for this population category, encouraging self-employment, eliminating all forms of discrimination, and establishing equal working and employment opportunities for all age groups (Radović-Marković, 2013).

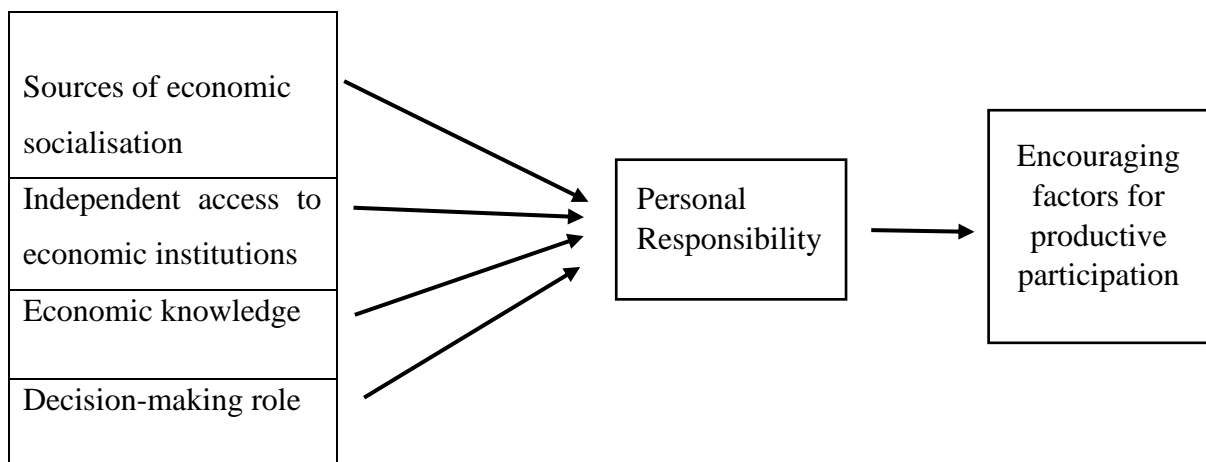
### **Model Framework**

It is wrong to think of economic independence as the complete opposite of economic interdependence. It does not imply lessening reliance, negotiations, or cooperation. Economic independence is not defined in a way that is universally recognised and accepted. Many academics and interest groups have different ideas about what it is. As a result, there is dispute among academics over what it requires and how to get there (Al-Rahmani, 1988). The present study defines economic independence as “expanding the capacity of an individual to make genuine choices in all spheres of life. It can be better achieved by imparting economic knowledge, providing access to economic institutions, widening sources of economic socialisation and enlarging decision making role”. An individual needs to be economically independent because it gives them a sense of satisfaction. If individuals have more control over the actions, forces, and institutions that have an impact on their lives, they feel more content and confident (Al-Rahmani, 1988). The Model of Prerequisites for Employment at Older Ages emphasises the advantages of hiring seniors, both personally and in terms of society as a whole.

It discusses how encouraging competition among senior citizens might help a society thrive. They are all interconnected and work together to provide everyone with equitable employment possibilities (Radović-Marković, 2013). Social scientists can examine how people might strategically manage the many aspects of their subjective, interpersonal, and social lives from the perspective of the Identity Capital Model (ICM), which offers this perspective (Côté, 2016). Here, arises the role for personal responsibility of the individual. Developing, organising, and executing personal responsibilities is crucial because it helps an individual to manage their active life strategically at all their age. Accomplishment of personal responsibility enables an individual be the guardian of their own choice and professed identity. Thus, the proposed model (Figure 2.1) developed by combining Identity Capital Theory of Financial Independence (Sarah Martin Butterbaugh, 2020) and A Model of Prerequisites for Employment at Older Ages by (Radović-Marković, 2013) investigate the mediating role of personal responsibility in the relationship between economic independence and encouragement in productive participation of senior citizens in the rural areas of Kerala.

**Figure 2.1**

**Model of Economic Independence and Productive Engagement at Old Age**



Many senior citizens are currently engaging in productive activities, including working and providing care. A sustainable proportion of older adults engage in not only one type of activity but participation in multiple productive roles. Additionally, senior citizens who are still employed represent a variety of occupations. It suggests that there are numerous facilitators and impediments to senior citizens engaging in productive activities, including employment, caregiving, and volunteering. Further investigation is necessary to identify motivating factors delineating older adult ability versus desire to engage in various types of productive roles,

including employment, caregiving, or a combination of the three. It takes creative approaches to find ways to encourage senior citizens to engage in productive activities, from individual interventions to safeguarding and improving employment, educational, and community policies and programmes. Such productive ageing solutions and efforts should take into account heterogeneity in socio-demographic, health, and environmental aspects to be inclusive of all groups of senior citizens, given the diversity in the senior citizen community (Ward, 2020).

### **Model Development**

To ensure active and successful ageing, India needs a strong social security system that handles fundamental ageing issues such as adequate living arrangements, economic independence, and social security. Among these, economic independence is the most important sign of senior citizens' wellbeing (Srinivas Goli, 2019). Seniors who are independent enjoy a higher quality of life compared to those who are dependent or less independent. Due to their declining income as they get older, citizens after the age of 60 become more and more dependent on others for their financial needs (Sumara Naz, 2014). Senior citizens are less likely to participate in activities due to a variety of situational considerations, such as their health, access to transportation and communications, their financial status, the worker's willingness, and their own competence, training, and credentials (E. Michael Brady, 2016). These barriers can be removed through imparting training and knowledge, providing easier access to economic institutions, services, and facilities, increasing the role of others, and minimising dependency on others. All these together constitute economic independence, and by making senior citizens economically independent, they were encouraged to participate productively themselves. Here, the willingness of senior citizens to engage in productive activities is also an essential factor. Even though senior citizens are economically independent, they are not all encouraged to participate productively. On the other side, unless senior citizens were not economically independent, a few of them were engaged in productive activities because of their responsibilities. Thus, the proposed model of the study investigates the role of personal responsibility in the productive participation of senior citizens.

#### **2.2.1.2 Productive Engagement in Later Life Model**

There are a lot of problems to confront while preparing strategic guidelines for uplifting senior citizens in rural areas. Diversity in the socio-economic components of their lives is the dilemma in preparing such programmes or policies. The "Productive Engagement in Later Life Model", is used to illustrate such factors and their effects. The "Productive Engagement in

Later Life Model" is an altered version of "Productive Engagement in Later Life: A Cross Cultural Framework" by Nancy Morrow Howell and Yi Wang, developed in 2012. They developed the model based on the World Health Organisation's (WHO) Active Ageing Framework (2002) and the "Productivity in Later Life Model Proposed by Sherraden et al. (2001). This framework consists of two parts: antecedents and outcomes. The antecedents include three types of determinants: social factors (SF), economic factors (ECF), and public policies and programmes (PPP). These determinants influence the productive behaviours of working and caregiving. Working and activities are viewed as intermediate outcomes. Ultimately, working and caregiving have a multi-level effect on individual well-being, family well-being, and social well-being (Nancy Morrow-Howell, 2012).

In Kerala, a sizable share of the senior citizen population is engaged in the labour force. These include employment, cultivation, volunteering, caregiving, and entrepreneurship. The kinds of activities senior citizens engage in vary depending on their income, age, health, abilities, and a number of other characteristics. These activities have different effects on an individual, a family, and society. Therefore, in order to study the productive engagement of senior citizens, it is first important to examine the socio-economic environment and its effects on families and society. Therefore, efforts should be made to raise both their level of living and their desire to interact, in addition to the former (Kumari, 2001).

Work, formal, and informal volunteering, and caregiving are all examples of productive activities because they all result in the production of goods and services, whether they are paid for. The premise that self-care, regular household maintenance, social, and recreational activities are valuable to the individual led to the inclusion of these activities in the definition of productive engagement (Nancy Morrow-Howell, 2012). Productive activities are those in which senior citizens can effectively participate and make contributions to their families, communities, and society (Teerawichitchainan, 2019). The creation of goods and services is the primary goal of productive engagement in the context of ageing, and the most debated aspect of this concept is whether or not the activity is rewarded. Although it is unclear whether senior citizens should engage in paid or unpaid employment, it is acknowledged that time spent working, caring for others, volunteering, and doing domestic duties can be both paid and unpaid (Rocío Fernández-Ballesteros, 2011).

After turning sixty, senior citizens become anxious about maintaining their health, their interactions with others, and their economic well-being. How are they going to manage all of this on their meagre income over the length of this extended life cycle? At this point, productive engagement serves as a key tool for achieving these goals. But antiquated social structures and

attitudes towards senior citizens restrict senior citizens from participating in these activities (Nancy Morrow-Howell, 2015).

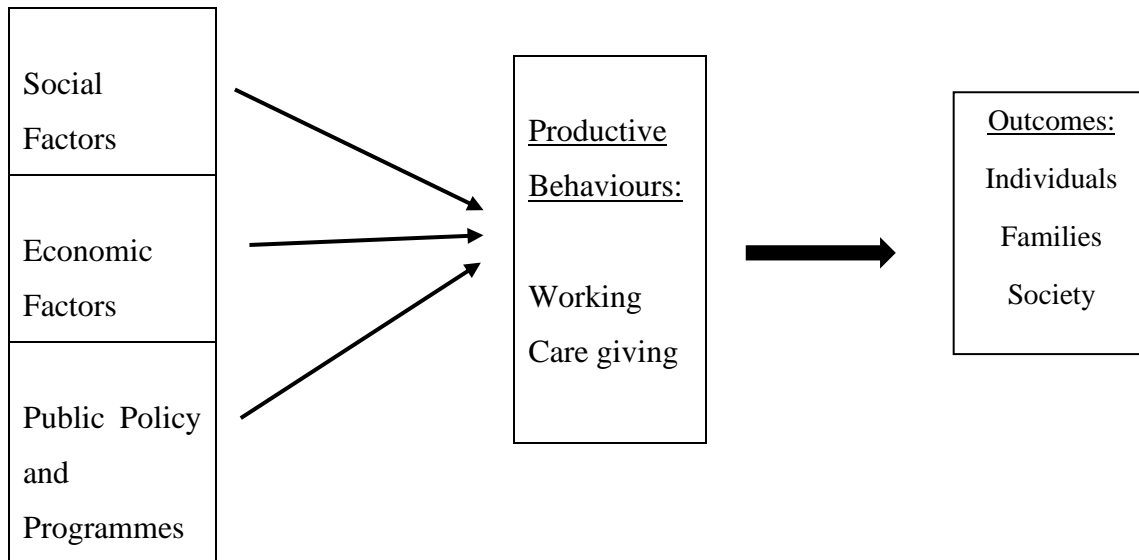
When a person reaches old age, they are confronted with opportunities, choices, and expectations that are very different from those they had in middle age and youth and that heavily rely on presumptions about how ageing would affect talents and wants. The participation of senior citizens in activities and actions that have historically been considered productive frequently declines. They often cut back on both the number of hours they spend in paid employment and in official volunteer capacities. Their labour, service, care-giving, and civic engagement provide significant and underestimated advantages for their own well-being as well as the welfare of their families and communities (James Hinterlong, 2001). We must improve the working environment and employment legislation to allow seniors to work as long as they would like in order to increase their productive participation and maximise the welfare of society, families, and individuals themselves. To achieve this, policies should be strengthened to combat age discrimination, educational curricula should be reorganised to enable people to acquire new knowledge and skills throughout their lifetimes, and senior citizens should be given more opportunities to volunteer and provide care for others to increase their involvement and lessen the stress of working for pay (Nancy Morrow-Howell, 2015). Senior citizens have a strong desire to use their experience, wisdom, compassion, and free time to contribute to worthwhile social welfare initiatives supported by government organisations. They demand that the government establish basic infrastructure, such as training facilities, so that they can freely extend their collective support (Chattopadhyay, 2004).

Despite chronic diseases and other difficulties in later life, senior citizens can focus on wellness rather than illness by continuing to engage in activities and relationships that they enjoy. It is important to recognise the function of later-life learning as being much more than merely instrumental. However, its preserving influence on well-being and health highlights the need for more deliberate and unambiguous policies and practices to encourage lifelong learning among older persons as a crucial aspect of their overall well-being (Miya Narushima, 2018). The human capital of older persons can be utilised through employment, volunteerism, and caregiving for the benefit of families, communities, and society as a whole. Senior citizens themselves may benefit from this active, deliberate engagement. The current study suggests a modified version of an existing conceptual framework called "Productive Engagement in Later Life: A Cross-Cultural Framework" that explains the causes and effects of productive engagement. This strategy provides a more thorough understanding of the feedback loops that exist between individuals, their families, and the community, as well as the effects of possible

programme and policy changes aimed at boosting the productive involvement of senior citizens (C. Halvorsen, 2017).

**Figure 2.2**

**Productive Engagement in Later Life Model**



Source: Altered version of Cross-cultural framework on productive engagement in later life

This framework consists of two portions:

- Antecedents
- Outcomes

In this context, antecedents refer to factors that influence seniors' productive behaviour. In a simple sense, antecedents are the prompting elements for their discretion in work and caregiving. There are three sorts of antecedents:

4. Social Factors
5. Economic factors
6. Public Policy and Programmes

Marital status, level of education, health, age, gender, social support, pensions, etc. were referred to as social factors, and income, wealth, employment, etc. were regarded as economic factors. Their productive engagement behaviour is also influenced by the government's welfare programmes. These factors have an impact on senior citizens' productive behaviour. The activities in which senior citizens were involved is indicated by their productive behaviours. The topic of how seniors maintain and alter their involvement in various activities has received

more attention as a result of the increased life expectancy. Seniors engage in a variety of productive endeavours in their later years, including employment and care-giving (Hinterlong, 2021).

The activities of senior citizens in Kerala's rural areas were divided into two categories. They were:

1. Working
2. Care-giving

### **Working**

According to the Cambridge Dictionary, the word "working means "an activity of doing work. In economics, work means "the activities and labour necessary to the survival of society. Work includes paid work, plantations and cultivation, self-employment businesses, and services.

### **Care-giving**

Care-giving entails providing aid to those who need it due to illness or disability. It also includes providing care for one's spouse as well as for family members and friends (Nancy Morrow-Howell, 2012). Carers are constantly accessible to look after family members by doing tasks like housework, looking after seniors, and caring for children. They refrain from participating in any social, entertainment, or recreational activities (Liu, 2021). An activity or a profession of regularly looking after a child or a sick, elderly, or disabled person" is what care-giving is defined as. The act of routinely watching over a grandchild whose parents are working or outside to provide for the family is considered to be useful behaviour on the part of senior adults. In the present study care-giving outlined as caregiving includes caring children and family, volunteering and household activities and senior citizens who were engaged in these activities were termed as caregivers.

The perceived mental health of senior citizens was positively impacted by consistent, productive physical activity. Seniors who were more actively involved in productive activities, particularly in social and emotional functioning, had better perceptions of their mental health than those who were less active. The flexibility and autonomy that senior citizens experience through creative activities are crucial aspects of later life and may be useful in easing the stress that follows from not being able to live independently. Residents can modify their attitude, emotions, social interaction, and sense of purpose during the transition of life events by regularly engaging in productive activities. The sense of independence, individual progress and development, and social well-being were maintained by means of productive physical activity. Indeed, senior citizens who actively participated in productive activities on a regular basis and



to a rising degree demonstrated an active and healthy lifestyle. In order to help seniors cope with the negative effects of life events, it is crucial to develop an environment that promotes productive engagement. This will help seniors engage in productive activities throughout the ageing process (Lin, 2018).

The participation of the senior citizens in working and caregiving will create an outcome on the well-being of the senior citizens. Given the socio-economic status of senior citizens, there exists a positive relationship between productive engagement and their well-being (Morrow-Howell, 2000). The outcome of productive engagement among senior citizens was studied under three heads. They are

1. Outcome on Individuals (OI)
2. Outcome on Family (OF)
3. Outcome on Society (OS)

Individual, family, and societal outcomes are also referred to as their relative levels of social, familial, and individual well-being. The total well-being was made up of the well-being of the individual in question, the well-being of the family, and the well-being of society. Compared to young people, seniors are quickly displaced from paid employment. The senior citizen's mental health was the subject matter where this employment loss had the most detrimental effects. Losing a job in later life has significant negative effects on the mental, social, and financial health of senior adults. Senior citizens who find jobs again experience greater physical and mental health as well as better economic outcomes (Morrow-Howell, 2000). Whether they are the youngest or the oldest, all members of the family contribute in multiple and varied ways to the development and maintenance of familial life. The social framework of our society is significantly influenced by senior citizens. To create a strong and sustainable future, the country, community, family, and each and every individual need their support and direction. Senior citizens have highly important and vital responsibilities in families, especially. The cultures and environments that most countries have make it possible for senior citizens to take on a variety of responsibilities that greatly assist the family. Senior citizens' engagement in maintaining domestic tasks are their key contribution. Senior citizens often cook, feed children, and transport grandchildren to school. Young grandchildren are likewise interested in their grandparents' traditional stories and want to sleep with them. Senior citizens give all family members a special form of love, affection, and care by managing home tasks. One of the key duties undertaken by senior citizens is guiding family members. They can advise people on moral and spiritual matters, which could be advantageous for the family. Senior citizens have a vast wealth of experience in which they can actively participate and help

their family members emotionally. Even if senior citizens may not be strong physically, their wealth of experience can serve as a guiding light for less experienced family members. Senior citizens have a crucial role to play in helping their family members overcome and control their emotions and family issues when things are dire. The family's senior citizens constantly exhort the family members to be patient, joyful, and unaffected by losses. The senior citizens teach the family members about the best practices for living.

### **2.3 Summary of the Chapter**

The chapter on review of literature reviewed various studies based on the objective set up of the study. The issues of the review of the previous studies concentrated on the various concepts of ageing, implications of ageing, socio-economic status of the senior citizens, economic independence, well-being of the senior citizens and the productive engagement of the senior citizens. The growing elderly population strains the resources and impacts the productive capacity of the economy. The senior citizens are seen negatively since it is assumed that they will always be dependent on others and hence a burden on the society. They face severe economic instability which prevents them from being independent and harms their overall well-being. Instead of being considered a condition apart from the rest of the society, ageing should be seen as a natural aspect of life. Thus, the authorities should acknowledge and facilitate the productive engagement of the senior citizens in economic activities in accordance with their capacities and preferences. The ability of the senior citizens to begin and continue with productive activities after turning 60 has been increasing as the health, education and financial security of the senior citizens have improved. These are seen as human capital because they boost the standard of living and well-being of an individual. Investment in such human capital make the senior citizens economically independent. The Model of Economic Independence and productive Engagement at Old Age explains how economic independence and productive engagement are related. Further, the Productive Engagement in Later Life Model is used to illustrate the determinants of productive engagement of the senior citizens and outcomes of the productive engagement of the senior citizens on their overall well-being.

## **Chapter 3**

# **Overview of the Demographics of the Senior Citizens and History of the Welfare Measures for the Senior Citizens**

### **3.1 Introduction**

This chapter provides an overview of older demography and the history of elderly welfare policies, which was divided into three sections: (1) The global scenario; (2) The Indian scenario; and (3) The Kerala scenario. Before focusing solely on demographics and welfare programmes for the elderly, the history of human activities was also taken into consideration.

### **3.2 History of Pre-historic activities**

The main human occupation during the prehistoric age were hunting, collecting food, and raising and caring of children. Early in 40,000 BC, hunters started to track and kill by organising themselves into small working groups, while others were better suited for gathering food. Because of the needs associated with pregnancy and nursing, women did not hunt then. Simple collecting and hunting were largely eliminated by agricultural production. Some people abandoned agriculture in favour of other activities like tool and pottery manufacturing, textile and metallurgy production, etc. because there was enough food to go around. A period of labour division started from that point onwards. The invention of wheels and the creation of implements from copper and bronze gave rise to villages. As more and more, discoveries paved the way for complex communities, from primitive societies to villages, cities, and metropolitan areas, the nature and organisation of work also altered during this time. New specialised jobs in the fields of commerce, law, medicine, and defence evolved when towns and cities were built. Writing and book keeping developed in response to the specialisations increasing its complexity.

Thus, from a primitive culture to a contemporary society, our society develops gradually. The vocational structure changed as well. The society transitioned from the primary sector to the manufacturing or secondary sector, and subsequently to the service sector. Due to their continuous adherence to traditional practices and resistance to embracing what contemporary technology teaches, senior persons are still more actively involved in the primary sector than the other two sectors.

### **3.3 World Scenario**

The world's population has witnessed several changes over the past few decades, but population ageing is one of the most striking changes. Approximately 5 per cent of the world's population was 65 years of age or older in 1950. In 2019, it was raised to 9 per cent. It was predicted that the proportion of older people in the world's population will reach nearly 16 per cent by the year 2050. The main drivers of population ageing, which might differ between countries, are declining birth rates, rising life expectancy, and migration. The high

fertility rates in the 1950s and 1960s led to the ageing of the population today. Following the Second World War, the population of childbearing age enjoyed significant economic and social advancements, which gave rise to the baby boom. The demographic age structure is breaking down as a result of the declining increase of the child population, which is depicted by the fertility rate's decreasing trend. It demonstrates that compared to the elderly age group, the population growth of children and younger age groups are declining. For men and women, respectively, the average life expectancy in 2010 was 76.7 years and 82.5 years. In the year 2060, it was anticipated that men would further live to 84.6 years and women to 89.1 years. The fact that there are more elderly women than the elderly men worldwide suggests that older women have a longer life expectancy.

The total number of people 65 aged and older in various countries around the world in 2020 is shown in table 2.1. With 23.24 per cent of the global elderly population, China has the highest proportion of people over 65. India has the second-largest elderly population, followed by the US and Japan. Table also shows that older people can be found in Germany, France, the United Kingdom, and the Russian Federation. More than any other nation in the world, China is ageing more quickly. The population of China will consist of 39 per cent people who are 65 years of age or older by the year 2050. It is quite difficult for China to age at such an early age in its development. The one-child policy was implemented by the government in 1979 in an effort to reduce reproduction. The one-child policy, coupled with economic growth, a higher quality of living, and longer life expectancies, are the main factors contributing to China's population ageing. The government implemented the two-child policy in October 2015 in an effort to combat the rising elderly population and declining birth rate. China announced its three-child programme in May 2021 in an additional effort to boost fertility rates.

**Table 3.1**  
**Aged Population of Selected World Nations**

Country	Aged population
Russian Federation	2,23,48,998
Philippines	60,39,724
UAE	1,25,055
Australia	41,64,655
Austria	17,12,460
Bangladesh	86,08,320
Canada	68,80,606
Switzerland	16,49,435
China	16,78,08,567
Germany	1,80,52,747
France	1,39,86,082
UK	1,25,37,902
India	9,07,19,952
Japan	3,57,33,999
Sri Lanka	24,62,130
Nepal	16,98,136
US	5,47,96,260
South Africa	32,67,576
Greece	23,87,895
<b>Total world population</b>	<b>72,21,33,150</b>

Source: United Nation's World Population Prospects 2020

The proportion of the elderly to the overall population of Japan, a super-ageing society, is higher than anywhere else in the world. In the year 2020, Japan has a population that is more than one-third aged over 60. The percentage of the population was 65 years of age or older rose from 4.9 per cent in 1950 to 11.7 per cent in 1990. It grew to 26 per cent in 2014, but child population growth showed a declining tendency at the same time. Since the beginning of the 1990s, there are somewhat more people in Russia who are of working age than those who are younger or older. The fact that the senior population is currently at its highest point and that the younger and middle generation make up a relatively small portion suggests that Russia will

experience a severe labour shortage in the years to come. In Russia, elderly constitute 3.1 per cent of the world's population.

In the United States, the older population increased significantly during the 20th century. From 35 million in 2000, the senior population rose to 49.2 million in 2016. In 2020, it rose much higher to 54.79 million. The United States' population is ageing more quickly than other developed nations because of longer life expectancies and fewer births. Since 1972, only Germany has experienced a long-term natural population reduction as a result of an extremely low birth rate and higher death rates. In 1990s, Germany's ailing economy and ageing population placed a strain on the country's economic system. As a result, the government adopted agenda 2010, a comprehensive plan of still divisive reforms to tighten government spending, which included the labour-market changes known as the Hartz concept.

Ageing has become a hot topic in France, as it has in other nations. Elderly aged 65 and older made up 16 per cent of the population at the start of the twenty-first century. Elderly will make up 20 per cent of the population in 2020. The proportion of France's elderly population will progressively rise over the coming decades, reaching 25 per cent in 2030 and 30 per cent in 2050.

### **3.4 History of United Nation's initiatives for Aged Population**

Global population ageing is mostly caused by decreased fertility and rising longevity, although migration from outside has also changed the age composition of the population in various nations and regions. International migration can reduce the ageing process in nations that have high levels of immigration since most migrants are still young enough to be working. But immigrants who stay in the nation eventually become part of the senior population. Early in the 1970s, the United Nations began addressing concerns related to ageing and underlined the necessity for a worldwide institution.

#### **3.4.1 The International Federation on Ageing**

The International Federation on Ageing (IFA) is a global Non-Governmental Organization (NGO) that was established in 1973 and has its headquarters in Toronto, Canada. It works in the areas of ageing, older people, and age-related issues. According to the IFA's mission statement; it is its goal to "create change for older people around the world by stimulating, collecting, evaluating, and disseminating information on rights, policies, and practices that enhance people's quality of life as they age. IFA was one of the first organisations to propose a global assembly on ageing in the early 1980s. The first international plan of action was produced as a consequence of an assembly that was finally called in 1982.

### **3.4.2 International Federation of Association of the Elderly**

It was founded as a non-profit organization in 1980. The primary objective of this organization is to mobilize senior citizens and their organizations to improve their integration into society. Additionally, it represents senior citizens and elders in important international organizations such as the UN, WHO, UNESCO, Council of Europe, and the European Union.

### **3.4.3 Vienna International Plan of Action on Ageing**

The first World Assembly on Aging was called by the General Assembly in 1982, and it resulted in the 62-point Vienna International Plan of Action on Aging. It demanded concrete action on matters like family, social welfare, financial security and employment, education, and the gathering and analysis of research data. It also asked for action on topics like housing and the environment.

### **3.4.4 Help Age International**

The Help Age Global Network enables millions of older people to live safe, dignified, and healthy lives. It is a diversified community of 158 like-minded organizations and country offices in 86 countries. It is a global NGO that supports older people in asserting their rights, combating prejudice, and overcoming poverty so they can live lives that are honourable, secure, fulfilling, and active. Help Age International was founded in 1983 by organizations from Canada, Columbia, Kenya, India, and the United Kingdom to offer a global network to serve the elderly. The organization focuses on problems that elderly people face globally. "Age Demands Action", the major campaign of Help Age, is a grassroots movement of older and younger activists fighting for a more just and equitable world for older people.

### **3.4.5 Convention on the Rights of Older Persons**

The Convention on the Rights of Older Persons will focus on reaffirming fundamental human rights that are important to senior citizens in an effort to address the fragmented human rights framework for older people. The United Nations Convention on the Rights of the Child, which has enjoyed nearly universal support since 1989, served as the model for the pact.

### **3.4.6 International Day of Older Persons**

The International Day of Older Persons (IDOP), which aims to advance an age inclusive agenda, was established on 1 October by the United Nations General Assembly on 14 December 1990. The 30th anniversary of International Day of Older Persons was in 2020. The International Day of Older Persons in 2020 highlighted the importance of the health care workers in promoting the health of older people, with a special focus on the nursing profession and a primary focus on role of women, who are typically undervalued and undercompensated.



On October 1, 1998, the International Day of Older Persons, the International Year of Older Persons 1999 was declared. Themes of United Nation's International Day of Older Persons (UNIDOP) are:

UNIDOP 2000: "Towards a Society for All Ages"

UNIDOP 2001: "The Challenge for the Second World Assembly on Ageing: Building a Society for All Ages"

UNIDOP 2002: "Meeting the Challenges of Ageing: Where do we go from here?"

UNIDOP 2003: "Mainstreaming Ageing"

UNIDOP 2004: "Older Persons in an Intergenerational Society"

UNIDOP 2005: "Ageing in the New Millennium - Focus on Poverty, Older Women and Development"

UNIDOP 2006: "Improving the Quality of Life for Older Persons: Advancing UN Global Strategies"

UNIDOP 2007: "Addressing the Challenges and Opportunities of Ageing"

UNIDOP 2008: "Rights of Older Persons"

UNIDOP 2009: "Celebrating the 10th Anniversary of the International Year of Older Persons: Towards a Society for All Ages"

UNIDOP 2010: "Older Persons and the Achievement of Millennium Development Goals"

UNIDOP 2011: "Launch of Madrid+10: The Growing Opportunities & Challenges of Global Ageing"

UNIDOP 2012: "Longevity: Shaping the Future"

UNIDOP 2013: "The Future We Want: What Older Persons are Saying"

UNIDOP 2014: "Leaving No One Behind: Promoting a Society for All"

UNIDOP 2015: "Sustainability and Age Inclusiveness in the Urban Environment"

UNIDOP 2016: Take a Stand Against Ageism

UNIDOP 2017: "Stepping into the Future: Tapping the Talents, Contributions and Participation of Older Persons in Society"

UNIDOP 2018: "Celebrating Older Human Rights Champions"

UNIDOP 2019: "The Journey to Age Equality"

UNIDOP 2020: "Pandemics: Do They Change? How We Address Age and Ageing"

UNIDOP 2021: "Digital Equity for All Ages"

UNIDOP 2022: "Resilience of Older Persons in a Changing World"

UNIDOP 2023: "Fulfilling the Promises of the Universal Declaration of Human Rights for Older Persons"

### **3.4.7 United Nation's Principles for Older Persons**

The United Nations Principles for Older Persons, which list 18 entitlements for older people in the areas of independence, participation, care, self-fulfilment, and dignity, were endorsed by the General Assembly in 1991. The International Conference on Aging gathered the next year to follow up on the Plan of Action and adopted a Proclamation on Aging. The UN General Assembly proclaimed 1999 the International Year of Older Persons on the advice of the Conference. Every year on October 1st, people around the world honour older people. According to the United Nations' principles for older people, older members of society should be able to live independently, participate in society, have access to care, and have a right to self-fulfilment and full human dignity. By adopting the principles, the United Nations raised the moral standing of older people's rights relative to those of other organizations and established some deadlines for their execution, such as the 2001 deadline for achieving global targets on issues related to global aging.

### **3.4.8 Madrid International Plan of Action**

In 2002, when the Second World Assembly on Ageing was held in Madrid, It adopted a Political Declaration and the Madrid Worldwide Plan of Action on Aging in an effort to create 21st-century international ageing policy. In order to realize the great potential of ageing in the twenty-first century, the Plan of Action called for changes in attitudes, policies, and practices at all levels. The development of older people, improving health and well-being into old age, and creating enabling and supporting surroundings are given emphasis in its particular suggestions for action. The Madrid International Plan of Action on Aging represents a turning point in how the world tackles the current problem of "creating a society for all ages." It presents a brave new plan of action for addressing the issue of aging in the twenty-first century. It focuses on three main areas: establishing enabling and supporting settings; older adults and development; and improving health and well-being into old age. It is a tool for policymaking, offering advice on how governments, non-governmental organizations, and other stakeholders can change how their society's view, deal with, and take care of their senior citizens.

### **3.4.9 Open-Ended Working Group on Ageing**

On December 21, 2010, the General Assembly formed the working group with resolution 65/182. The working group will examine the current international framework for older people's human rights, identify any gaps, and determine the best way to close them, including by taking into consideration the viability of additional instruments and measures if necessary.

### **3.4.10 World Elder Abuse Awareness Day**

Every year on June 15, there is an awareness day for elder abuse. Following a request from the international network for the prevention of elder abuse, who initially organized the memorial in June 2006, it was formally acknowledged by the United Nations General Assembly in its resolution 66/127 in December 2011. It stands for the one day a year when everyone expresses their opposition to the mistreatment and suffering perpetrated upon some of our older generations.

### **3.4.11 Global Age Watch Index**

The Global Age Watch Index, which was introduced in 2013 and assesses nations based on how well their aging populations are doing, is Help Age's flagship product. It is based on the four domains of income, health, capacities, and enabling environment, which are major enhancers of older people's well-being. In the index, Switzerland comes in top place. Sweden, Germany, Canada, and Norway are in that order, with Norway coming in second.

### **3.4.12 Decade of Healthy Ageing**

The United Nations Decade of Healthy Ageing (2021–2030) is a global initiative that brings together governments, civil society, international organizations, experts, academics, the media, and the private sector to improve the lives of older people, their families, and the communities in which they live. The 2030 Agenda and the Sustainable Development Goals acknowledge that inclusive development is necessary for its realization. One method to assure their inclusiveness and lessen inequities is to empower older people in all facets of development, including encouraging their active engagement in social, economic, and political life.

## **3.5 Indian Scenario**

India currently has about 2.4 per cent of the world's land area, but she must also provide for about 17 per cent of the global people. India had 236 million people at the start of the 20th century, and as of the 2001 Census, there are 1,027 million people living there (Ruddar Datt, 2009). India's population growth rate falls into the fourth phase, which is high with clear indications of slowing down. India's population grew during the first stage of the demographic transition (1891–1921), from 236 million in 1891 to 251 million in 1921. Thus, for the 30 years, there was only a 15 million increase in population, showing a first phase of stagnant growth. India's population increased during the second demographic shift (1921–1951), going from 251 million in 1921 to 361 million in 1951. The population grew by 110 million during these 30 years, and this era is referred to as the stage of steady growth. India's population increased from

361 million in 1951 to 683 million in 1981 over the course of the following 30 years (1951–1981). A record 322 million people have been added to the population at this point. India witnessed a population explosion and a very rapid high growth in the third stage of the demographic transition. Despite having experienced high population growth during the fourth stage of the demographic transition (1981–2011), India exhibits clear indications that the population trend is slowing down. From 683 million in 1981 to 1210 million in 2011, there was a 527 million rise in the total population.

Any person being an Indian citizen, who has reached the age of 60 years or above, is referred to as a "Senior Citizen" in India. In India, there are approximately 104 elderly people who are 60 years of age or older, 53 million of whom are female and 51 million of whom are male, according to the 2011 population survey. According to a study published by the United Nations Population Fund and Help Age India, there will be 173 million elderly people in the world by 2026. The proportion and size of the elderly people are growing over time. The percentage has grown from 5.6 percent in 1961 to 8.6 percent in 2011.

About 71 per cent of the elderly people in India live in rural areas, while 29 per cent does so in urban areas. India as a whole saw an increase in the old-age dependency ratio from 10.9 per cent in 1961 to 14.2 per cent in 2011. In 2011, the percentage for men and women was 14.9 per cent and 13.6 per cent, respectively. 66 per cent of the elderly males and 28 per cent of elderly women in rural areas were employed. The percent of literates among elderly persons increased from 27 per cent in 1991 to 44 per cent in 2011. The literacy rates among the elderly females are 28 per cent which is less than half of the literacy rate among the elderly males, which is 59 per cent.

### **3.5.1 Constitutional Provisions**

Constitution of India, entry 24 in List III of schedule VII deals with “Welfare of labor, including conditions of work, provident funds, liability for workmen’s compensation, invalidity and old age pension and maternity benefits. Further item no.7 of the state list and item 20, 23 and 24 of concurrent list relates to old age pension, social security and social insurance and economic and social planning.

Article 41 of Directive Principles of State Policy has particular relevance to old age social security. According to this article “The state shall, within the limits of its economic capacity and development, make effective provision for securing the right to work to education and to public assistance in case of unemployment, old age, sickness and disablement and in other cases of undeserved want”.

### **3.5.2 Ministry of Social Justice and Empowerment**

In India, the nodal ministry for the welfare of senior citizens is the Ministry of Social Justice and Empowerment. In close collaboration with State Governments, Non-Governmental Organizations, and Civil Society, the Ageing Division of the Social Defense Bureau of the Department of Social Justice and Empowerment develops and implements programs and policies for senior citizens to ensure that they may lead a secure, honorable, and productive life. The senior citizen programs help old age homes, mobile medical units, etc. to ensure their welfare and maintenance, particularly for elderly people who are in need. To guarantee fair treatment for those groups in society who have experienced social injustice, exploitation, discrimination, and injustice.

Next, the major initiatives taken by the government of India for the welfare of the senior citizens were discussed.

### **3.5.3 Help Age India**

Help Age India was founded in 1971 and is a secular non-profit group in India. It works to "promote the welfare and care of older people who are less fortunate in order to better their quality of life. Help Age sees a society in which senior citizens have the right to live active, healthy lives in dignity. It was recently recognized with the UN Population Award 2020, making it the first and only Indian organization to receive this recognition. Help Age India express their worries so they can live safe and respectable lives. It operates a number of programs that support and advocate for the rights of older people. Additionally, it promotes the implementation of laws that are encompassing to older people.

It manages age care services across the nation as well healthcare, and livelihood initiatives and stands strongly for the cause of elders and fights for their rights. In order to help older people live active, dignified, and healthier lives, it seeks to satisfy their needs holistically. Through its Mobile Healthcare Units, which are spread across the nation, it runs one of the largest mobile healthcare programs, providing free healthcare services to needy elders and serving care for the elderly. It also helps the elderly to become self-sufficient and independent by forming Elder-Self-Help Groups, which connects them with government programs and offers them opportunities for employment, runs Elder Help Lines all over the nation, empowers seniors through its digital literacy program, offers senior citizens post-disaster relief & rehabilitation, offers opportunities for active aging, and ensures elderly care.

Help Age fights for elder rights and conducts awareness campaign, interacting with the public and the government to ensure that seniors can obtain their benefits. It maintains close relationships with government agencies, voluntary associations, and the general public. It raises awareness of issues like elder abuse, ageism, the value of digital literacy among seniors, and details on the rights and benefits of senior citizens under various government programs. Help Age India has received recognition for its efforts from numerous institutions and organizations over the years. The awards and recognition were:

1. Recognized by ICAI for Financial Excellence 2010-11
2. Award for Outstanding Contribution to Social Welfare 2011
3. Healthcare Leadership Award 2012
4. Best NGO Award
5. Recognized by ICAI for Financial Excellence 2011-12
6. Help Age receives the Leadership & Excellence Award 2014
7. Bharat Nirman Institutional Award 2014
8. Times Social Impact Award
9. NGO Leadership & Excellence Award 2015
10. Chairman's Challenge Award
11. United Nations Population Award 2020
12. CRISIL VO1A Grading for excellence in operations & financial transparency (2022)

#### **3.5.4 Integrated Programmes for Older Person [IPOP]**

Since its inception in 1992, the Centrally Sponsored Scheme of Integrated Programmes for Older Persons has been working to improve the quality of life for senior citizens by providing them with necessities like shelter, food, healthcare, and recreational opportunities, as well as by promoting healthy and active aging. The program has been made adaptable to accommodate the wide range of requirements of older people, including supporting and enhancing the family, raising awareness of problems affecting older people, popularizing the idea of lifelong preparation for old age, promoting productive ageing, etc.

#### **3.5.5 National Policy on Older Persons [NPOP]**

The National Policy on Older Persons was introduced in January 1999 to emphasize the determination to securing the welfare of older people. NPOP attempts to ensure seniors that their concerns are shared nationally and that they won't be left without protection, attention, or support. The policy calls for state assistance to meet older people's needs for housing, health care, and other necessities as well as for a fair share in development, protection from abuse and

exploitation, and access to services that will enhance their quality of life. The stated objectives were to:

- Incentivize people to save money for their later years.
- Motivate families to care for their elderly relatives.
- Enable and support non-profit institutions to supplement family care.
- Focus on providing care and protection to elderly people who are vulnerable.
- Help in providing adequate health care facilities for the elderly.
- Promote research and training facilities to prepare geriatric caregivers and activist groups.
- Raise consciousness of elderly people to enable them to live productive and independent lives.

Older people can live out their later years with meaning, dignity, and peace with the support of NPOP, which seeks to strengthen their legal standing in society. It offers a comprehensive structure for cross-sector collaboration and cooperation between government and non-governmental organizations as well as within the government. The Policy also acknowledges the importance of the NGO sector in offering accessible, reasonably priced services to support the State's efforts in this area. While recognizing the necessity of encouraging productive aging, the policy also highlights the significance of family in supplying older people with crucial non-formal social security.

### **3.5.6 National Council for Older Persons [NCOP]**

A National Council for Older Persons was established in 1999 in pursuance of NPOP to supervise policy implementation. The minister for social justice and empowerment served as the council's chairman. The government's top advisory group is responsible for providing guidance on the creation and execution of policies and programs for the elderly. The council was reconstituted in 2005 with representatives from the federal and state governments, as well as from NGOs, community organizations, associations for retired people, and professionals in the fields of law, social welfare, and health. Its objectives were to represent the views of older people, to advise the government on policies and programs, to provide feedback on the NPOP and programs, to provide a nodal print at the national level resolving individual injustices and to provide lobby for concessions, rebates, and discounts for older persons both with the government and corporate sector, to suggest initiatives to make elderly people active and productive and to improve the quality of life.

### **3.5.7 Indira Gandhi National Old Age Pension Scheme [IGNOAPS]**

All people 60 years of age and older who live in households that fall below the poverty level are covered by the Indira Gandhi National Old Age Pension Scheme. The certification that all qualified individuals have received IGNOAPS coverage must be provided by the states and the Union Territories. This program serves older people who have little no financial support from their own sources of income. Each recipient receives a monthly contribution from the federal government of Rupees 200. The implementation of the Indira Gandhi National Old Age Pension, which was handled by the Revenue Department of State Government, has been transferred to Local Self Govt Institutions as a component of decentralization through the Indian Constitutional Amendment Act 1993. Currently, the local government institutions are in charge of collecting, processing, granting, and dispersing pension applications. Initially, one of the three components of the destitute income was the National Old Age Pension. Widow Income and Physically Handicapped Pension are the other two. According to the aforementioned guideline, the Old Age Pension became the National Old Age Pension (NOAP) and began receiving financial support from the federal government. According to Rule 8 of the Pension Regulations, District Collector permission is required. Even though there is an older son who neglected to care for his parents, are still qualified to receive the annuity.

### **3.5.8 Annapurna**

All other elderly people who live below the poverty line and are not covered under the IGNOAPS are supported by the Annapurna scheme. For the elderly who are in need, 10 kilograms of rice or wheat are given. By providing food security, the Annapurna Scheme seeks to meet the needs of Senior Citizens who, despite being eligible, have not benefited from the National Old Age Pension Scheme (NOAPS). The Annapurna Scheme beneficiary will receive 10 kg of food grains each month "free of charge". In 2000–2001, the Ministry of Rural Development launched the initiative. This program is a component of the National Social Assistance Program, which was established in 1995 to assist widows, bereaved families, the elderly, the disabled, and widowers.

The implementation of this plan is the responsibility of the State Departments of Food & Civil Supplies (F&CS) at the state level, and the District Collector/Chief Executive Officer and Zila Panchayat at the district level. The Gram Panchayats are in charge of disseminating information about how to qualify for benefits under the Scheme. The essential features of the Annapurnna Scheme Were:



- It is a centrally sponsored scheme.
- As part of this program, 10 kg of food grains are distributed each month to elderly (those over 65) and indigent people who are poor and have no income.
- The target, 52215, was set by the Indian government to account for 20 per cent of people who are entitled to the National Old Age Pension but do not receive it for a variety of reasons.
- The food grains are provided to the State Governments at BPL rates in accordance with the regulations.
- The Gram Panchayat issues the program's beneficiaries with their entitlement cards after the Gram Sabha selects the recipients.

### **3.5.9 Health of Privileged Elder**

A new Mediclaim Policy for senior people has been released by The Oriental Insurance Company Ltd, a non-life insurance company in the public sector. The Health of Privileged Elder (HOPE) Program was introduced in New Delhi. Ramadoss stated that all Indian citizens over 60 are covered under the program. The insurance covers hospitalization brought on by one of ten specified diseases and accidents. This indicates that the preponderance of illnesses to which senior citizens are vulnerable are still covered by the policy. You can choose an amount insured of between Rs. One lakh and Rs. 5 lakhs. The premium ranges from Rs. 4,500 to Rs. 29,000 and is dependent on forty-seven age bands and the chosen sum insured. New Participants must pay an additional 10 per cent on the above. The insured must make a mandatory 20 per cent co-pay of the admissible claim amount. 10 to 50 per cent additional optional co-pay will have a proportionate impact on the rate. Discount of up to 20 per cent is incorporated into premiums for claim-free years. The policy allows for cashless payments through Third Party Administrator (TPA) up to Rs. 1 lakh.

### **3.5.10 The Maintenance and Welfare of Parents and Senior Citizens Act, 2007**

In order to guarantee need-based maintenance for parents and senior citizens as well as their welfare, the Maintenance and Welfare of Parents and Senior Citizens Act was passed in December 2007. Any Indian citizen who has attained the age of 60 or more is referred to as a senior citizen, per this Act. The "Ministry of Social Justice and Empowerment" is authorised for the Act. The act provides for:

- Establishing Old Age Homes for Senior Citizens Who Are Indigent
- Adequate Medical Facilities and Security for Senior Citizens

- Suspension or cancellation of the Transfer of Property by Senior Citizens in Case of neglect by Relatives
- Penal Provision for Abandonment of Senior Citizens
- The obligation and legality of children's and relative's maintenance of parents and senior citizens through tribunals

The Maintenance and Welfare of Parents and Senior Citizens Act of 2007 were passed with the intention of promoting the welfare, security, and safety of seniors. It requires that parents be supported by their children and that the government provides old age homes and medical facilities for the senior citizens.

### **3.5.11 Reverse Mortgage Schemes**

In order to help senior people, the Ministry of Finance introduced the program in 2007. Their residential property may be mortgaged in exchange for a loan equal to 60 per cent of the home's real value, with a minimum tenure of 10 years and a maximum tenure of 15 years.

### **3.5.12 Rashtriya Swasthya Bima Yojana (RSBY)**

Under the Unorganized Workers' Social Security Act of 2008, the Ministry of Labour & Employment has been implementing the RSBY, a centrally funded program that offers health insurance coverage to BPL families and 11 other groups of unorganized workers. In 2015, the Program was moved to the Ministry of Health and Family Welfare. Each household enrolled in the program is eligible for hospitalization benefits in government and accredited private hospitals worth up to Rs 30,000 per year. The recipient family also receives transportation costs of Rs. 100 per visit, up to a limit of Rs. 1000 per year. Currently 12 States are implementing RSBY in India.

### **3.5.13 National Programme for the Health Care of Elderly (NPHCE)**

The program was launched in 2010. It focuses on both preventive and promotional care for the preservation of general health. It was started to address the health problems of senior citizens. It offers dedicated health facilities which may be free and highly subsidized. The main goals are to:

- Provide elderly people preventive, curative, and rehabilitative services at different levels of the nation's health centers.
- Strengthen the referral system.
- Develop specialist manpower.
- Encourage exploration of illnesses associated with aging.

The major initiatives of the programme were:

- To create a geriatrics section in each of the 8 regional geriatrics centers currently in operation.
- Improving senior healthcare facilities at various levels in 100 specific locations across 21 States of the nation.
- Regional institutions to offer technical assistance to geriatric units at district hospitals, while district hospitals will oversee and coordinate the activities at CHC, PHC, and sub centers.
- The program has provided coverage for 104 areas across 24 States/UTs and 8 Regional Geriatric Centers. The Program has so far encompassed 930 CHCs, 4439 PHCs, and 28767 Sub centers.

### **3.5.14 Dr. V. Mohini Giri Commission**

In order to assess the current status of different problems affecting senior citizens and to draft a new National Policy on Older Persons, the Ministry established a review committee in the year 2010 with Dr. V Mohini Giri as its chairman. The Indian Ministry of Social Justice and Empowerment received the final draft of the National Policy on Senior Citizens on February 14, 2011. On March 30, 2011, the commission presented the draft National Policy on Senior Citizens and recommended a new National Policy for Senior Citizens. The committee suggested providing lifelong healthcare services for free, along the lines of Central Government Health Services, to recipients of national honors such as Padma awards, gallantry awards in the armed forces, or national recognition for arts and culture. The Union Ministry of Health, which is trying to establish a National Programme for Healthcare of Elderly, was also sent a draft of the document.

An agency and a national council for senior citizens must be established, according to the National Policy on Senior Citizens, 2011. The policy encourages employment in income-generating activities after retirement. States will be in charge of establishing geriatric homes with assisted living amenities in each district. The policy states old-age pension scheme for those living below the poverty line would be expanded to encompass all senior citizens. Monthly pension rates will be raised to Rs 1000 per person and reevaluated periodically. It was also proposed to include the elderly in the National Old Age Assistance program, which would offer extra grants in the event of disability or the death of an adult child.

### **3.5.15 Inter-Ministerial Committee**

An Inter-Ministerial Committee on Older Persons comprising twenty-two Ministries/ Departments, and headed by the Secretary is another coordination mechanism for implementation of the NPOP. Action on ageing issues by various Ministries/ Departments concerned is considered from time to time by the Committee.

List of Ministries/Departments of the Inter-Ministerial Committee implementing National Policies on Older Persons are: • Ministry of Social Justice and Empowerment • Ministry of Health and Family Welfare • Ministry of Finance • Ministry of Rural Development and Employment • Ministry of Urban Affairs and Employment • Ministry of Human Resource Development • Ministry of Labour • Ministry of Personnel, Public Grievances and Pensions • Ministry of Law Justice and Company Affairs • Ministry of Home Affairs • Ministry of Information and Broadcasting • Ministry of Communication • Ministry of Railways • Ministry of Agriculture • Ministry of Surface Transport • Ministry of Civil Aviation • Ministry of Petroleum and Natural Gas • Ministry of Food and Consumer Affairs • Ministry of External Affairs

### **3.5.16 Vayoshreshattha Samman**

The Vayoshreshattha Samman program honors seniors who have made outstanding achievements to their disciplines and recognizes their effort. Since it was elevated to the National Award in 2013, prizes have been given out in thirteen different categories. 1) Institutions: Aging-related research; service delivery; district panchayaths; urban local authorities; states implementing the Maintenance and Welfare of Parents and Senior Citizens Act; private sector organizations promoting senior citizen welfare; public sector organizations promoting senior citizen welfare. 2) Individual: 100 years old; legendary mother; lifetime accomplishments; artistic creativity; sports and adventure; bravery and courage

### **3.5.17 Training of Manpower for Care of Senior Citizens**

- The National Institute of Social Defense (NISD) has established an Old Age Care Division that is involved in the formulation and development of projects and programs in the area of old age care.
- Project Nice undertaken by NISD also includes 3-month training programs, 6-month certificate programs, and postgraduate diploma programs on old age care issues. Additionally, the students receive training in dealing with ethical concerns in geriatric care and employing useful tools to handle the issues of the elderly.

### **3.5.18 Atal Pension Yojana Scheme**

In the budget for the fiscal year 2015–16, the government declared the implementation of universal social security programs in the insurance and pension sectors for all Indians, particularly the underprivileged and the poor. In order to provide a defined annuity based on contribution and period, the government has introduced the Atal Pension Yojana (APY). The National Pension System (NPS), which is run by the Pension Fund Regulation and Development Authority, will be targeted by the APY for all members of the unorganized sector (PFRDA). Under the terms of the APY, subscribers would receive a fixed minimum pension at age 60 of Rs. 1000, Rs. 2000, Rs. 3000, Rs. 4000, or Rs. 5000 per month, depending on their contributions, which would be based on the age at which they joined the APY. The age requirement to join APY is 18 years old, with a 40-year limit. Therefore, any subscriber's minimum time of contribution under the APY would be 20 years or longer. The government would ensure the advantage of a fixed minimum pension. The APY would be implemented on June 1st, 2015.

### **3.5.19 Senior Citizen Welfare Fund**

In accordance with the Budget Announcement, 2015–16, this welfare fund has been established to be used for such programs for promoting senior citizen's financial security, health care and nutrition, welfare of elderly widows, programs relating to old age homes, short stay homes, and senior citizen day care, etc., for the promotion of senior citizen's welfare. The Ministry of Social Justice and Development is responsible for overseeing the administration of this program. The Fund consists of the unclaimed funds transferred by every entity holding such funds in the Central Government's Small Savings and other Savings Schemes, including Post Office Savings Accounts and Post Office Recurring Deposit Accounts, etc. The Ministry of Social Justice and Empowerment serves as the Nodal Ministry for the administration of the Fund, and it is managed by an Inter-Ministerial Committee made up of the Department of Financial Services, the Ministries of Health and Family Welfare, Rural Development, Housing and Urban Affairs, and Labour and Employment.

### **3.5.20 Senior Citizen Health Insurance Scheme (SCHIS)**

This program, which has been implemented since 2016, provides insurance coverage for senior citizens to the current RSBY Scheme. In addition to the RSBY's ₹ 30,000 health insurance coverage, SCHIS offers senior citizens ₹ 30,000 health insurance cover. If there are numerous senior citizens living in the same RSBY-enrolled family, the additional cover will be in multiples of Rs. 30,000 per senior citizen. In addition to the 1516 packages insured by

RSBY, 211 treatment packages are covered by SCHIS. SCHIS is currently being implemented in eight states: Himachal Pradesh, Gujarat, Karnataka, Kerala, Meghalaya, Nagaland, Tripura, and West Bengal. According to the information that is currently accessible, SCHIS covers about 18 lakh families with senior citizens.

### **3.5.21 Longitudinal Ageing Study in India (LASI) Project**

Ministry of Health and Family Welfare launched Longitudinal Ageing Study in India (LASI) Project in 2016 to assess the health, economic and social status of the elderly aged 45 to 60. With a sample size of 61,000, this study will be one of the world's most extensive studies on aging. The International Institute for Population Sciences (IIPS), an independent organisation under the Ministry of Health and Family Welfare, is in authority of the LASI project. The National Institutes of Health (NIH)/National Institute of Ageing (NIA), USA, and the Ministry of Health & Family Welfare will provide funding support for LASI in India, which will be carried out by IIPS in association with the Harvard School of Public Health and the Rand Corporation. A total of Rs. 29.20 crore has been made available so far under the initiative.

### **3.5.22 Pradhan Mantri Vaya Vandana Scheme**

This scheme meant for seniors that have reached at least 60 years old. The Ministry of Finance is in charge of the administration of the "Pradhan Mantri Vaya Vandana Yojana" (PMVVY). The program seeks to provide social security during old age as well as to protect elderly people of 60 years of age and older from a future decline in their interest income due to the unpredictable market condition. Through the Life Insurance Company (LIC) of India, the program is being carried out. The program offers a guaranteed return of 8% annually, given once a month for ten years. The Government of India will cover the differential return, or the difference between the return produced by LIC and the guaranteed return of 8% per year, as a subsidy on an annual basis.

The scheme was available for subscription from May 4, 2017, to May 3, 2018, a one-year time. In accordance with the plan, the minimum purchase price per family was Rs. 1.5 lakh, with a minimum pension of Rs. 1,000 per month, and the highest purchase price per family was Rs. 7.5 lakh, with a maximum pension of Rs. 5,000 per month. The Pradhan Mantri Vaya Vandana Yojana has been extended through March 31, 2020, in accordance with Budget Announcement 2018–19, and the highest purchase price cap of Rs. 7.5 lakh per family under the program has been increased to Rs. 15 lakh per senior citizen. On June 30, 2018, 2,82,155 members were receiving benefits under PMVVY and made up of a total of Rs. 17,704,65 crores.

### **3.5.23 Varishta Mediclaim Policy**

The needs of our senior citizens have been taken into consideration during the development of this policy. If chosen, Section II also includes costs for the treatment of critical illnesses. Section I covers hospitalization and domiciliary hospitalization expenditures. Urgent illnesses include the following conditions: major organ transplants, cancer, coronary artery surgery, renal failure, stroke, multiple sclerosis, paralysis, and blindness at an additional cost. People who choose not to purchase critical illness insurance are still entitled to hospitalization and domiciliary hospitalization expenses coverage for the diseases listed above that are classified as critical illnesses, but only up to the limit of the Sum Insured under Section I, i.e., under hospitalization and domiciliary hospitalization 46 Expenses. Claims for these diseases will either be reimbursed or treated as cashless hospitalization. Per individual, the Sum Insured is fixed. The insured amounts under the Hospitalization & Domiciliary Hospitalization Plan are Rs. 1,00,000 and Rs. 2,00,000, respectively.

The age range for new applicants to the scheme is 60 to 80 years old. The age limit will be raised to 90 years for renewal, in which case the premium for the 76 to 80-year-old age category will be increased by 10% for those who reach 85 and by 20% for those who reach 90. If the insured has been continuously protected by a health insurance policy from National Insurance Company or another insurance company for the previous three years, no medical examination is necessary. Other people are required to pay for their own medical examinations, including those for blood/urine sugar, blood pressure, echocardiography, and eye tests, including retinoscopy.

### **3.5.24 Rastriya Vayoshri Yojana**

For older people over 60 who fall under the BPL category, this yojana provides physical aids and assisted living equipment. The Central Government provides all of the funding for this central sector program.

### **3.5.25 Varishta Pension Bima Yojana**

For senior citizens over 60, the Ministry of Finance has introduced the Varishta Pension Bima Yojana. The right to operate this program belongs to the LIC of India. It provides assured pensions with a fixed interest rate of 8% a year for a maximum of ten years.

### **3.5.26 Pradhan Mantri Jan Arogya Yojana**

The launch of Ayushman Bharat PMJAY in 2018–19, which will cover over 10 crore poor and vulnerable families (roughly 50 crore beneficiaries) and provide coverage up to Rs. 5 lakh per family per year for secondary and tertiary hospitalization, was approved by the

Ministry of Health and Family Welfare of the Government of India in March 2018. The inauguration of PMJAY took place on September 23, 2018. The PMJAY will incorporate the RSBY and SCHIS once it is launched. The PMJAY provides benefits to all enrolled beneficiary households of the RSBY and SCHIS.

### **3.5.27 Medical facilities for Senior Citizens**

The following services have been made available to senior citizens by the Ministry of AYUSH:

- Free consultations and yoga therapy under yoga and naturopathy.
- In various government hospitals in Delhi, Haryana, Tripura, Kerala, Madhya Pradesh, Andhra Pradesh, and Jharkhand, OPDs are offered.
- Organizations in different states of the country are providing free yoga instruction at 50 Yoga Parks.
- There are also additional programs like the Health Promotion Program, Individual Yoga Therapy Classes, and Weekend Yoga Training.

### **3.5.28 Insurance Coverage**

Up to 75-year-olds are covered by life insurance by a few public sector organizations. The insurance plans for older people revealed so far include Jeevan Dhara (18-65), Jeevan Akshay (30-75), Jeevan Suraksha (25-60), and Senior Citizen Unit Plan (18-54 years). In addition, health insurance schemes, covering Mediclaim policy and other individual and group Mediclaim policies are also provided by nationalized as well as private insurance companies. The government is moving to impose a uniform policy on all insurance providers with respect to the senior citizen entry age.

### **3.5.29 Facilities at Railway Stations**

A joint quota of six lower berths per coach in sleeper class and three lower berths per coach in the AC-3 tier and AC-2 tier classes have been reserved for senior citizens by the Ministry of Railways. In all classes of the Mail/Express/Rajdhani/Shatabdi/Jan Shatabdi/Duronto group of trains, senior citizens who are male and at least 58 years old are eligible for a 40% discount on the ticket fare, while senior citizens who are female are eligible for a 50% discount. If the average demand per shift exceeds 120 tickets, Indian Railways also provides the option of separate counters for senior citizens to purchase, book, or cancel tickets at different Passenger Reservation System (PRS) centers. Wheelchairs for use of older persons are provided at all junctions, District Headquarters and other important stations for the convenience of needy persons including the older persons. This facility is currently supplied



and properly escorted by coolies on payment basis. It has been suggested that Zonal Railways offer free battery-operated cars to elderly and disabled passengers. If a lower berth becomes accessible after a train has left the station, the conductor or TTE is permitted to give it to an elderly or disabled passenger who has been allocated a middle or upper berth upon request.

### **3.5.30 Facilities by the Ministry of Home Affairs**

As "Police" and "Public order" are state subjects, the Ministry of Home Affairs, Government of India, issued comprehensive advisories to all State Governments/UTs, who are primarily responsible for prevention, detection, registration, investigation, and prosecution of crime, including crime against senior citizens. It has advised the States/UTs to take immediate action to ensure safety and security and to end all forms of neglect, abuse, and violence against senior citizens through initiatives like senior citizen identification, training police officers on older person safety and security, regular visits from the beat staff, the formation of toll-free senior citizen help lines, the establishment of senior citizen security cells, the verification of domestic helps, etc.

### **3.5.31 Facilities by the Ministry of Personnel, Public Grievances and Pensions**

The Ministry of Personnel, Public Grievances and Pensions' website for pensioners provides information on the pension process, retirement benefits, pension rules, pension plans, pension process map and timeline, circular and forms, pension and gratuity calculator, commutation table, RBI guidelines for operating bank accounts, guidelines for pensioners, grievance registration for pensioners, nodal officers for grievance registration, formats, pension cells, and related services.

### **3.5.32 Facilities by the Department of Telecommunications**

Senior citizens are permitted to register telephone connections under the N-OYT Special Category, and their faults or complaints are given precedence by placing them in the senior citizens category with the VIP flag.

### **3.5.33 Anubhav**

Anubhav is a venue for outgoing employees to spotlight remarkable accomplishments achieved over the time they were working. The chance to share accomplishments is provided, and it also aids in building a useful database for the future. This facility is initially only made available to retiring Central government employees. An online facility to submit their outstanding accomplishments may be made available to employees who will be retiring in the next six months.

### **3.5.34 Sankalp**

The Department of Pension & Pensioners' Welfare has launched an initiative called Sankalp to give pensioners a place to access opportunities for beneficial social interventions. Additionally, it makes it easier for civil society organizations to choose volunteers with the right skills and experience from the pool that is available. The self-certified copy of the Pension Payment Order (PPO) may, however, be sent by All India Services (AIS) Pensioners via the Nodal Officer of the relevant State.

## **3.6 Kerala Scenario**

Kerala ages more quickly than the rest of India. Its population aged 60 and over stands for 6.1 per cent of the population as a whole in 1961, which was just under the national average of 5.6 per cent. Since 1980, Kerala has surpassed the other states. By 2011, nearly 13 per cent of the total of the population had reached retirement age. The senior population is growing significantly, especially among those who are 70 or older. In the aging population, women outnumber males. Overall, 16 per cent of Kerala's senior workers are employed right now. Work participation rate of for elderly men and elderly women are 26 per cent and 8 per cent, respectively. Despite the fact that work participation declines with age, 8 per cent of elderly men and 3 per cent of elderly women are presently employed, even after the age of 80.

Having analysed the old age demography of Kerala, various welfare measures taken by the government of Kerala also explicated. Kerala is taking the lead in putting social security schemes for senior citizens into action. Through a network of institutions, the state's Social Justice Department implements welfare programs and services for the underprivileged and those in need. The elderly make up a significant percentage of most of these programs.

### **3.6.1 Old Age Pension**

On 1 November 1960, the old age pension program was first implemented. After Kerala's formation, this is the first social assistance program that has been introduced. The program's goal is to help elderly people who are in need of money, provided that they meet the requirements for eligibility.

### **3.6.2 Agricultural Workers Pension Scheme**

It was established on April 1st, 1980, and is Kerala's second notable senior citizens' social welfare program. An agricultural worker must be 60 years of age or older and have a yearly income of less than 1500 Rupees is eligible for the pension. Physically disabled agricultural workers are also qualified for pension benefits.

### **3.6.3 Old Age Pension to Craftsmen**

The Department of Industries initiated old age pension to craftsman in 1979. A beneficiary must meet the following requirements in order to be eligible: they must be over 60, have a yearly income of not more than Rs. 1200, have lived in Kerala for at least 10 years, have never received financial aid, and be proficient in traditional handicrafts. In the case of people with disabilities, the age restriction will be eased.

### **3.6.4 Implementation of Maintenance and Welfare of Parents and Senior Citizens Act 2007**

The States and Union Territories had adopted the Maintenance and welfare of Parents and Senior Citizens Act, 2007 on 24<sup>th</sup> September 2008. The Kerala Maintenance and Welfare of Parents and Senior Citizens Regulations, 2009, were established in 2009 by the Kerala government to carry out the authority granted by Section 32 of the Maintenance and Welfare of Parents and Senior Citizens Act, 2007. According to Section 7 of the Act, the Kerala government established Maintenance Tribunals for each sub division and designated Revenue Divisional Officers as Presiding Officers. For each district, the government established an appellate tribunal and assigned collectors as the presiding officers. The district social justice officers were designated as maintenance officers. In accordance with the aforementioned orders, there are currently 14 Appellate Tribunals, 27 Maintenance Tribunals, and 14 Maintenance Officers employed by the State.

The Social Justice Department of Kerala implemented a new Project by appointing Technical Assistants on a contract basis to help the Revenue Divisional Officers and for the coordination of services provided by the concerned Ministries or Departments dealing with law, home affairs, health, and welfare, to address the issues relating to the welfare of the senior citizens, and periodical review of the same, under Section 21(iii) of the Law. The Technical Assistants provide support to the Tribunal by helping to register cases, responding to questions about cases, and setting up hearing and adalath processes. Additionally, the Technical Assistants host awareness campaigns to inform the public about the Law and regulations with the financial assistance of the Social Justice Department.

### **3.6.5 Janamaithri Suraksha Project**

In March 2008, the Janamaithri Suraksha Project was introduced by the Kerala government in 20 particular police stations. The Janamaithri Suraksha Project is currently being carried out in 248 selected police stations across all districts. The program is a

prestigious community policing initiative of the Kerala government that seeks to give the general public opportunities to work with the police to fight crime and enhance neighborhood security. Kerala culture has been significantly impacted by the Project. In all of the state's areas under the jurisdiction of the police department, a Senior Citizens Cell has been established. This cell works with the local police to coordinate the safety and security of senior citizens, monitors the registered senior citizens by regularly speaking with them on the phone, arranges field trips for senior citizens to give them a greater sense of security and confidence, regularly advises the local police about the safety concerns of the senior citizens living in their jurisdiction, and assists the senior citizens in need.

### **3.6.6 Vayomithram Project**

The Vayomithram project, which offers health care and assistance to seniors over 65 living in Corporation/Municipal Areas in the state, is being carried out by the Kerala Social Security Mission (KSSM). The Vayomithram initiative primarily offers elderly people free medicines through mobile clinics, palliative care, and help desks. The initiative was carried out as a collaborative effort with the local Self Government Department. The initiative began its operations in the Kollam and Trivandrum Corporation during the 2010–2011 fiscal year and expanded to 12 district headquarters during the 2011–2012 fiscal year. In order to continue the initiative, 9 new projects were started in the 2012–2013 fiscal year and 2 new projects in the 2013–2014 fiscal year. In addition to the basic support given by the municipality, KSSM has planned to launch 9 project proposals in the current fiscal year. Municipalities in Marad (Ernakulam), Manjeri, Kottakkal (Malappuram), Vadakara (Calicut), and Chalakkudy (Thrissur) have shown interest in the initiative.

The other services offered under Vayomithram Project were:

- In the project region, special medical camps are conducted for the elderly.
- Special entertainment events like Sallapam and Snehayathra were organized primarily for vayomithram recipients and the elderly poor.
- Funding programs were carried out with the assistance of local institutions and NGOs.
- Conducted special day programs relative to health and welfare in the region.
- Vayomithram coordinators have been offering counseling services with the help of physicians from mobile hospitals.
- Vayomithram's active involvement in local social problems affecting the elderly.

### **3.6.7 Snehapoorvam**

Snehapoorvam Project grants money to people who are orphans or who have lost one parent but are still supported by their relatives. The financial support for these children's schooling ranges from Rs. 300 per month (Class 1 to 5) to Rs. 1000 per month for elderly grandparents who are often the caregivers (graduate level). Approximately 1507 children receive assistance in 2012–13, costing Rs. 50 lakhs.

### **3.6.8 Vayo Amrutham Project**

The Vayo Amrutham Project has been introduced in Government-run Old Age Homes by the Social Justice Department with the help of the Indian System of Medicine Department to treat inmates who have health issues. Diabetes, asthma, skin conditions, arthritis, eye, and ear conditions, etc. are the majority of the cases that are addressed as health ailments. Counseling and palliative care for the disabled were also included in health care. Inmates of all Government Old Age Homes operating under the Social Justice Department are receiving ayurvedic therapy as part of this program. The assistance of a medical officer and an attender will help the inmate.

### **3.6.9 Age Friendly Panchayath**

The Age Friendly Panchayath is a new and implemented by Social Justice Department. The program's goal is to transform all of the state's panchayats into age-friendly ones in order to guarantee the senior population's quality of life, involvement, and good health.

### **3.6.10 Mandahasam**

Mandahasam is a new initiative of Kerala State Government that offers senior citizens free dental care. The program attempts to lessen the nutritional, physical, and mental issues that elderly people experience after losing their teeth. A list of dental colleges and treatment centers where the beneficiaries could receive care would be compiled by the government. By establishing standards and norms, it would also guarantee the quality of artificial teeth and excellent care. Seniors who fall into the BPL category are qualified for the benefit under this program, and the beneficiary is entitled to a maximum of 5,000 rupees in financial help for dental care.

### **3.6.11 SayamPrabha Home**

"Sayamprabha Home" initiative in collaboration with LSGD institutions provides day care facilities to the senior citizens. These day care facilities will offer the most essential services and assist the elderly when they are in need, on a barrier-free platform. These daycare centers give older citizens a chance to socialize with people of a similar age, and they can also offer

comfort to those who feel lonely during the day. 70 such daycare facilities have been run by LSGD institutions as part of the initial phase, and they will offer senior citizens counseling programs and yoga meditation classes. The services may be made available to each Sayamprabha Home's minimum of 20 recipients. The important services provided through Sayamprabha Homes were:

- Foster opportunities for senior citizens to connect socially.
- The centres offer a broad variety of activities to keep the elderly occupied with activities designed to meet physical, emotional, and social needs.
- Provide yoga training classes.
- Involve them in exercises, meditation, psychotherapy, medical exams, and other activities.
- Providing food to senior citizens who are malnourished at least twice a day.

### **3.6.12 Vayomadhuram**

The Social Justice Department of the Government of Kerala has launched a new program called "Vayomadhuram" that offers free glucometers to elderly diabetes patients who fall under the BPL category in an effort to create an old age-friendly state. In accordance with this plan, the department will give glucometers to 1000 elderly diabetes patients in each area.

### **3.6.13 Grand Care Project**

The Social Justice Department has launched the "Grand Care project" as a novel initiative in response to the government's attempts to control the Corona virus in order to address the problems faced by aged persons living in nursing homes and those who are in reverse quarantine due to co morbid conditions. Senior citizens who are quarantined in their homes will experience emotional, bodily, and mental stress.

### **3.6.14 Vayokshema Call Centre**

For the purpose of addressing and resolving the problems of senior citizens, the Social Justice Department established Vayokshema Call Centers in each district, which are under the supervision of the District Senior Citizen Cell. The help desk would be open every day from six in the morning until ten at night.

### **3.6.15 Second Innings Home Project**

The Second Innings Home initiative seeks to transform existing government-run old age home into a multi-service model home. The government-run old age home in Kannur was developed as the pilot second innings home as part of the trial project. The project's objective

is to improve senior citizens' quality of life by giving them access to necessities like food, shelter, medical care and entertainment. The objectives are:

- Create multi-service community age care centers to offer services such as health care, education, legal advice, and psycho-social support to the senior citizens and their caregivers.
- To organize public information campaigns and psychosocial activities to prevent institutionalization of the elderly and foster a supportive environment.
- To support caregivers and their families

### **3.6.16 Vayoraksha**

The Social Justice Department of the Kerala government has launched a number of significant initiatives with a primary emphasis on the welfare, protection, and care of senior citizens in the State. It's also crucial to keep in mind that providing seniors with social security is a fundamental human right rather than an act of kindness. Senior people deal with a variety of issues in society, such as discrimination, exploitation, neglect, and abuse. Additionally, they experience physical, mental, and socioeconomic distress. They require special care and attention during emergencies because they are the most vulnerable group of the community. A comprehensive project called "Vayoraksha" has been developed by the Department of Social Justice to address the complaints and problems that Senior Citizens encounter in times of crisis.

The principal objective of this program is

- To offer aid and support to the elderly people who are in need when a crisis arises.
- Offer old people who are in need of urgent medical attention.
- Make sure caregivers are available for elderly people who are confined to beds.
- Offer therapy to those who require assistance and safety.
- Provide senior citizens with legal assistance.
- Provide senior citizens with a comfortable atmosphere while also looking out for their physical and mental health.

#### **Utilisation of Fund**

- 1) This program will serve senior citizens who fall under the BPL category.
- 2) The scheme fund may be utilized to meet the unique requirements of senior citizens during medical crises, surgeries, COVID-19 treatment, rehabilitation, ambulance assistance, service of caretakers, and purchase of assistive devices.
- 3) The fund can be used to examine, treat, and institutionalize elderly people who are homeless, wandering, or have recently lost a loved one.

- 4) Senior citizens who are the captives of natural disasters can also receive emergency food and medical care.
- 5) Giving senior citizens who suffered abuse, accidents, or life-threatening burns immediate medical assistance.
- 6) The fund may be used to implement appropriate corrective actions to ensure care and protection in the event that a senior citizen's life or property is in threat.
- 7) First aid can be provided using the services of private clinics. However, if professional medical care is necessary, assistance can be obtained from a government facility.

The District Social Justice Supervisor will have the authority to spend up to Rs. 25,000. To use funds up to Rs.25,000, the monitoring committee must first give its approval. Prior approval must be obtained from the State Government directly for funds greater than 2 lakhs.

### **3.6.17 Elder Line 14567: A Helping Hand for the Elderly**

The Social Justice Department of Kerala has established a national level helpline for senior citizens in Trivandrum. Between 8:00 am and 8:00 pm, senior citizens can call the toll-free number 14567. The hotline will be operational all week. The senior citizens' complaints and issues will be attended to, and the helpline will offer support. A project manager, an administrative/financial officer, leaders, field response officers, and call officers will work as a team to oversee the initiative. "Connect Centre" will be the name of the helpline, and it will direct actions through call officers and field response officers. The services offered are:

- Providing information, orientation, emotional support, and supportive services.
- In response to calls for advice or information, the Connect Centre staff will offer the needed services.
- Depending on the nature of the contact, the call is forwarded to legal service authorities, professional counsellors, etc.
- If an elderly person is found abandoned, our field team will move them to an old age home nearby and work with the police and other stakeholders to attempt to reunite them with their family.
- If there are any abuse calls, our field team will conduct a preliminary investigation and assist in bringing a complaint or other legal action, as required.
- The helpline will collaborate with a number of organizations, including the police, the health department, the legal services authority, the local self-government, NGO's, etc.



The primary goal of the government is to establish conditions in which older people have a right to care, security, respect, and relief. By guaranteeing happy and healthy aging, Elder Line will be a dependable platform that improves the lives of senior citizens.

### **3.6.18 Aswasakiranam**

Aswasakiranam is an initiative administered by Kerala Social Security Mission that provides funds to patients who are bedridden and mentally challenged. Beneficiaries include those who provide care for bedridden patients, those who are mentally challenged, those who are blind, and those who are bedridden patients with cancer and other chronic illnesses. Each month, the caregiver is paid Rs. 525. Currently, about 49,000 beneficiaries receive help taking care of the mentally challenged and bedridden. According to reports, 40% of the recipients are elderly people.

### **3.6.19 Institutional Services to Aged People**

In Kerala, there are 15 old age homes funded by the government. The permitted population ranges from 25 to 100 inmates. According to data supplied by the Social Justice Department, by July 2013, about 770 inmates had been accommodated in these homes, with a few old age homes lodged more inmates than allowed while the majority old age homes lodged fewer inmates than allowed. In these residences, older females outnumber older males. According to data given by the state's Orphanage Control Board, as of March 31, 2013, 492 old age homes operated by, NGOs, or private citizens were registered with the board. An estimated 13,000 elderly men and women have been given shelter in these old age homes, which are dispersed throughout the state in the 14 districts. With the implementation of the Old Age Policy in the state, the state government has taken the initiative to monitor and scrutinize these homes to guarantee improved facilities for the elderly.

### **3.6.20 Grant to Old Age Homes Providing Shelter to Aged Ex-Servicemen/ Widows**

The Department of Sainik Welfare to oversee the wellbeing of all active-duty and retired members of the state's armed forces. The grant-in-aid program was implemented to provide assistance to elderly ex-servicemen who have been admitted to licensed nursing homes in the state and who are impoverished. Under this program, people who are at least 65 years old are qualified.

### **3.6.21 Palliative Care**

In Kerala, 973 PHCs offer palliative treatment to patients, including the elderly. Palliative treatment is given by doctors from the District Hospital and nurses from panchayats. Under this scheme, the beneficiaries receive primary care in their homes. The "Parireksha" program in the Malappuram District provided the finest ongoing palliative care at the primary level. In this area, more than 700 other Organizations are active. One of the top NGOs operating in the province is Paliyam. The National Rural Health Mission provides money to these NGOs so they can buy tools and equipment. The elderly also receive secondary and tertiary treatment.

### **3.6.22 Kerala State Road Transport Corporation**

Senior people in the state are given 20 per cent of the seats in all buses operated by the Kerala State Road Transport Corporation. The elderly freedom fighters receive passes that allow them to take express and fast buses for free. Widows of freedom fighters who receive pensions from the central or state government are also eligible for free travel.

## **3.7 Summary of the Chapter**

The outline of the demography of the elderly population around the world, India and Kerala revealed the implications of the astonishing growth in the elderly population. At the beginning of the twentieth century, India especially the state Kerala became a home to the greying population. The overview of the welfare measures for the senior citizens elucidates the rigorous effort taken by the various government and non-government organisations to tackle the challenges and prospects for the senior citizens. The motto behind all these initiatives was the enhancement of the welfare of the senior citizens and their active and productive ageing. However, the senior citizens, especially those who live in the rural areas, are still characterised as deprived and unproductive. The State of Kerala has witnessed the wave of demographic transition and the state cannot productively employ the senior citizens as productive resources. At this critical condition of the State, the overview of the welfare measures calls for programmes and policies which provide a progressive environment for the senior citizens.

## **Chapter 4**

# **Involvement of the Senior Citizens in the Rural Areas of Kerala**

## **4.1 Introduction**

The historical overview of the previous chapter covered the key policies and programmes launched for the welfare of the senior citizens around the globe, India and in the state of Kerala. The present chapter focuses on the involvement of the senior citizens in economic activities, by analysing the Census data of the years from 1991 to 2011. The Census data is used to obtain information of the senior citizens, particularly those between the ages of 60-69, because the present study is undertaken to analyse the senior citizens between the ages of 60-69. In Session 1.8.3.1, the present study defined the three categories of the senior citizens as the young-old elderly (age group of 60-69), the older-old (age group of 70-79) and the oldest-old (aged 80 and above). However, in the present study, a comparison is made between these three age groups, to understand the involvement of the senior citizens in the age of group 60-69 even better. Since 1991, the age-based tables of the participation of the population in the economic activities have been provided in the data of census. Therefore, the information required to analyse the participation of the senior citizens in the age group of 60-69, 70-79 and 80 plus was gathered from the Census data of the years 1991, 2001, and 2011.

The present chapter is arranged in such a way that the first part deals with the analysis of the growth of the population in the age group of the years between 60-69 in both rural and urban areas. The second part of this chapter analyses the work participation of the age groups of 60-69, 70-79 and 80 plus. This chapter also analyses the data from both urban and rural areas in order to bring about a comparative study of the participation of the senior citizens. The chapter in general tries to answer why the rural senior citizens require more attention than the senior citizens of the urban areas. The involvement of the oldest-old and older-old categories was also examined in order to comprehend the necessity of focusing on the young-old elderly's productive engagement.

## **4.2 Trend of the Growth of the Aged Population in Kerala**

The number of the aged population of Kerala has a faster growth than the rest of India. Kerala was well ahead in terms of social and human development indexes despite its rapid population expansion. The ageing of the population of Kerala is distinct due to the factors like declining population growth rate, rising longevity, high literacy, low fertility, and high levels of population mobility. With a rising Ageing Index, Kerala is in the third stage of its demographic transition. Demographers observe that Kerala's old age population is still growing and is continuing to follow this trend based on the demographic estimates. "The ageing population of the state has also been increasing rapidly in the recent decades. The percentage

of the population in the age group of 60 years and above to the total population was 12.6 for Kerala against the national average of 8 per cent, as per census 2011” (Kerala Economic Review, 2021).

**Table 4.1**  
**Demographic Profile of the Aged population in Kerala**

Year	Population aged 60 and above	Percentage of total population
1961	8,67,161	5.13*
1971	13,19,268	6.18*
1981	18,92,539	7.44*
1991	25,67,365	8.82
2001	33,35,675	10.48
2011	41,93,393	12.55
2021	46,98,088	12.33**
2031	53,65,379	12.94**

Source: Census 1961, 1971, 1981, 1991, 2001, 2021

\*Figures were compiled from the census 1961, 1971 and 1981

\*\*Figures for the years 2021-2031 were estimated from the census

The demographic profile of the aged in Kerala, which includes predicted population numbers for the two decades from 2021 and their associated percentages of the total population, illustrates the development in the size of Kerala's elderly population (defined as those 60 years of age and older). According to the data from successive censuses of 1961 to 2011, the percentage of people aged sixty and above has risen gradually and steadily between 1961 and 2011. According to the Census 1961, size of the aged population in Kerala was 8,67,161, which occupies 5.13 per cent of the total population of Kerala. As per the Census 1981, the senior citizen's population accounts 7.44 per cent of the total population of Kerala, portrays an increase from 6.18 per cent in 1971. In 1981, there were 18,92,539 people over the age of 60, which is more than twice as many as there were in 1961. But compared to Census numbers from 1961, the proportion of the elderly population to the total population has doubled by 2001. According to the recent census data of 2011, Kerala had 41,93,393 people aged sixty and above. This number will rise to 46,98,088 in 2021 and is projected to rise to 53,65,379 in 2031.

A trend line was made on the graph depicting Kerala's old age population from the year 1961 in order to comprehend the trend of the elderly aged population from 1961, 1971, 1981, 1991, 2002 and 2011. Trend lines are used to give a clear indication of the growth direction and to forecast future trends based on previously known values.

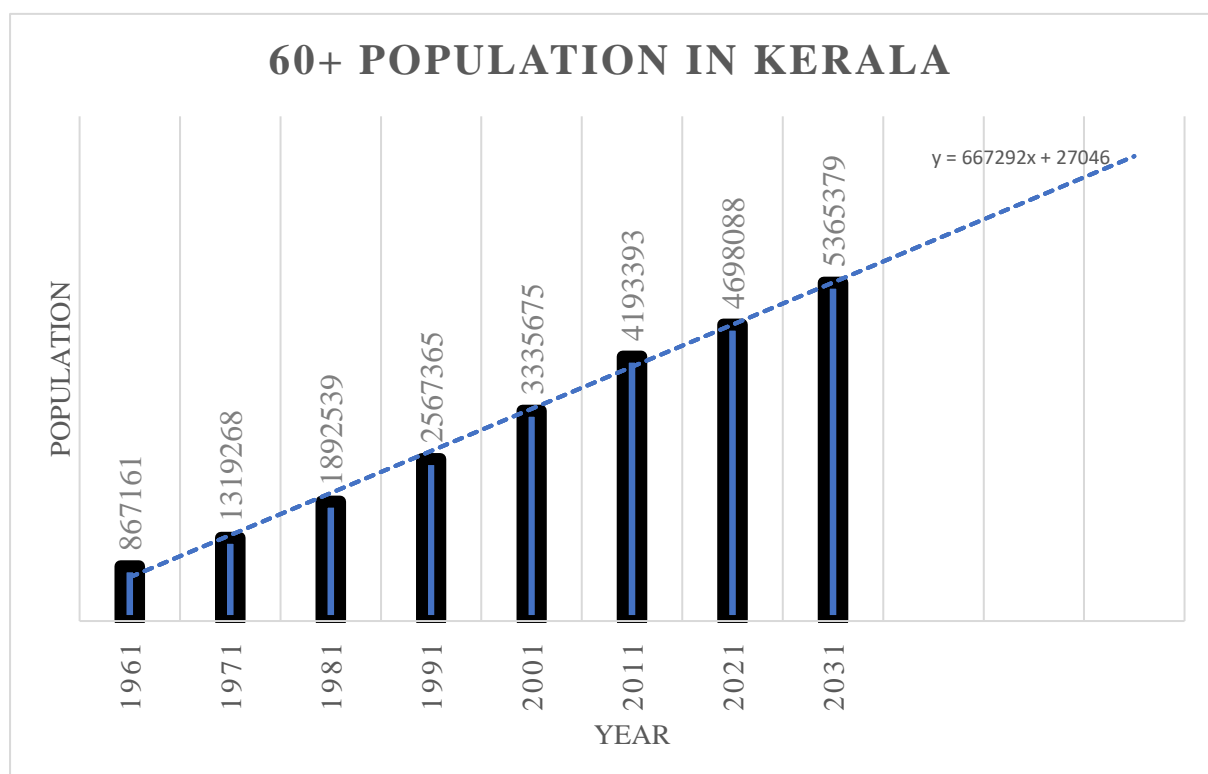
Figure 4.1 portrays the trend line of old age population in Kerala from the year 1961 and the predicted possible future trend till the year 2031. In figure 4.1, the trend line is a linear positively sloping trend line, which means the old age population of Kerala is increasing and will continue to increase at a steady rate in the future. The trend line equation is:

$$y = 667292x + 27046$$

Here, y is the dependent variable and x is the independent variable. The slope of the trend line is 667292 and the Y-intercept is 27046. As the year changes, it will create a proportionate change on estimating population, with the coefficient 667292. The Y-intercept, 27046 is constant throughout the estimation process.

**Figure: 4.1**

**Trend of the Aged Population in Kerala**

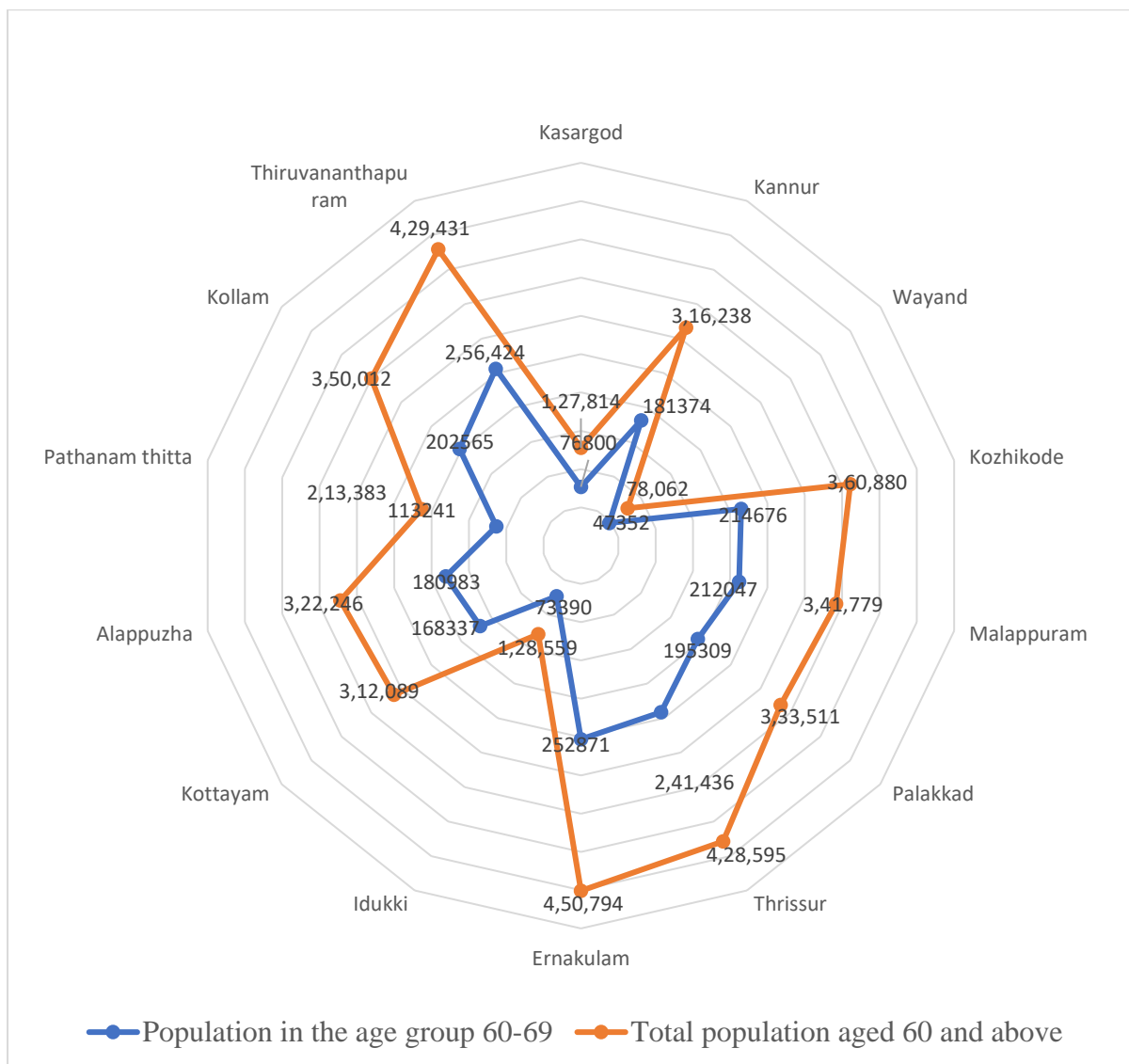


Source: Census data and its projection

### 4.3 District Wise Distribution of the population in the Age Group of 60-69

This part deals with a district wise analysis of the situation of Kerala’s current elderly population. For this analysis, the data from the 2011 Census that was available were used. The overall data of the senior citizens was given in the figure 4.2 with a focus on those between the ages of 60 and 69. Since the elderly in present study are young, an analysis of the seniors in the 60–69 age group are undertaken in this part of the study.

**Figure 4.2**  
**District Wise Elderly Population of Kerala in 2011**



Source: Census Data 2011

The district of Ernakulam, followed by the districts of Thiruvananthapuram and Thrissur, has the highest concentration of senior people older than sixty as a comparative

analysis is made for the fourteen districts of Kerala. The elderly population of Thrissur and Thiruvananthapuram did not exhibit much disparities. Due to the slight difference of 836, the second position is tied for Thrissur and Thiruvananthapuram. There are approximately four lakh old people in the three districts, Ernakulam, Thiruvananthapuram, and Thrissur. In the district of Wayanad, the senior population is least prevalent. It is the only district with fewer than 1,00,000 elderly people. However, nearly three lakh seniors have been counted in seven districts in Kerala, namely Kannur, Kozhikode, Malappuram, Palakkad, Kottayam, Alappuzha, and Kollam. Kottayam is the last of these seven districts, with a population of 3,12,089, while Kozhikode has the highest, at 3,60,880. Kollam comes in the second place with 3,50,012. There were 4,149 more elderly citizens in Kannur than in Kottayam. There are 1,27,814 and 1,28,559 elderly people in Kasargod and Idukki, respectively.

When it comes to the young-old (60-69), the district of Thiruvananthapuram had the largest concentration (2,56,424), followed by the districts of Ernakulam and Thrissur. In both the districts of Ernakulam and Thrissur, there are 2,52,871 and 2,41,436 people in the age group of 60-69, respectively. Three of the fourteen districts, including Kozhikode, Malappuram, and Kollam, are in the bottom three with a population of over 2,00,000 young-old elderly people. Districts like Palakkad, Kannur, Alappuzha, Kottayam, and Pathanamthitta had more than a million senior citizens in the age group of 60-69. Palakkad has come up to almost two lakhs with 1,95,309 young-old senior citizens (60-69), while Pathanamthitta has 1,13,241 people, just over a million. In Kozhikode and Malappuram, there are 2,14,676 and 2,12,047 young elderly people, respectively. The districts of Alappuzha and Kannur have 1,80,983 and 1,81,374 young senior citizens, respectively, and there was no noticeable difference between the two districts. There are three districts in Kerala, with less than average young-old senior population in the state of Kerala, namely Kasargod, Wayanad, and Idukki. The least number of young-old senior citizens (47,352) resides in the district of Wayanad, which is the youngest of the three districts based on its formation. In the districts of Kasargod and Idukki, there are 76,800 and 73,390 young senior citizens, respectively.

The present discussion on the district wise distribution of the age group between 60-69 years can be concluded by stating that there is an increase in the population of the senior citizens. In Kerala, the proportion of the senior citizens to the overall population is rising. Kerala is currently experiencing an earlier demographic transformation than the other Indian states. In Kerala, the senior population is expanding faster than the overall population. This contradictory demographic shift in the state of Kerala led to a rising old-age dependency ratio and a high Ageing Index.



#### 4.4 Old-Age Dependency Ratio and Ageing Index

“Gerontologists are concerned with the personal support systems and ‘social convoys’ of older persons since these support systems have important implications for the social, psychological, and economic well-being of older persons. The need for national measures of social and economic dependency of older persons has partly been fulfilled by demographers through the use of various measures of ‘age dependency’. These measures simply relate to the numbers in various age categories to one another” (Rajan, 1999).

As per the population forecasts, population of the senior citizens in Kerala is still growing and will keep growing. The unspoken truth underlying this tendency is that the proportion of the children in the age group of 0-14 do not rise to the same degree as the ageing population. At this juncture, it may be noted that as the proportion of the senior citizens in the population of Kerala rises, the proportion of the children does not rise, which is a tragedy in the demographic transition of Kerala. The state of Kerala will essentially turn to be an old age home if this tendency continues. Another interesting inferences to be drawn from the data of the census is that the birth rate in the state of Kerala has a negative or decreasing growth rate. The senior citizens in Kerala are one of the age categories that is growing fast compared to other age groups of the children and the middle age. Therefore, another projection or prediction to be made at this weld is that Kerala will face yet another challenge in the demography in the near future.

In India, population in the age group of 0-14 and the population aged 60 and above are regarded as the unproductive category and population in the age group of 15-59 are considered as the working population or productive category. Thus, increase in the senior population, without a subsequent increase in the working population, increases the pressure of the working population. Old-Age dependency ratio is used to measure the financial pressure on the actively working population of a society. It is necessary to know the old age dependent population where age shift occurs for the government, economists and all others who benefit from understanding the implications of demographic change.

The ol- age dependency ratio is calculated by the formula:

$$\text{Old-age dependency ratio} = \frac{\text{population aged 60 and above}}{\text{population in the age group of 15-59}}$$

Population aged 60 years and above are the dependent population and population in the age group of 15-59 are the independent working population. There is a negative relationship between the old-age dependency ratio and the population in the age group of 15-59. Higher the

old-age dependency ratio, lower will be the growth in working population and hence, increase the burden on the working population. Lower the old-age dependency ratio, the working population will grow more than that of the population of the senior citizens and hence lower dependency on the working population. Thus, in short, the old-age dependency ratio provides an insight into the potential burden that the elderly population might place on the working age population.

Another tool used to measure ageing of the community is Ageing Index. Index of Aging compares the number of post-productive population to the number of pre-productive population. Here, post-productive population is used to refer to the population aged 60 and above and the pre-productive population refers to the child population in the age group of 0-14. Thus, the Index of Aging is the ratio of the population aged sixty and above to child population. It is intended to measure the structure of dependency. The equation of Ageing Index is:

$$\text{Index of Ageing} = \frac{\text{population aged 60 and above}}{\text{population in the age group 0 – 14}}$$

There exists an indirect relationship between Ageing Index and the pre-productive population. As the population in the age group of 0-14 grows, higher than the growth of the population aged sixty and above, Ageing Index will be lower. If the child population in the age group of 0-14 grows lower than the population aged sixty and above, Ageing Index will be higher.

The Index of Ageing is useful for policy makers, demographers and social planners to understand the demographic composition of the population and to plan for social services, healthcare, pension systems, and other needs that may arise due to an ageing population.

Table 4.2 explicates the calculation of old-age dependency ratio and Index of Ageing from the year 1961 to 2011. The population needed for the calculation of old-age dependency ratio and Index of Ageing are also included in table 4.2. They are population in the age group of 0-14, 15-59 and 60 plus.

**Table 4.2****Old Age Dependency Ratio and Index of Ageing in Kerala from the Year 1961**

<b>Year</b>	<b>Population aged 60 and above</b>	<b>Population in the age group 15-59</b>	<b>Population in the age group 0-14</b>	<b>Old Age Dependency Ratio</b>	<b>Index of Ageing</b>
<b>1961</b>	8,67,161	87,67,957	72,68,597	9.89	11.93
<b>1971</b>	13,19,268	1,14,89,157	85,38,950	11.48	15.45
<b>1981</b>	18,92,539	1,46,52,353	89,08,788	12.91	21.24
<b>1991</b>	25,67,365	1,78,12,947	86,47,636	14.41	29.69
<b>2001</b>	33,35,675	2,01,82,700	82,96,545	16.53	40.20
<b>2011</b>	41,93,393	2,13,47,208	78,30,974	19.64	53.55

Source: Census 1961, 1971, 1981, 1991, 2001, 2011

In session 4.1, a detailed discussion was done on the growth of population of the senior citizens in Kerala. When the case of the working population considered, that is the population in the age group of 15-59, this category also portrays an increasing trend. In the year 1961, the working population in Kerala was 87,67,957, which formed 51.87 per cent of the population. In the year 1971, the working group population increased to 1,14,89,157 and further increased to 1,46,52,353 in the year 1981. Thus, the proportion of the working population to Kerala's total population has increased to 57.56 in the year 1981 from 53.82 in the year 1971. In the year 1991, the working population increased by 31,60,594 and reached 2,01,82,700 in the year 2001. Likewise, the proportion of the working population to the total population of Kerala is increasing, but the growth rate reveals a declining trend. As per the last Census in the year 2011, since the data of the year 2021 is not yet published, the total working population of Kerala was 2,13,47,208 and it constitutes 63.9 per cent of the total population of Kerala. The percentage increase of the population in the year 2011 from the year 2001 was 5.77 per cent, whereas the percentage increase from the year 1961 was 143.47 per cent. The percentage increase in the population of the senior citizens in the year 2011 from the year 1961 was 383.58

per cent, which means that the old age population grew in Kerala, two times faster than that of the working population.

Though the working population of Kerala is increasing, the pace of growth was very low. In the year 2011, the proportion of the working population to the total population was 63.9 per cent which is an increase from 63.39 per cent in the year 2001. In the year 1991 the proportion was 61.22 per cent. Thus, for the last three decades the working population occupy a stable proportion and can expect a decline in the proportion, because of declining fertility and growing elderly population. In Kerala, the population in the age group of 15-59 proves an increasing trend like the elderly population. But while the old age population is growing at a decreasing rate, the working population is growing at a decreasing rate lower than that of the old age population growth rate. The addition made by the age group of 0-14 to the working population was less than the addition made by the working population to the old age population. It is the outcome of declining birth rate in Kerala.

In the year 1961, the population in the age group of 0-14 was 72,68,597, which formed 42.99 per cent of the total population in Kerala. Up to the year 1981, the child population bared a growth. In the year 1981, the child population was 89,08,788, which brought about a vibrant increase from 85,38,950 in the year 1971. Even though the child population is increasing, the proportion was on decrease. After the year 1981 the entire trend was reversed. The child population began to diminish in Kerala from the year 1991. The population in the age group of 0-14 was 86,47,636 and was again declined to 82,96,545 in the year 2001. In the year 2011, the population in the age group of 0-14 reached to 78,30,974. At present, the child population occupy 23.44 per cent of the total population which was in actual numbers was decrease. From the year 1991 onwards, the child population in Kerala registered a negative growth rate. The percentage decline in child population was 5.61 per cent from the year 2001.

The declining trend of the child population will definitely result in the clustering of grey population in Kerala. The major consequence of this dramatic demographic transition resulted in smaller workforce and larger greying population. Increase in the proportion of the senior citizens with declining working and child population will create a negative impact and implication in the economy like decrease in productivity and income generation. Declining child population in the state of Kerala is an outcome of its social development. Educated women and quality health services lead to reduced infant mortality and finally leads to lower birth rate as more babies survive. Other crucial implications of declining population were rising old-age dependency ratio and rising Index of Ageing.

“The old-age dependency was 19.6 per cent for Kerala, whereas the same was 14.2 per cent for India in the year 2011” (Kerala Economic Review, 2021). In the year 1961, the old-age dependency ratio was 9.89. It increased to 11.48 in the year 1971 and to 12.91 in the year 1981. In the year 2011, the old-age dependency ratio reached to 19.64, which was more than double of the dependency in the year 1961. Thus, the doubling of old-age dependency means that over the years the old-age population is increasing at a faster rate than the working population. Thus, the responsibility of the working population in providing health, opportunities and social security benefits to take care of the senior citizens is goes on increasing.

“Rising old-age dependency ratio will impact negatively on future growth, savings, consumption, taxation, and pensions. They will also require major social adjustments because the population of the senior citizens is itself ageing. Women have higher survivorship than men and a lower propensity to remarry as they age, and thus are more likely to live alone and experience social isolation in older age” (Barbara Ingham, 2009). Not only in Kerala, but also in India, the elderly women outnumber the elderly men because of the longer life expectancy of women. In old age, women are more dependent on the working population than men. Majority of the elderly women are widows, who enjoys fewer human rights and less access to socio-economic opportunities. Lack of financial security and support, health issues, and denying basic human rights are the major challenges that the elderly women face today. Although they live longer, they are unable to live a happy and satisfied life. As they are greying, their physical and financial dependency are also increasing. The elderly men are more economically active than the elderly women. Thus, up to an extent, the elderly men can meet their own needs, whereas the elderly women are unable to do so. If they do so, they can do it only with great effort. The elderly women are labelled as the caregivers, who take care of their grandchildren and performs household activities, if their children are working. Since, the elderly women were asset less and have no income and they depend more on their children, grandchildren, and others. Then the working population bears the burden of the elderly women than that of the elderly men. Thus, the time has crossed to redefine the gender and age dimensions in accessing both social and economic opportunities. Otherwise, the pressure on the working population will go beyond the limit they can tolerate. Because of the declining child population, the working population also will decrease soon. Thus, a small working population must bear the responsibility of a large old age population.

Like the dependency ratio, the Index of Ageing, which is used to measure the structure of dependency, is also increasing. Index of Ageing is the proportion of population aged sixty

and above to the population in the age group of 0-14. In the year 1961, the number of the elderly persons for one hundred persons in the age group of 0-14 was 11.93. It means that for every hundred children, there is twelve elderlies in the economy. Table 4.2 shows the value of Ageing Index, which is increasing from the year 1961. In the year 1981, the proportion of the population of the senior citizens to the child population was 21.24 which brought about an increase from 15.45 per cent in the year 1971. After the year 1981, the Index of Ageing began to register a significant increase from the earlier decade. In the year 1991, the proportion was 29.69 per cent and it again increased to 4.20 per cent in the year 2001. As per the census of 2011, the proportion reached to 53.55 per cent, whereas the proportion was 11.93 per cent in the year 1961. It implies that, twelve elderlies were there for hundred children in the year 1961, which was transformed into fifty-three elderlies for hundred children in the year 2011.

In the year 1991, the Index of Ageing was increased to 29.69 per cent. The index was increased by 10.51 points and 13.35 points in 2001 and 2011 respectively. The substantial increase in the Ageing Index in Kerala from the year 1991 is also the visible output of demographic transition. The increasing points of Ageing Index reveals the magnitude of acceleration of population ageing in Kerala. The rising Ageing Index in Kerala implicit that the elderly population are increasing and child population are decreasing. Although the old-age population in Kerala was rising, the child population registered negative growth rate from 1991. Based on the demographic scenario of Kerala, the ageing index is expected to rise in the future decades. The exponential rise in the elderly population demands high social security and the society finds it hard to accommodate this huge senior population.

“In other words, in the future, every household in Kerala has to take care of one child and an aged mother or father. The implications of this to the family would be quite substantial as the cost and care of an older person is different from that of a child. For society, this shift in the dependency structure will mean a substantial change in the type of public sector expenditure” (Rajan, 1999). Thus, the findings of the present analysis corroborate with the findings of the study of Rajan (1999) which was conducted to study the impact of the social securities of the senior citizens.

The study has reviewed the demographic profile of the senior citizens and the ageing scenario of Kerala in detail. With this backdrop an assessment of the involvement of the senior citizens in the economic activities of Kerala are analysed. In the study involvement of the senior citizens in the economic activities are analyzed under two streams.

1. Involvement of the elderly main workers in the economic activities
2. Involvement of the elderly marginal workers in the economic activities

## **4.5 Involvement of the Elderly Main Workers in the Economic Activities**

The involvement of the elderly main workers in economic activities are analysed in a chronological order in this section. It is to understand the level of involvement, whether it is increasing or decreasing. For the analysis, the data collected from the census years of 1991, 2001 and 2011 are analysed.

### **4.5.1 Involvement of the Elderly Main Workers in the Economic Activities (Census 1991)**

In 1991, the economic activities were categorized into ten industrial categories. In the present study cultivators, agricultural labourers, plantation, livestock, forestry, fishing, hunting, orchards, mining, quarrying, and allied activities are grouped under the primary sector activities. Manufacturing and construction are grouped under the secondary sector and trade and commerce, transport, storage, and communication are grouped under the service sector.

Table 4.3 elucidates the number of senior citizens who are engaged in various economic activities in the year 1991. The data is primarily classified, based on their place of residence. In the next stage, the data is divided on the age group, in which they involve and within this age group, it is further subdivided based on their sex. In Kerala, 23.71 per cent of the senior citizens are main workers and among them 79.65 per cent are from the rural area and 20.35 per cent are from the urban area. On an average, the senior citizens in Kerala were highly engaged in the primary sector and least engaged in the manufacturing sector. But in the urban areas, the elderly main workers were dominating in the service sector. Among the urban elderly, 7.58 per cent were engaged in the service sector. The participation rate of the elderly main workers in the primary sector and manufacturing sector were 7.09 per cent and 4.1 per cent respectively. In the rural areas, 18.79 per cent of the elderly were engaged in the primary sector as main workers. The elderly main workers engaged in the manufacturing and service sector were 2.62 per cent and 4.02 per cent respectively.

In comparing the involvement of the senior citizens by their age groups, it was found that the young-old elderly were engaging more than the older-old and the oldest-old category. The senior citizens in the age group of 60-69 were regarded as the young elderly, because they are healthier and more active than the other two categories. In the rural areas, 77.57 per cent of the main workers constitute the young-old elderly. The young-old elderly explicate a significant difference from the other two age groups. The senior citizens in the age group of 70-79 and elderly aged 80 years and above constitute 17.27 per cent and 5.16 per cent of the elderly main workers in the rural areas. As people become aged, their involvement got

diminished. This is very much evident in urban area. In the year 1991, the involvement of the urban elderly was less than the rural elderly. Among the urban elderly main workers, the young-old elderly dominated by 78.83 per cent. The proportion of the older-old and oldest-old to the urban elderly main workers were 15.26 per cent and 5.91 per cent respectively.

A gender wise comparison of the involvement was also significant. The elderly women participated less than the elderly men in both urban and rural areas. In Kerala, a total of 5,11,030 elderly men and 97,808 elderly women were main workers in the year 1991. Among the total elderly main workers 83.94 per cent were men and the rest 16.06 per cent were women. In the rural areas, 84.31 per cent of the main workers were constituted by the elderly men and 15.69 per cent were the elderly women. Likewise, in the urban areas, the elderly men outnumber the elderly women. 82.48 per cent of the urban main workers were constituted by the elderly men and the remaining 17.52 per cent were the elderly women. However, while comparing the involvement of the rural elderly with the urban elderly, the rural elderly men registered more participation than the elderly women in the urban area. On contradiction to this, the urban elderly women had more participation than the elderly women in the rural areas.

Thus, in the year 1991 the economic activities, in which the senior citizens involved, limited to the conventional industrial categories. It is because, on those days, the opportunities available for the senior citizens were limited, especially for the rural senior citizens. 38.34 per cent of the elderly main workers in the rural areas were cultivators and 26.72 per cent were agricultural labourers. The occupations like cultivators, agricultural labourers, mining, and construction, do not require any educational qualification. These industries demand only their skill and practical knowledge, which they had acquired from their childhood. In the urban areas, 15.27 per cent of the elderly main workers were cultivators and 15 per cent of them were agricultural labourers. In the urban areas, cultivators and agricultural labourers together contributed to 30.27 per cent of the elderly main workers in the urban areas while that of rural areas it was 65.06 per cent. A gender discrimination was also significant among the cultivators and the agricultural labourers both in the rural and urban areas. The elderly men cultivators were more than the elderly men agricultural labourers.



**Table 4.3**

**Activity Participation of the Elderly Main Workers (Census 1991)**

<b>Main Workers by industrial category 1991</b>												
<b>Industrial Category</b>	<b>Rural</b>						<b>Urban</b>					
	<b>60-69</b>		<b>70-79</b>		<b>80+</b>		<b>60-69</b>		<b>70-79</b>		<b>80+</b>	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Cultivators	124170	9885	41567	2410	7442	450	11966	1248	4370	352	890	90
Agricultural Labourers	78930	31495	12540	3140	2780	700	11547	4480	1820	420	270	50
Plantation, Livestock, Forestry, Fishing, Hunting, Orchards, and allied activities	29146	2140	5249	354	3257	297	6752	435	994	76	429	26
Mining and Quarrying	1610	249	227	28	302	21	383	54	59	8	73	8
Manufacturing - Household Industries	7019	6741	1544	991	405	295	2518	2688	443	415	129	105
Manufacturing - Non-Household Industries	15432	6149	2623	704	1472	417	11265	2710	1624	377	985	176
Construction	4795	101	588	11	636	23	2795	116	354	8	346	14
Trade and Commerce	32593	2763	6366	401	2628	139	21047	2102	4211	311	1541	99
Transport, Storage and Communications	2853	165	303	20	810	22	2900	157	329	19	548	23
Workers in other services	15430	4522	3776	916	2370	553	8448	4040	1972	744	1159	355
Total	311978	64210	74783	8975	22102	2917	79621	18030	16176	2730	6370	946

Source: Census 1991

The difference among the rural-urban areas was quite natural because rural areas were regarded as villages with low population density and urban areas as towns and cities with high population density. Urban areas also offer better standard of living, more employment opportunities and better access to various services than in the rural areas. It leads the urban senior citizens to shift to the service sector from the primary sector. 40.37 per cent of the urban elderly main workers were working in service sector, while in rural areas it was 15.8 per cent. Geographical differences and the high social development were the reasons for this geographical imbalance in involvement of the senior citizens in the economic activities.

The elderly main workers in the both rural and urban areas exhibit least participation in the secondary sector than the other two sectors. In the rural areas, the elderly main workers engaged in manufacturing and construction activities were 10.29 per cent, while in the urban areas it was twice that of the rural areas i.e., 21.18 per cent. Among the three industrial categories of secondary sector, highest participation of the elderly main workers was registered in the non-households manufacturing industry, followed by the household manufacturing industry. The construction industry had the least participation of the elderly main workers. Secondary sector was characterised by the involvement of high-risk factor. The senior citizens lacked proper knowledge and strength and they were not able to cope up with this risk. Besides these, their family would not allow them to engage in such activities. All these together contribute the decreased participation of the senior citizens in the secondary sector.

Thus, in the year 1991 the economic activities, in which the senior citizens involved, limited to the conventional industrial categories. It is because, on those days, the opportunities available for the senior citizens were limited, especially for the rural senior citizens. 38.34 per cent of the elderly main workers in the rural areas were cultivators and 26.72 per cent were agricultural labourers. The occupations like cultivators, agricultural labourers, mining, and construction, do not require any educational qualification. These industries demand only their skill and practical knowledge, which they had acquired from their childhood. In the urban areas, 15.27 per cent of the elderly main workers were cultivators and 15 per cent of them were agricultural labourers. In the urban areas, cultivators and agricultural labourers together contributed to 30.27 per cent of the elderly main workers in the urban areas while that of rural areas it was 65.06 per cent. A gender discrimination was also significant among the cultivators and the agricultural labourers both in the rural and urban areas. The elderly men cultivators were more than the elderly men agricultural labourers.

The difference among the rural-urban areas was quite natural because rural areas were regarded as villages with low population density and urban areas as towns and cities with high population density. Urban areas also offer better standard of living, more employment opportunities and better access to various services than in the rural areas. It leads the urban senior citizens to shift to the service sector from the primary sector. 40.37 per cent of the urban elderly main workers were working in service sector, while in rural areas it was 15.8 per cent. Geographical differences and the high social development were the reasons for this geographical imbalance in involvement of the senior citizens in the economic activities.

The elderly main workers in the both rural and urban areas exhibit least participation in the secondary sector than the other two sectors. In the rural areas, the elderly main workers engaged in manufacturing and construction activities were 10.29 per cent, while in the urban areas it was twice that of the rural areas i.e., 21.18 per cent. Among the three industrial categories of secondary sector, highest participation of the elderly main workers was registered in the non-households manufacturing industry, followed by the household manufacturing industry. The construction industry had the least participation of the elderly main workers. Secondary sector was characterised by the involvement of high-risk factor. The senior citizens lacked proper knowledge and strength and they were not able to cope up with this risk. Besides these, their family would not allow them to engage in such activities. All these together contribute the decreased participation of the senior citizens in the secondary sector.

#### **4.5.2 Involvement of the Elderly Main Workers in the Economic Activities (Census 2001)**

In the year 2001, the economic activities were categorised into eighteen industrial categories. As economy expands and society develops there is increased division of labour and the opportunities available for the senior citizens also increased. Industrial categories of primary sector remained the same in 2001, while the secondary and service sectors had some additions. Electricity, gas, steam and supplies of air condition and water were the additions to the secondary sector derived from the Census 1991. In service sector, trade and commerce industry were widened and industries like wholesale and retail trade, hotels and restaurants, financial intermediation, and real estate, renting and business activities were added. In addition to these, public administration and defence, compulsory social security, education, human health, and social work activities were added in the Census data of 2001.

Table 4.4 explains the number of the senior citizens who were engaged in various economic activities in the year 2001. The data is classified, based on the place of the residence of the senior citizens. Then, the data was divided on the age group, in which they belonged to and this age group was further subdivided on the basis of their sex.

In the year 2001, 10.47 per cent of the total population of Kerala was elderly population. Among the elderlies of 33,35,675, 74.32 per cent were the rural elderly and 25.68 per cent were the urban elderly. As per the Census 2001, 18.33 per cent of the rural elderly were main workers and 14.58 per cent of the urban elderly were main workers. In the Census 1991, the proportion of main workers to rural elderly and urban elderly were 25.42 per cent and 18.78 per cent respectively. This is an alarming situation because the participation of the elderly main workers was decreasing while their population were increasing. In the year 2001, the participation of elderly main workers was decreased by 6.35 per cent in Kerala, whereas the elderly registered growth rate of 29.93 per cent increase in 2001 from the year 1991.

In Kerala, 5,79,225 senior citizens worked as main workers in the year 2001. In sector wise analysis it was found that, 56.61 per cent of the senior citizens were depending on primary sector to earn regular income and elderly depending on secondary sector and service sector were 15.52 per cent and 27.87 per cent respectively. In a general sense, the interest of elderly towards each sector was same for the year 2001. Highest participation of the elderly was registered in primary sector followed by service sector and the least participation was in the secondary sector. As a comparison is made in the involvement of seniors of rural and urban areas, substantial differences could be noticed. These differences were attributed to the geographical set up, access and availability of opportunities in rural and urban areas. In rural areas, elderly main workers were highly dominated in the primary sector whereas in urban areas, service sector was dominated by elderly main workers. Both urban and rural areas portrayed the least involvement in the secondary sector. In the rural areas, 65.32 per cent of the rural main workers were engaged in primary sector, followed by service sector with 21.55 per cent and only 13.13 per cent of the main workers in rural area were engaged in secondary sector. In the year 1991, the percentage of main workers involved in the primary, secondary, and service sectors were 73.89 per cent, 10.29 per cent and 15.82 per cent respectively. In rural areas the involvement of seniors in primary activities was getting reduced day by day.

Table 4.4

## Activity Participation of the Elderly Main Workers (Census 2001)

Main Workers by industrial category 2001												
Industrial Category	Rural						Urban					
	60-69		70-79		80+		60-69		70-79		80+	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Cultivators	82371	9074	36625	3341	6949	645	4508	693	2045	265	351	55
Agricultural Labourers	45620	17607	9681	2528	1687	508	4574	1885	976	256	129	49
Plantation, Livestock, Forestry, Fishing, Hunting, and allied activities	48810	9860	14430	1925	2640	320	9754	2020	2274	378	450	54
Mining and Quarrying	1375	395	240	65	15	15	308	52	54	6	8	0
Manufacturing - Household Industries	9365	4530	2695	1125	425	205	3474	1426	1090	364	168	48
Manufacturing - Non-Household Industries	14980	7720	3365	1350	835	270	10050	2652	2210	568	432	136
Electricity, Gas, steam, and Air conditioning Supply												
Water Supply; (Sewerage, Waste Management, and remediation activities)	180	60	20	10	20	0	108	74	18	6	26	2
Construction	9495	715	1640	85	570	35	5646	500	854	52	294	26
Wholesale and retail trade	32040	3140	9210	770	1370	140	19632	2018	5246	502	932	120
Hotels and Restaurants	7545	800	1455	110	220	15	3428	418	798	80	98	16
Transportation, Storage, and communications	5520	395	820	35	380	40	4050	276	592	44	268	14
Financial intermediation												
Real estate, Renting and Business Activities	4545	615	1360	115	285	40	4780	480	1460	152	288	64
Public Administration and Defence, Compulsory Social Security												
Education												
Human Health and Social Work activities												
Other Service Activities	12875	7400	3685	1640	895	420	7844	5578	2338	1184	514	342
<b>Total</b>	<b>274721</b>	<b>62311</b>	<b>85226</b>	<b>13099</b>	<b>16291</b>	<b>2653</b>	<b>78156</b>	<b>18072</b>	<b>19955</b>	<b>3857</b>	<b>3958</b>	<b>926</b>

Source: Census 2001

In the year 2001, 74.79 per cent of the main workers were constituted by the young-old elderly. The percentage of the older-old elderly and the oldest-old elderly worked as main workers were 21.09 per cent and 4.12 per cent respectively. In 1991, the involvement of the older-old main workers was 16.86 per cent of the total main workers and that of the oldest-old were 5.31 per cent. The involvement of the senior citizens in the age group of 70-79 from the year 1991 has increased and the involvement of the senior citizens aged 80 years and above were getting decreased. As against the general belief, the involvement of the young-old elderly got decreased in the year 2001 by 3.04 per cent. In rural areas of Kerala, 74.19 per cent of the young elderly were main workers. 21.64 per cent and 4.17 per cent respectively of the remaining were older-old main workers and oldest -old main workers respectively. In the year 1991, 77.57 per cent of the main workers were constituted by the young-old elderly and that of the older-old and oldest-old elderly constituted 17.27 per cent and 5.16 per cent of the elderly main workers respectively. Thus, in the rural areas the involvement of the young-old elderly and the oldest-old elderly registered a decline in their participation whereas the older-old elderly registered an increased participation in economic activities. Unlike rural area of Kerala, the young-old elderly constituted 77.03 per cent of the main workers, whose participation is high in urban areas than in rural areas. Their involvement in economic activities also decreased by 1.8 per cent in the year 2001. The involvement of the older-old main workers was 19.06, which is an increase from 15.26 per cent in the year 1991 and in comparison, with rural area, the involvement of the older-old elderly of urban area registered lower participation. Involvement of the oldest old urban main workers were reduced to 3.91 per cent in the year 2001 from 5.91 in the year 1991 and their participation were also less in comparison with the rural areas.

In the census year 2001, among the total elderly main workers 82.58 per cent were men and the rest 17.42 per cent were women. Here, the elderly men main workers constituted 32.22 per cent of the total elderly men, whereas the elderly women main workers constituted only 5.45 per cent of the total elderly women. In rural areas, out of the total main workers 82.82 per cent were the elderly men and 17.18 per cent were women. In the year 1991, participation of the elderly male main workers and the elderly female main workers in economic activities were 84.31 per cent and 15.69 per cent respectively. This variation in the proportion brought about an increase in the participation of the rural elderly women in economic activities. In urban areas, 81.7 per cent of the main workers were the elderly men and 18.3 per cent were the elderly women. Participation of the elderly women in economic activities explicated a slight increase

from 17.52 per cent in the year 1991. Thus, both in urban and rural areas, the elderly men indicated more significant participation than the elderly women.

### **4.5.3 Involvement of the Elderly Main Workers in the Economic Activities (Census 2011)**

In the year 2011, the economic activities were categorised into 24 industrial categories. As economy expands and society develops there is an increased division of labour and the opportunities available for the senior citizens also should be increased. Industrial categories of both primary and secondary sector remained the same in the year 2011 from that of 2001, while service sector had major additions. The additions were accommodation and food service activities, information and communication, financial and insurance activities, professional, scientific and technical activities, administrative and support service activities, arts, entertainment and recreation, activities of households as employers and activities of extra-territorial organisation and bodies. Another significant change made in the industrial categories such as wholesale and retail trade and information and communication, was that these categories were divided into household industries and non-household industries.

Table 4.5 illustrates the number of senior citizens who were engaged in various economic activities in the year 2011. The data was primarily classified, based on their place of residence. The data was further divided into age groups and again subdivided based on their sex.

In the year 2011, out of the 41,93,393 seniors in Kerala 7,75,950 seniors were main workers i.e., 18.5 per cent of the seniors were main workers in Kerala. This possession confirms a slight increase of 1.1 per cent in 2011 from 2001, after a sharp decline of involvement from 23.71 per cent in 1991 to 17.36 per cent in 2001. Among the elderly main workers 58 per cent of them were from rural areas and the remaining 42 per cent were constituted by urban elderly. This is a significant finding of the study. In 2001, the proportion of rural elderly main workers and urban elderly main workers to elderly main workers were 78.43 per cent and 21.57 per cent respectively. In 1991, the proportion of rural and urban elderly main workers to total elderly workers were 79.65 per cent and 20.35 per cent respectively. Thus, 1991 and 2001 displays a clear disparity in the involvement of senior main workers and in their population too. But in 2011, the regional disparity in elderly population and in their involvement was minimum. The difference between the rural elderly main workers and urban elderly main workers were just 16 per cent instead of 56-60 per cent. Rapid urbanisation, migration and high social and human development in Kerala were the major contributing factor for this minimum disparity.

**Table 4.5**

**Activity Participation of the Elderly Main Workers (Census 2011)**

Main Workers by industrial category 2011												
Industrial Category	Rural						Urban					
	60-69		70-79		80+		60-69		70-79		80+	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Cultivators	77913	9143	30696	3117	6539	695	13236	1402	5300	477	1066	110
Agricultural Labourers	49441	21306	10463	3617	1583	606	14151	4861	3078	823	428	146
Plantation, Livestock, Forestry, Fishing, Hunting, and allied activities	52115	10283	12786	1922	2250	284	28807	3971	6627	740	1096	118
Mining and Quarrying	1236	218	185	18	34	4	948	137	78	19	17	4
Manufacturing - Household Industries	5727	2044	1484	446	271	93	5709	2090	1607	435	314	104
Manufacturing - Non-Household Industries	13434	6424	2533	1100	513	183	24277	6719	4697	1127	696	227
Electricity, Gas, steam, and Air conditioning Supply												
Water Supply; (Sewerage, Waste Management, and remediation activities)	317	53	59	25	10	4	634	169	152	16	38	15
Construction	14791	5035	1960	660	425	127	23921	3855	3127	509	614	78
Wholesale and retail trade - Household Industries	66	0	18	0	3	0	139	3	34	0	11	0
Wholesale and retail trade - Non-Household Industries	25657	2727	6375	687	999	160	43558	3688	10057	919	1484	161
Transportation and Storage	6849	498	701	39	156	33	12161	636	1340	82	298	15
Accommodation and food service activities	6858	889	1270	153	147	48	8837	941	1542	226	174	25



(Continued from table 4.3.1)

Information and Communication - Household Industries	26	0	6	0	0	0	41	11	22	0	0	0
Information and Communication - Non-Household Industries	434	29	114	21	21	0	1249	102	217	36	76	8
Financial and Insurance activities												
Real Estate activities												
Professional, Scientific, and technical activities	2728	256	545	44	71	7	6668	713	1366	93	224	19
Administrative and support service activities												
Public Administration and Defence, Compulsory Social Security	2947	568	529	60	152	23	7096	1200	1327	136	324	68
Education												
Human Health and Social Work activities	3245	3155	901	668	178	201	6848	4708	1740	815	349	226
Arts, Entertainment, and recreation												
Other Service Activities												
Activities of Households as Employers: Undifferentiated Goods and Services												
Activities of Extra-Territorial Organisations and Bodies	11874	6221	3705	1747	702	439	16388	9388	4962	2498	1144	665
<b>Total</b>	<b>275658</b>	<b>68849</b>	<b>74330</b>	<b>14324</b>	<b>14054</b>	<b>2907</b>	<b>214668</b>	<b>44594</b>	<b>47273</b>	<b>8951</b>	<b>8353</b>	<b>1989</b>

Source: Census 2011

As per the Census 2011, 49.49 per cent of the elderly main workers were engaged in the primary sector, 32.62 per cent of the elderly main workers were engaged in the service sector and the remaining 17.89 per cent were engaged in the secondary sector. In the year 2001, 56.61 per cent of the elderly main workers were engaged in the primary sector. The percentage of elderly main workers engaged in secondary and service sector in the year 2001 were 15.52 per cent and 27.87 per cent respectively. Thus, in the year 2011 the proportion of elderly main workers, who engaged in primary activities were decreased and that of main workers engaged in secondary and tertiary activities were increased. If we investigate rural elderly main workers, the involvement of senior citizens as main workers was decreased in the year 2001 and in the year 2011, the proportion of elderly main workers does not show any change in their participation. Elderly main workers in rural areas were depend highly in primary activities followed by tertiary and secondary activities. Among the elderly main workers in rural areas, 65.86 per cent were engaged in primary activities and the percentage of elderly main workers engaged in secondary sector and tertiary sector were 12.82 per cent and 21.32 per cent respectively. In urban areas, 48.22 per cent of the elderly main workers were engaged in service sector followed by the primary sector and secondary sector with a proportion of 26.89 per cent and 24.89 per cent respectively.

Among the elderly main workers, 6,03,769 seniors were included in the age group of 60-69, 14,4,878 were included in the age group of 70-79 and the remaining 27,303 were aged 80 years and above. In the rural areas, 76.54 per cent of the elderly main workers were young-old elderly. The proportion of older-old and oldest old to the elderly main workers in rural area were 19.69 per cent and 3.77 per cent respectively. Thus, the involvement of young-old elderly in rural areas increased in the year 2011. But the involvement of older-old and oldest-old registered a decline in their participation. Thus, after a decline in 2001, the involvement of senior citizens in the age group of 60-69 increased and a further increase is expected in the future. In urban areas, the percentage of young-old elderly who were engaged in economic activities were 79.59 per cent, which is an increase from 77.03 per cent in the year 2001. Thus, the participation of young-old elderly in urban area has not only increased but it also higher than that of the young-old rural elderly main workers. In the year 2011, the involvement of the older-old and oldest old were 17.26 per cent and 3.17 per cent of the main workers in urban areas. The involvement of the older-old category indicated a decline in their participation in rural areas. But, oldest -old maintained their participation at the same level with a fraction of differences. Thus, the increased involvement of senior citizens in the age group of 60-69 was

a positive sign and a special attention was needed for them especially in rural areas because their participation was less than the young-old elderly in urban area.

In the year 2011, out of the elderly main workers, 81.75 per cent were elderly men and 18.25 were elderly women. In the year 2001, out the elderly main workers, 82.58 per cent were elderly men and 17.42 per cent were elderly women. Thus, the participation of elderly women spectacles a satisfactory trend at the present juncture of increasing elderly women population. Although, elderly women outnumber elderly men, male elderly main workers outnumber female elderly main workers. There is a large gap between the involvement rate of the elderly men and elderly women in economic activities. This large disparity existed in Kerala irrespective of their place of residence. In rural areas, the involvement of elderly male main workers decreased to 80.88 per cent in the year 2011 from 82.58 per cent in the year 2001. The involvement of the elderly women in economic activities as main workers were 19.12 per cent. The involvement of the elderly women increased overtime Kerala. The percentage of the elderly women who worked as main workers in the years 1991 and 2001 were 15.69 and 17.42 respectively. In urban areas, 82.96 per cent of the elderly main workers were elderly men and the remaining 17.04 were elderly women. The involvement of the elderly women in economic activities in urban did not express any distinct feature because their participation remained around 17 per cent for the last three decades. The involvement of the urban elderly women in economic activities was lower than that of rural elderly women. As an analysis was made on the involvement of senior citizens in economic activities as amin workers in the present session, the proceeding session will discuss on the involvement of the elderly marginal workers in economic activities.

#### **4.6 Involvement of the Elderly Marginal Workers in the Economic Activities**

The involvement of elderly marginal workers in economic activities is analysed in a chronological order. In this section it is to understand the level of involvement, whether it is increasing or decreasing. For the analysis, the data collected from the census 1991, census 2001 and census 2011 was used. In the Census, in general marginal workers were divided into two categories. They are;

1. Marginal workers worked less than three months in a year.
2. Marginal workers worked less than six months and above three months in a year.

To avoid the complexity in analysing marginal workers involvement in economic activities, the present study combined both categories of the population of marginal workers.

#### **4.6.1 Involvement of the Elderly Marginal Workers in the Economic Activities (Census 1991)**

The Census of 1991 categorized the economic activities of the senior citizens into ten industrial divisions. In the present study cultivators, agricultural labourers, plantation, livestock, forestry, fishing, hunting, orchards, mining, quarrying, and allied activities are grouped under the primary sector activities. Manufacturing and construction are grouped under the secondary sector and trade and commerce, transport, storage, and communication are grouped under the service sector.

Table 4.6 elucidates the number of senior citizens who were engaged in various economic activities during the year 1991. The data was primarily classified, based on their place of residence. The data was further divided based on the age of the senior citizens and the age group was again subdivided based on their gender.

The marginal workers of the elderly population during the Census year 1991 was 3.12 per cent. Out of these elderly marginal workers, 83.63 per cent were constituted by rural elderly and the left 16.37 were constituted by urban elderly. The highest participation was registered in the industrial category of agricultural labourers followed cultivators and the least participation was found in mining and quarrying. Like the involvement of main workers in rural and urban area in the year 1991, the involvement of the elderly in rural and urban area also manifested a large disparity in their involvement. At the end of the twentieth century, elderly marginal workers were highly depending on primary sector followed by secondary and service sectors. The main workers involved in the service sector rather than in the secondary sector. This pattern of involvement was visible in rural and urban areas. In rural areas, 82.8 per cent of the rural elderly marginal workers were involved in primary sector, while that of in urban area, 58.68 per cent were involved in primary sector. Elderly marginal workers involved in the secondary and service sector were 10.97 per cent and 6.23 per cent respectively in rural areas. In urban areas, 23.67 per cent of the elderly marginal workers were engaged in the secondary sector and the remaining 17.65 per cent were in service sector. The rural elderly marginal workers predominantly engaged in primary activities rather than the other two sectors. But in urban areas, only 58.68 per cent were depending on primary activities. The involvement of urban elderly marginal workers in secondary and tertiary activities was 23.67 per cent and 17.65 per cent respectively. Their involvement in secondary and tertiary activities was far higher than that of rural elderly marginal workers. The better performance of the senior citizens of the urban areas in the secondary and tertiary sectors, could be attributed to the better

opportunities available in the urban centres of the economy of Kerala. A general observation which can be made here is that people residing in urban centres have better facilities like accessibility to get productively employed, access to better transport, better wage or salary and the amenities like the presence of all important institutions.

Out of the elderly marginal workers (Census 1991), 56.98 per cent were men and 43.02 per cent were women. The elderly marginal workers appeared to have almost equal participation irrespective of the gender differences. This gender equal participation is also visible in rural and urban area. Even though, there is a visible difference in the involvement of men and women in general, the performance in the case of elderly could be due to their proneness to be more productive. In the rural areas, 56.67 per cent of the elderly marginal workers were elderly men and 43.33 per cent were elderly women, whereas in urban areas, the percentage of elderly men and elderly women constituted 58.56 per cent and 41.44 per cent respectively.

Senior citizens in the age group of 60-69 constituted 77.54 per cent of the elderly marginal work force, whereas seniors in the age group 70-79 and those who aged 80 years and above constituted 17.43 per cent and 5.03 per cent respectively during the Census of 1991. Here too, the involvement of the respective age groups indicated almost equal participation in both rural and urban areas. In rural areas, young-old elderly constituted 77.25 per cent of the elderly marginal workers, while the older-old category constituted 17.63 per cent and the remaining 5.12 per cent were constituted by the oldest-old. Senior citizens in the age group of 60-69, both men and women, registered higher participation as agricultural workers followed by as cultivators. The elderly men in the age group of 60-69 marked least participation in mining and quarrying whereas the elderly women marked least participation in the field of construction. Mining and quarrying, construction, transport, storage, and communication were the three industrial categories in which the number of elderly women participated was less than 100. These industrial categories demanded high physical strength and it also involved high risk. The elderly marginal workers in the age group of 70-79 and aged 80 years and above were also participated comparatively well in agricultural labour followed by cultivation.

Table 4.6

## Activity participation of the Elderly Marginal Workers (Census 1991)

Industrial Category of marginal workers by place of residence and sex 1991												
Industrial Category	Rural						Urban					
	60-69		70-79		80+		60-69		70-79		80+	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Agricultural Labourers	10424	10038	2262	1346	795	442	1604	1551	367	217	103	50
Cultivators	9709	8160	3610	1788	851	385	1152	881	406	203	85	36
Plantation, Livestock, Forestry, Fishing, Hunting, Orchards, and allied activities	3207	909	764	148	255	64	646	145	117	26	37	6
Mining and Quarrying	172	53	33	11	16	6	46	4	7	2	2	0
Manufacturing - Household Industries	430	1785	131	306	39	70	175	290	42	40	13	12
Manufacturing - Non-Household Industries	1109	2063	283	299	82	90	643	1132	123	176	43	52
Construction	491	15	109	4	38	1	256	28	48	1	28	1
Trade and Commerce	1055	299	284	53	95	1	579	153	121	21	42	6
Transport, Storage and Communications	241	34	27	3	38	5	188	14	29	2	18	4
Other Services	1035	505	266	79	96	57	562	306	145	58	50	16

Source: Census 1991

In urban areas, 78.98 per cent of the elderly marginal workforce was constituted by young-old elderly. Among the young-old elderly, both men and women exhibited higher participation in agriculture activities and least participation in mining and quarrying. Older-old and oldest-old marginal workers constituted 16.41 per cent and 4.61 per cent respectively of the urban elderly marginal workers. Both the older-old and oldest-old were highly involved in agricultural activities followed by cultivation. Both the age group registered least participation in mining and quarrying irrespective of their gender differences.

#### **4.6.2 Involvement of the Elderly Marginal Workers in the Economic**

##### **Activities (Census 2001)**

In the census of 2001, the economic activities were categorised into eighteen industrial categories. As economy expands and society develops there is increased division of labour and the opportunities available for seniors also got increased. Industrial categories of primary sector remained the same in the year 2001, while the secondary and service sectors had certain additions. Electricity, gas, steam and air conditioning supply and water supply were the additions to the secondary sector from the Census of 1991. In service sector, the trade and commerce industry were widened including industries like wholesale and retail trade, hotels and restaurants, financial intermediation, and real estate, renting and business activities. In addition to these, public administration and defence, compulsory social security, education, human health, and social work activities were added in the Census of 2001.

Table 4.6 expounds the number of senior citizens who were engaged in various economic activities during the Census in the year 2001. The data was primarily classified, based on their place of residence. As in the case of sections from 4.2 to 4.4, here too, the age group was further sub-divided based on their gender.

In the year 2001, 5.23 per cent of the elderly population was marginal workers, whereas in 1991 the elderly marginal workers were 3.12 per cent. Among the elderly marginal workers, 82.89 per cent were constituted by rural elderly and 17.11 per cent were constituted by urban elderly. In the year 1991, the rural elderly participation was 83.63 per cent and urban elderly participation was 16.37 per cent. Thus, participation of elderly marginal workers got increased as well as their involvement. Elderly marginal workers were mainly agricultural labourers, followed by cultivators and the industrial categories of plantation, livestock, forestry, hunting and fishing. Elderly marginal workers were employed less in the industrial categories of electricity, gas, and water supply.

**Table 4.7**  
**Activity Participation of the Elderly Marginal Workers (Census 2001)**

<b>Industrial Category of marginal workers by place of residence and sex 2001</b>												
<b>Industrial Category</b>	<b>Rural</b>						<b>Urban</b>					
	<b>60-69</b>		<b>70-79</b>		<b>80+</b>		<b>60-69</b>		<b>70-79</b>		<b>80+</b>	
	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>	<b>Male</b>	<b>Female</b>
Agricultural Labourers	27320	10420	6892	2866	1203	484	2608	1853	643	310	94	42
Cultivators	14973	4711	6846	1542	1327	289	845	298	426	114	74	16
Plantation, Livestock, Forestry, Fishing, Hunting, and allied activities	13390	6425	4105	1265	605	230	2717	1002	764	198	136	22
Mining and Quarrying	505	170	95	60	15	10	114	14	16	6	6	0
Manufacturing - Household Industries	2170	3200	895	795	145	150	622	950	220	306	30	60
Manufacturing - Non-Household Industries	3425	4640	1055	980	205	215	1644	1536	402	378	66	74
Electricity, Gas, and Water supply	25	0	10	5	0	0	14	2	6	0	0	0
Construction	3190	480	615	35	135	20	1658	288	308	24	60	8
Wholesale and retail trade	4225	1090	1400	360	255	50	1780	618	596	154	114	32
Hotels and Restaurants	885	165	185	25	35	5	374	76	90	18	18	2
Transport, Storage and Communications	1150	175	230	20	70	5	722	92	148	12	34	0
Financial Intermediation												
Real estate, Renting and Business Activities	1015	315	325	95	30	25	678	222	232	60	48	24
Private households with employed person												
Other community, social and personal service activities												
Public Administration and Defence, Compulsory Social Security												
Education												
Human Health and Social Work activities												
Activities of Extra-Territorial Organisations and Bodies	2225	2895	760	730	155	175	896	1500	380	346	68	80
<b>Total</b>	<b>74498</b>	<b>34686</b>	<b>23413</b>	<b>8778</b>	<b>4180</b>	<b>1658</b>	<b>14672</b>	<b>8451</b>	<b>4231</b>	<b>1926</b>	<b>748</b>	<b>360</b>

Source: Census 2001



Out of the total marginal workers, 66.48 per cent were employed in the primary sector. The elderly marginal workers employed in secondary and tertiary sectors were 17.48 and 16.04 respectively. In the rural areas, 71.83 per cent of the elderly marginal workers were employed in the primary sector, followed by secondary and service sectors with a participation of 15.21 per cent and 12.96 per cent respectively. But, in urban areas, only 40.54 per cent were involved in primary sector, whereas in secondary sector and tertiary sector it was 28.48 per cent and 30.98 per cent respectively. The participation of elderly marginal workers in secondary and tertiary sector in urban areas were twice that of rural areas

In the year 2001, among the total elderly marginal workers, 68.55 per cent were elderly men and 31.45 per cent were elderly women. In the year 1991, 56.98 per cent were elderly men and 43.02 per cent were elderly women. Thus, in the year 2001 the participation of elderly women in economic activity as marginal worker got decreased and that of elderly men got increased. In the rural areas, economic participation of elderly men as marginal worker was increased to 69.35 per cent in 2001 from 56.67 per cent in 1991. To present the opposite side of it; the participation of elderly women marginal workers in economic activity got reduced to 30.65 per cent in 2001 from 43.33 per cent in 1991. In the urban areas, the elderly men constituted 64.67 per cent and elderly women constituted 35.33 per cent of the elderly marginal workers. From the year 1991 to 2001, the economic participation of elderly male marginal workers got increased and economic participation of elderly female marginal workers got reduced.

In the year 2001, 74.49 per cent of the elderly marginal workers were young-old elderly. In the year 1991, the involvement of the young-old elderly was 77.54 per cent and older-old's involvement was 17.43 per cent. In the year 2001, the involvement of older-old and oldest-old categories involvement were 21.59 per cent and 3.92 per cent respectively. Thus, at the beginning of the twenty first century, young-old elderly oldest-old appeared to have a decreased representation, whereas the older-old's involvement got accelerated. In rural areas, 74.17 per cent of the elderly marginal workers were constituted by the elderly in the age group of 60-69. Among them both elderly men and elderly women were highly participating in agricultural activities and the lowest participation was in the electricity, gas, and water supply industries. In this industry the young-old elderly women made zero participation. Elderly in the age group of 70-79 constituted 21.87 per cent of the elderly marginal workers in the rural areas. In this age group, elderly men registered highest, almost same, involvement in the agricultural activities and cultivation. Here, both men and women have least participation in the industrial categories of electricity, gas, and water supply. The oldest-old elderly occupied

3.96 per cent of the rural elderly marginal workers. Here, elderly men expressed highest participation in cultivation, whereas elderly women manifested highest participation in agricultural activities. Elderly men and elderly women had zero per cent involvement in electricity, gas, and water supply industry.

In urban areas, 76.09 per cent of the elderly marginal workers were constituted by the elderly in the age group of 60-69. The urban young-old elderly men were highly involved in plantation, livestock, forestry, fishing, and hunting, followed by agricultural activities. While the young-old elderly women were highly engaged in agricultural activities followed by non-household manufacturing industries. Elderly in the age group of 70-79 constituted 20.26 per cent of the elderly marginal workers in urban areas, where as the elderly aged 80 years and above constituted 3.65 per cent. Older-old men intimated higher engagement like the young-old urban elderly. But elderly women in the age group of 70-79 communicated the highest involvement in non-household manufacturing industries. Elderly men aged 80 years and above revealed their higher priority in the industry of plantation, livestock, forestry, fishing, and hunting followed by whole sale and retail trade. But oldest-old women had high involvement in the last industrial category which includes education, human health and social work activities, activities of extra territorial organisations and bodies, and public administration and defence. The elderly marginal workers in the three age groups obviously expressed a lowest involvement in electricity, gas, and water supply industry, especially the oldest-old category have zero involvement in it. The oldest-old women exposed zero involvement not only in electricity, gas, and water supply industry, but also in mining and quarrying and in transport, storage and communication.

### **4.6.3 Involvement of the Elderly Marginal Workers in the Economic**

#### **Activities (Census 2011)**

In the census year 2011, the economic activities were categorised into 24 industrial categories. Industrial categories of both primary and secondary sector remained as the same in 2011 from that of 2001, while service sector had major additions. They were accommodation and food service activities, information and communication, financial and insurance activities, professional, scientific, and technical activities, administrative and support service activities, arts, entertainment and recreation, activities of households as employers and activities of extra-territorial organisation and bodies.

Table 4.7 construes the number of senior citizens who are engaged in various economic activities in the year 2011. The data was primarily classified, based on their place of residence. Then, the data was divided as was done in sessions of 4.1, 4.2, 4.3 and 4.4, and the age group was further sub-divided based on their gender.

In the year 2011, 5.89 per cent of the elderly population were marginal workers. In the year 2001, 5.23 per cent of the elderly population was marginal workers, which was an increase from 3.12 per cent in the year 1991. From 1991 the involvement of senior marginal workers had an increasing trend. Among the elderly marginal workers in Kerala, 63.44 per cent were rural elderly and the remaining 36.56 per cent were urban elderly. 24.27 per cent of the marginal workers were agricultural labourers and it had highest participation. 16.17 per cent of the elderly marginal workers were engaged in plantation, livestock, forestry, fishing, and hunting. Elderly cultivators and elderly engaged in construction industry exposed same rate of participation of 13 per cent. Elderly marginal workers manifested least participation in information and communication, household industry and wholesale and retail household industry.

In the year 2011, elderly marginal workers engaged in primary sector were 54.45 per cent and the elderly marginal workers engaged in secondary and tertiary sectors were 24.03 per cent and 21.52 per cent respectively. In the year 2001, 66.48 per cent were employed in the primary sector. The elderly marginal workers employed in secondary and tertiary sector were 17.48 and 16.04 respectively. The proportion of elderly marginal workers engaged in primary sector was decreasing overtime, where as their involvement in secondary and tertiary sectors was increasing. In rural areas, 63.71 per cent of the elderly marginal workers were engaged in primary sector. The involvement of the elderly marginal workers in secondary and tertiary sectors was 21.71 per cent and 14.97 per cent respectively. In urban areas the involvement of the senior marginal workers in primary sector was 38.39 per cent, which was lower than that of in the rural areas. Elderly marginal workers registered least participation in secondary sector with 28.72 per cent and the remaining 32.89 per cent were involved in the service sector. Involvement of elderly marginal workers in secondary and service sector in the urban areas were higher than in rural area.

**Table 4.8**  
**Activity Participation of the Elderly Marginal Workers (Census 2011)**

<b>Industrial Category of marginal workers by place of residence and sex, 2011</b>												
<b>Industrial Category</b>	<b>Rural</b>						<b>Urban</b>					
	<b>60-69</b>		<b>70-79</b>		<b>80+</b>		<b>60-69</b>		<b>70-79</b>		<b>80+</b>	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Agricultural Labourers	21342	14053	5662	2887	892	497	7000	4223	2059	841	358	155
Cultivators	14175	4024	6190	1390	1531	373	3331	739	1484	256	331	51
Plantation, Livestock, Forestry, Fishing, Hunting, and allied activities	14241	6264	3698	1304	690	159	8011	2441	2234	527	307	70
Mining and Quarrying	362	72	40	10	3	2	172	44	24	14	5	0
Manufacturing - Household Industries	1809	1670	640	318	107	62	1166	1247	456	331	92	40
Manufacturing - Non-Household Industries	2928	3394	746	659	67	164	3699	3389	1057	800	155	152
Electricity, Gas, steam, and Air conditioning Supply												
Water Supply; (Sewerage, Waste Management, and remediation activities)	77	33	13	10	8	2	146	69	20	17	8	2
Construction	6224	11356	1272	1456	209	191	6074	5016	1164	598	155	92
Wholesale and retail trade - Household Industries	9	3	0	0	0	0	12	2	0	0	0	0
Wholesale and retail trade - Non-Household Industries	3462	853	966	253	169	53	4709	932	1265	281	204	35
Transportation and Storage	1208	137	112	30	23	0	1882	205	252	19	41	2
Accommodation and food service activities	1143	238	200	49	34	25	1288	208	251	39	45	6

(Continued from table 4.4.3)

information and Communication - Household Industries	0	6	0	0	0	0	15	0	0	0	0	0
Information and Communication - Non-Household Industries	55	2	9	0	3	2	149	31	15	6	3	0
Financial and Insurance activities												
Real Estate activities												
Professional, Scientific, and technical activities	446	66	88	12	17	0	660	96	121	18	17	6
Administrative and support service activities												
Public Administration and Defence, Compulsory Social Security	549	138	89	22	26	15	851	181	181	28	27	9
Education												
Human Health and Social Work activities	403	548	117	161	52	52	533	736	185	139	30	35
Arts, Entertainment, and recreation												
Other Service Activities												
Activities of Households as Employers: Undifferentiated Goods and Services												
Activities of Extra-Territorial Organisations and Bodies	3408	4796	1119	1535	307	449	4005	5682	1645	1726	396	516
<b>Total</b>	<b>71841</b>	<b>47653</b>	<b>20961</b>	<b>10096</b>	<b>4138</b>	<b>2046</b>	<b>43703</b>	<b>25241</b>	<b>12413</b>	<b>5640</b>	<b>2174</b>	<b>1171</b>

Source: Census 2011

In the year 2011, of the total marginal workforce, 62.83 per cent were elderly men and 37.17 per cent were elderly women. The proportion of the involvement of the marginal workers displayed a declining trend as an analysis of the data from the Census year 1991 to the Census year 2001 was made. The overall involvement of the elderly women marginal workers intimated an increased contribution during the Census year 2001. At this Juncture, it can be observed that the engagement of the elderly women marginal workers has portrayed a positive tendency and that the elderly women keep themselves occupied. This may be due to the fact that elderly women intend to be economically more independent and financially useful to their families and the society at large. In rural areas, 61.85 per cent of the elderly marginal workers were elderly men and 38.15 per cent were elderly women. In urban areas, the involvement of the elderly men and elderly women in marginal workforce were 64.52 per cent and 35.48 per cent respectively. Thus, both urban and rural areas ensure same participation of the elderly women in economic activities.

In the year 2011, 76.27 per cent, 19.88 per cent and 3.85 per cent of the elderly marginal workers were constituted respectively by the young-old elderly, older-old elderly and the oldest-old elderly. From the year 2001 to 2011, the involvement of the young-old elderly was increased but do not cross the involvement of the young-old elderly marginal workers in the year 1991. The involvement of the older-old marginal workers was decreased from 21.59 per cent from the year 2001 to 19.88 per cent along with a stagnant involvement of the oldest-old marginal workers from the year 2001 to the year 2011. The young-old elderly, older-old elderly and the oldest-old elderly were highly engaged in the primary sector especially as agricultural workers.

The involvement of the young-old elderly, older-old and the oldest-old marginal workers in the rural areas were 76.24 per cent, 19.82 per cent and 3.94 per cent. Thus, the involvement of the young-old elderly marginal workers was increased and that of the older-old elderly marginal workers were reduced. The involvement of the oldest-old elderly marginal workers depicts a constant participation. In urban areas, 76.31 per cent of the marginal workers were young-old elderly, which shows more or less equal participation from the year 2001. In the year 2011, the involvement of the older-old marginal workers was 19.98 per cent which was a slight decrease from 20.26 from the year 2001. In the year 2011, the involvement of the oldest-old marginal workers was 3.65 per cent. Thus, in the year 2011 the involvement of the older-old and oldest-old marginal workers shows more or less constant involvement in economic activities, but the involvement of the young-old elderly portrays ups and downs in their involvement. Since, the young-old elderly were the healthier and more active than the

older-old and the oldest old elderly, the authorities should focus on the young-old elderly to get their involvement enhanced.

After analysing the involvement of senior citizens in economic activities, it is necessary to analyse the relation between the involvement of senior citizens because the participation of the elderly portrayed variations. A correlation between the population of the senior and the working population of senior was conducted to know the strength of the senior working population in Kerala. The descriptive statistical analysis using the tool of correlation between the proportions of the elderly workers and elderly population.

**Table 4.9**  
**Correlation Between the Elderly Worker’s Population Proportion and the Elderly Population Proportion**

Construct	Elderly worker's proportion	Elderly population proportion
Elderly Worker's Proportion	1	-0.5449
Elderly Population Proportion	-0.5449	1

Source: Computed from Census 1991, 2001, 2011

The correlation between the proportion of the elderly working population and total elderly population is explicated in table 4.8. Elderly working population is calculated by adding the population of elderly main workers and elderly marginal workers. In the present study, the analysis is done in relative terms. The formula used to calculate the proportion of the population of the elderly workers was:

$$\text{Elderly Worker's Population Proportion} = \frac{\text{Elderly Worker's Population}}{\text{Elderly Population}}$$

$$\text{Elderly Population Proportion} = \frac{\text{Elderly Population}}{\text{Total population}}$$

The correlation between the elderly working population and elderly population was -0.5449, which means that there exists a negative moderate relation between the elderly working population and the elderly population. In Kerala, the growth in elderly population was

increasing and its proportion to total population was increasing at an increasing rate. The population decline in the child population was the major contributing factor for this increase. But, as the population of elderly increases, such subsequent increase in the elderly working population was not visible in Kerala for the last three decades. That is why there existed a negative correlation between the proportion of the elderly working population and the proportion of the elderly population.

In session 4.1, the trend of growth in the elderly population was analysed for the working population and child population. The population of elderly was increasing at a rate which was greater than that of the working population. The estimations revealed that the growth in working population started to decline, because the child population in Kerala was on a negative growth. Thus, the burden on the working population has increased. Kerala is a state with high Index of Ageing and high old-age dependency ratio. Thus, the unconditional increase in the elderly population with a decreasing working population has harmed the working population and the economy of Kerala predominantly.

#### **4.7 Summary of the Chapter**

The chapter explored the dependency ratio, the ageing index and the involvement of the elderly persons in the economic activities of the economy of Kerala based on the Census data of the years 1991, 2001, and 2011. The Census data of 2021 could not be analysed due to the fact that it was not available at the time of the analysis of the data. The state of Kerala has witnessed an early demographic transition and the state is in the stage of rapidly growing elderly population with negative growth of child population. The working population of Kerala has started its process of slow growth and decrease. The state of Kerala is rapidly ageing than any other state in India. The proportion of the elderly working population does not get increased due to the fact that their number is increasing day by day in Kerala. This indeed is a panic situation because it affects the contribution of the working population and their productivity. The chapter based on the secondary data analysed that the proportion of the population who turn sixty and above should work to keep themselves productively engaged. The study has analysed that the elderly women outnumber the elderly men whereas in economic participation the elderly men outnumber the elderly women. The study has found out that after the age of sixty, the elderly women were more vulnerable than the elderly men. Among the three elderly age groups identified in the study such as the young-old elderly (60-69 years), older-old elderly (70-79 years) and oldest-old (80 years and above) elderly, the young-old elderly engaged in the economic activities than the others. The study has analysed that the young-old elderly



population (60-69 years) of Kerala are a valuable, healthier and more active resource than the other two age groups. The participation of the elderly in rural areas was lower than that of in urban areas. The study has found out that the elderly population in rural areas were more vulnerable than the elderly in the urban areas based on the Census data of 1991, 2001 and 2011.

## **Chapter 5**

# **Economic Independence and Encouragement for Productive Engagement**

## **5.1 Introduction**

The previous chapter of the study dealt in detail about the involvement and economic activities of the senior citizens of the rural areas of Kerala, making an analysis using the available secondary data from the Census of India. It is necessary to proceed to the analysis of the primary data relating to the aspects such as socio-economic profile of the senior citizens, their level of economic independence, major spending, influencing factor for their discretion for the productive engagement and the respective outcome on individual, family and society by engaging in productive activities. As stated in the methodology of the study in chapter one, section (1.10) the two sample districts selected for the study are Idukki and Wayanad. Further, four panchayats were selected from each of these districts, from the rural areas. For this purpose, the panchayats - Kumli, Mankulam, Vattavada and Kanthalloor – were selected from the district of Idukki and the Panchayats – Noolppuzha, Thirunelli, Thondernadu and Thariode – were selected from the district of Wayanad. Before getting into the analysis of primary data collected, a brief profile of the two districts and of the panchayats from the respective districts are sketched out.

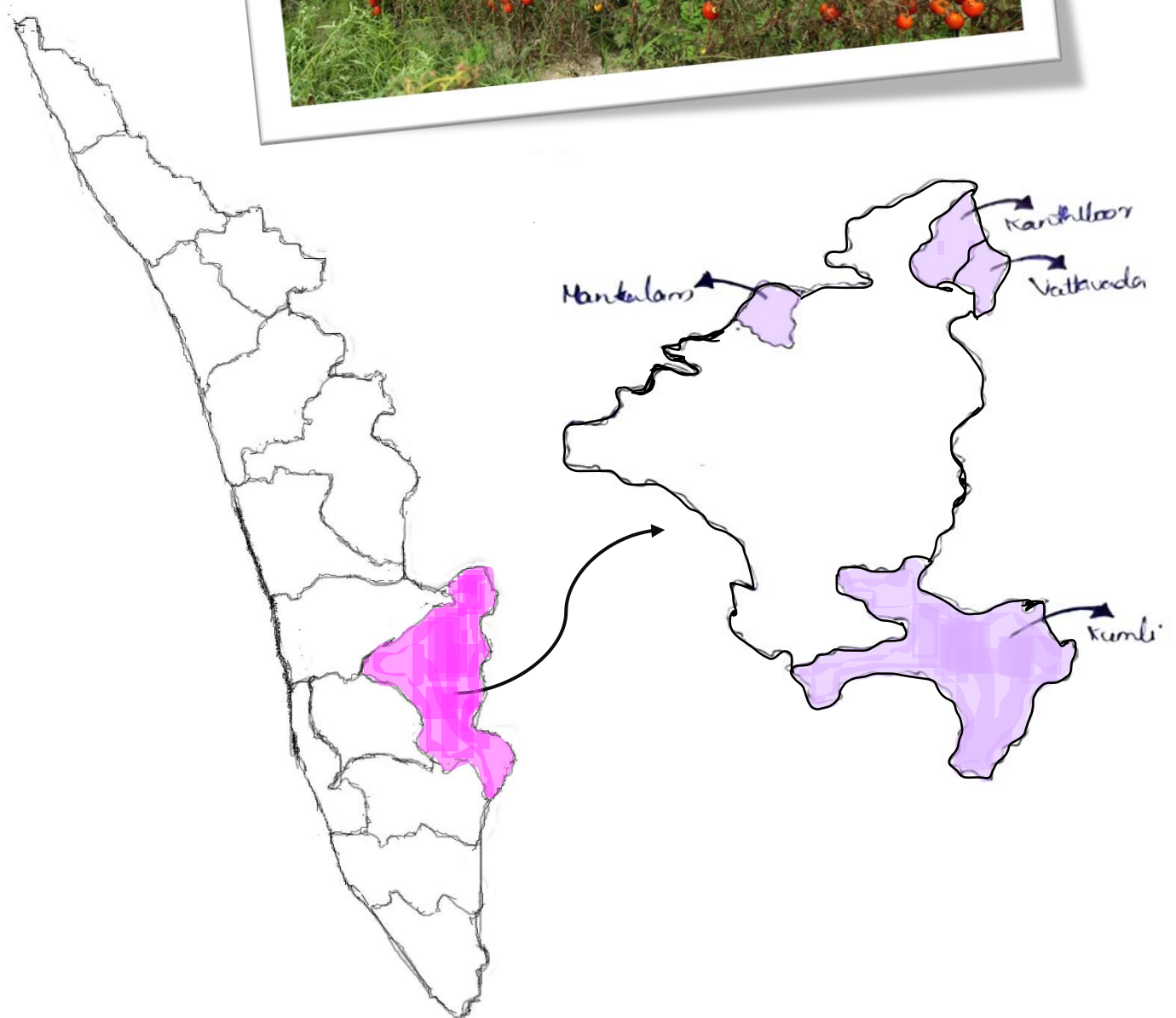
## **5.2 Area of the Study**

Specifying the properties of the area of the study help to understand the environment from which the data collected. Hence, this session is very crucial to comprehend the relevance of the present study. Providing detailed information about the characteristics, boundaries and attributes of the study area increases the reliability and validity of the research. The features of the study area create an impact on the methodology of the study and some results were unique to these study areas. Thus, describing the features of the study helps to avoid the misinterpretation of the results. In a nutshell detailing the characteristics of the study area contributes to the overall clarity, transparency, and credibility of the research.

### **5.2.1 The District of Idukki**

The district of Idukki was formed on 26<sup>th</sup> January 1972, by combining the taluks of Devikulam, Udumbanchola and Peerumedu of the antecedent district of Kottayam and the taluk of Thodupuzha of the erstwhile district of Ernamkulam. The Malayalam word “Idukku” meaning ‘a canyon’ is from where the district of Idukki derived its name.

## Map of the District of Idukki



\*The arrow marked is the sample areas of the study

Idukki district is a part of the Central Kerala Coast Micro Region among the state's natural areas. The five sub-microregions in the state are the Anamalai Forest Hills, Marayoor Forest Hills, Cardamom Hills, Periyar River Basin, and Thekkedy Forest Hills. The district of Idukki is well-known for its hill stations, high mountains, deep valleys, and lush woods, much as the name implies.

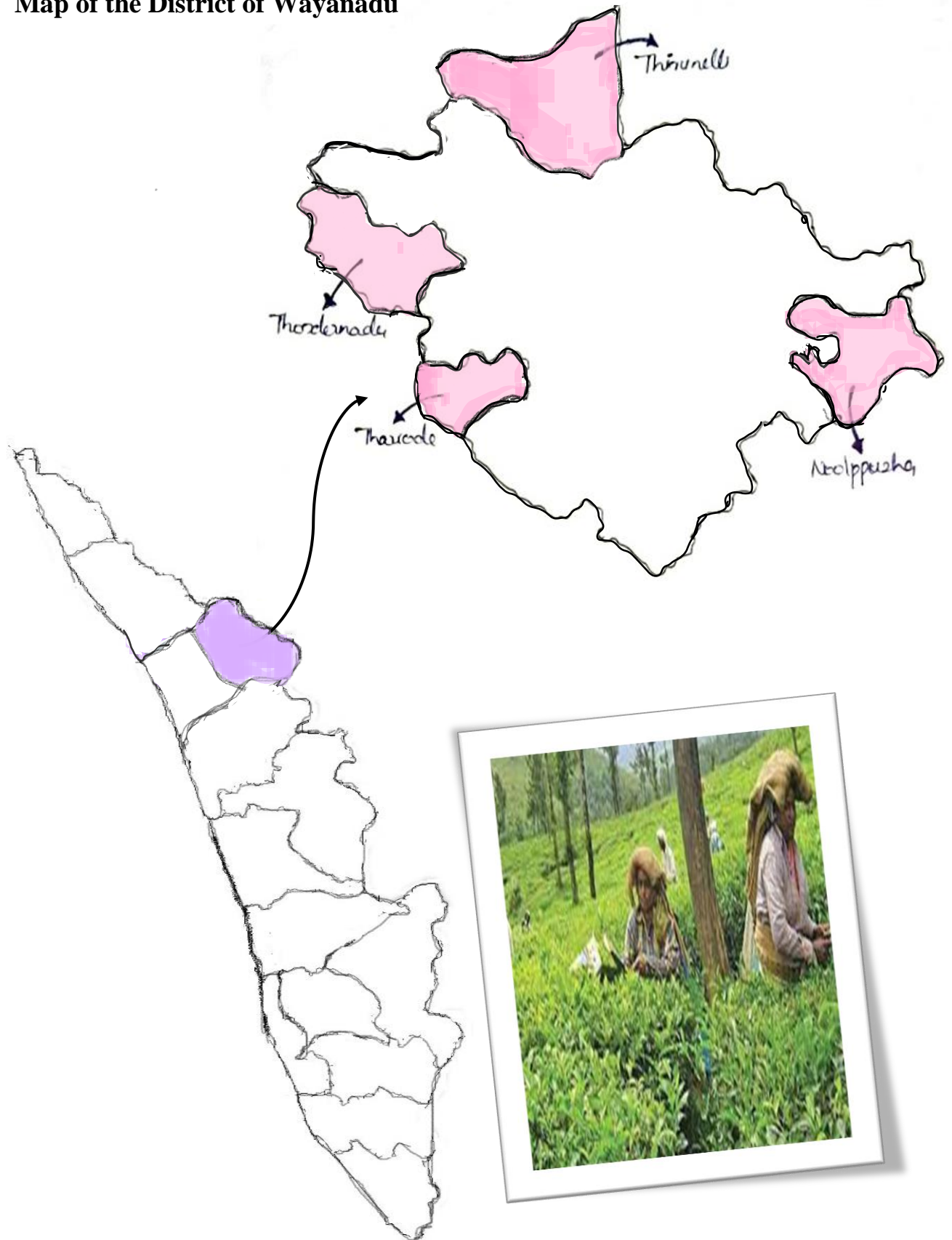
The State Archaeology Department of Kerala asserts that the distinctive features of the pre historic civilisation could be seen in the excavations at Marayoor, Thengakkal, Bison Valley, and Thondermalai. The dolmens and menhirs found in these locations provide evidence of the cultural sophistication and well-developed civilization of the Megalithic age's occupants. It is noteworthy that from ancient times till the present, the district of Idukki has played a significant role in the trade of spices like pepper and cardamom. The bounteous growth of pepper in the area attracted the East India Company and all the foreigners who came to Kerala.

The district of Idukki is popularly known as the Spice Garden of Kerala, has the second largest area of land and in terms of density of population is the lowest in Kerala. This is due to the fact that it is highly prone to natural calamities. The district's overall physical area is 4363.28 sq. km, or 11.2 per cent of the state's total geographic area, although only 3.3 per cent of the total population resides there. There were 1108974 people living in the district as a whole. Males make up 49.85 per cent of the overall population, while females make up the remaining 50.15 percent. In Idukki, SC and ST populations make up 24.2 per cent and 5.3 per cent of the total population, respectively. Adimali, Devikulam, Nedumkandam, Elemdesam, Idukki, Kattappana, Thodupuzha, and Azhutha are the 8 block panchayats, while Thodupuzha and Kattappana are the 2 municipalities. In Idukki, there are 52 grama panchayats and 68 villages.

### **5.2.2 The District of Wayanad**

Wayanad is renowned for its hiking and camping paths, caverns, sanctuaries, waterfalls, and other natural attractions. Wayanad is frequently referred to as the Ooty of Kerala because of its picturesque landscapes and year-round good weather. Manathavady, Sulthanbathery, and Vythiri Taluks were combined to form the 12th district of Kerala on November 1st, 1980. Wayanad derives its name from "Vayal Nadu," which translates to "the country of paddy fields." The district was created from what were formerly Kozhikode and Kannur.

## Map of the District of Wayanadu



\*The arrow marked is the sample areas of the study

The history of Wayanad goes back to ten centuries before the birth of Christ. Wayanad's early history is largely unknown. On the Wayanad Hills, there are evidences of the New Stone Age Civilization. The painted artwork and pictorial texts on the walls of the Edakkal Caves shed some light on those antiquated times. Fawcett claims that the particularly vulnerable tribal community such as Kurumbaras are responsible for the human and animal engravings on the rock walls. It is interesting to note that the district of Wayanad is home to the wild-hunting tribal communities such as Kurumbas, Kurichiyas and Panians. In Kerala, these communities are also known as “hill tribes”.

Wayanad district is located in the North Kerala Coast Micro Geography in terms of natural region. The district of Wayanad has Forested Hills and the Wayanad plateau are the two Sub-Micro Regions. The district's entire size is 2130 sq km, or 5.48 per cent of the state's overall geographical area. Only 40.74 sq. km of this district is covered by urban areas, with protected forests covering 787.87 sq. km of the total area. Despite its reputation for being a backward region, Wayanad produces some of the state's largest cash crops, including pepper, cardamom, coffee, tea, spices, and other condiments. Wayanad is predominantly an agrarian belt. The district's high-altitude location makes it ideal for varieties of horticulture cultivation. In Wayanad, the two main crops grown are rice and pepper. In Wayanad, plantation crops like coffee, tea, pepper, cardamom, and rubber are reasonably farmed. The cultivated crops in the district of Wayanad are distributed in such a way that, coffee contributes 84 per cent of the total production of Kerala, when it comes to ginger, cardamom and pepper, the contribution is 64 per cent, 4.6 per cent and 11 per cent respectively.

Animal husbandry has a lot of potential for expansion and is one of the industries that may quickly impact the economy and society in the rural areas of the district. An added advantage for the rich growth of cattle is the presence of thick forests and lush green land. Additionally, raising poultry as a secondary activity has enormous potential to boost the income of the rural residents. Wayanad lacks significant industries, making it a district with a low level of industrial development. The state's traditional industry is handicrafts, but there are only little opportunities to market the products.

Grama panchayats have a crucial role in the developmental efforts of the district, and in recent years, the rural population has advanced more generally in terms of economic, cultural, educational, and social spheres. At least four times a year, the grama sabha meets to discuss challenges and problems related to development. There are 3 taluks viz, (1) Vythiri, (2) Mananthavady and (3) Sulthanbathery and three municipalities viz, (1) Kalpetta, (2)

Sulthanbathery and (3) Mananthavady in the district of Wayanad. There are 4 block panchayats viz, (1) Mananthavady (2) Kalppetta (3) Sulthanbathery and (4) Panamaram and 23 grama panchayats and 49 villages in the district of Wayanad.

The demography of the district of Wayanad is quite distinct as is in the case of the geography of the district. The district makes the lowest estimated population in the state of Kerala. 816588 people live in Wayanad, which accounts for 2.45 per cent of the state's total population. 49.15 percent of the population is male, and 50.85 per cent is female. The ST population makes up 18.55 per cent, or 31 per cent of the state's total ST population, and 3.99 per cent constitutes scheduled caste community. The district's population density was 383 people per square kilometer as per the Census 2011. In terms of the state's urban population, Wayanad occupies the last position. Rural areas are home to 96.13 percent of the district's population. The Wayanad district thus exhibits a significant disparity between urban and rural populations.

For making the study more specific, four panchayats were selected based on population density, because low population density is a distinct feature of the rural areas. The four panchayats selected are Thirunelly, Thondernadu, Thariode and Noolpuzha.

### **5.3 Socio-Economic Profile of the Senior citizens in Rural Areas of Kerala**

The demographic transition towards an older population, the reduction in family size, increases in longevity, changes in living arrangements, and demands of industrial societies, weaken the traditional family supported network of dealing with the aged. Although family provided-assistance continue to play an important role, people tend to rely more on non-family resources to face the contingencies associated with old age, particularly in terms of care and income support. Government intervention is traditionally justified on the grounds that the market fails to offer appropriate provision and that redistribution to the poor is usually needed (Jose Alvarado, 1998).

#### **5.3.1 Demographic Profile of the Senior Citizens**

The senior citizens of Kerala belong to the major three religions of the state, such as Hinduism, Islam, and Christianity. A gender wise analysis is undertaken in this section. Of the total respondents, 53.12 per cent of the population were elderly women and 46.88 per cent were elderly men. The results of the primary survey relating to the sex composition of the senior citizens corroborate the trend of the findings of the population census of 2011. As per the census 2011, the elderly women outnumber the elderly men in Kerala. Though the statistics of population census relating to sex composition among the senior citizens differs (the elderly



men constitute 47.35 per cent and the elderly women constitute 52.65 per cent of the elderly in the age group 60-69) from the findings of the present survey, it establishes the fact that the elderly women constitute more than half of the elderly population in Kerala as in the census 2011.

**Table 5.1**  
**Religion of the Senior Citizens (Percentage are in Brackets)**

Sex	Religion			Total
	Christian	Hindu	Muslim	
<b>Female</b>	71 (18.49)	111 (28.91)	22 (5.73)	204 (53.12)
<b>Male</b>	69 (17.97)	90 (23.43)	21 (5.47)	180 (46.88)
<b>Total</b>	140 (36.46)	201 (52.34)	43 (11.2)	384 (100)

Source: Primary Data

Analyzing the religious composition of the senior citizens in Kerala as shown in table 5.1, there is a slight difference in the order of the share of the three major religions. Among the senior citizens, the religious distribution constitutes 36.46 per cent, 52.34 per cent and 11.2 per cent respectively for the Christianity, Hinduism and Islam. Table 5.1 makes it clear that the Hindus form the majority while the Muslims constitute the minority in the rural areas of Kerala. Hindus constitute the majority among the elderly men and the elderly women. In the three religions the elderly women occupy the major share, which again proves the sex composition of the senior citizens in the rural areas of Kerala.

A category wise religious population of senior citizens is illustrated in table 5.2. The four major categories such as Other Backward Class (OBC), general, Scheduled Tribes (ST) and Scheduled Caste (SC) constitute 42.71 per cent, 32.29 per cent, 14.33 per cent and 10.67 per cent, respectively. Among the Hindu and Muslim senior citizens, OBC category occupies the highest population shares with 26.04 per cent and 11.2 per cent respectively, while among the Christian senior citizens the general category constitutes the highest (26.56 per cent) and the ST category is the least (1.57 per cent). Among the Hindu senior citizens, the general category forms the least population shares with 5.73 per cent and the SC and ST constitute 7.81

per cent and 12.76 per cent, respectively. The general, SC and ST category among the Muslim Category were zero, because in the state of Kerala, Muslims belong to the OBC. Thus, in rural areas of Kerala, the OBC category dominates with Muslim and Hindu senior citizens, while the general category dominates with the Christian senior citizens.

**Table 5.2**  
**Category of the Senior Citizens by Religion (Percentage are in Brackets)**

Religion	Category				Grand Total
	General	OBC	SC	ST	
Christian	102 (26.56)	21 (5.47)	11 (2.86)	6 (1.57)	140 (36.46)
Hindu	22 (5.73)	100 (26.04)	30 (7.81)	49 (12.76)	201 (52.34)
Muslim	0	43 (11.2)	0	0	43 (11.2)
<b>Grand Total</b>	<b>124</b> <b>(32.29)</b>	<b>164</b> <b>(42.71)</b>	<b>41</b> <b>(10.67)</b>	<b>55</b> <b>(14.33)</b>	<b>384</b> <b>(100)</b>

Source: Primary Data

### 5.3.2 Marital Status

“Marital status of the elderly assumes special significance in the context of care in old age as it is known that those who are married fare better in all economic and social aspects than those who are single” (Prasad, 2009). The marital status of the senior citizens in the rural areas by a gender wise division is portrayed in table 5.3. The marital status includes three categories. They are married, unmarried and widower. Divorced senior citizens were not found in the rural areas of Kerala.

Of the senior citizens in the age group between 60-69 in the rural areas of Kerala, married, unmarried and widower category constitute 68.23 per cent, 3.12 per cent and 28.65 per cent, respectively. The female married elderly are 29.17 per cent and the male married elderly constitutes 39.06 per cent. The unmarried female senior citizens were 2.34 per cent in rural areas, while unmarried male senior citizens were only 0.78 per cent. The proportion of the female widower and the male widower were 21.61 per cent and 7.04 per cent, respectively.

**Table 5.3****Marital Status of the Senior Citizens (Percentage are in Brackets)**

Sex	Marital Status			Grand Total
	Married	Unmarried	Widower/ Widow	
Female	112 (29.17)	9 (2.34)	83 (21.61)	204 (53.12)
Male	150 (39.06)	3 (0.78)	27 (7.04)	180 (46.88)
<b>Grand Total</b>	<b>262</b> <b>(68.23)</b>	<b>12</b> <b>(3.12)</b>	<b>110</b> <b>(28.65)</b>	<b>384</b> <b>(100)</b>

Source: Primary Data

The widowhood is the major problem that the elderly face today, especially the elderly women. In the present study, the elderly female widow was three times more than that of the elderly widower. It is also validated in the survey “Building a Knowledge Base on Population Ageing in India (BKPAI)” conducted by United Nations Population Fund and its collaborating institutions – Institute for Social and Economic Change, Bangalore, Institute of Economic Growth, Delhi and Tata Institute of Social Sciences, Mumbai. This survey also finds out that “the percentage of widowed is far higher among elderly women than elderly men”. Thus, the situation of the elderly widow becomes more vulnerable than any other category of the elderly. Due to the loss of their spouse, they must depend more on others for meeting their subsistence. This finding of the present study also corroborates with findings of Syam Prasad in the work “Deprivation and Poverty Among Elderly in India” in 2009. “There is a direct relationship between age and loss of partner of the elderly. As the individuals move into old, they are more prone to the risk of losing their spouse. This loss of partner indeed puts them in a state of dependency and insecurity” (Prasad, 2009). Increased life span of women than men, women marry men older than themselves, and men are likely to remarry after the death of their spouse are the major reasons for this marked gender disparity in widowhood.

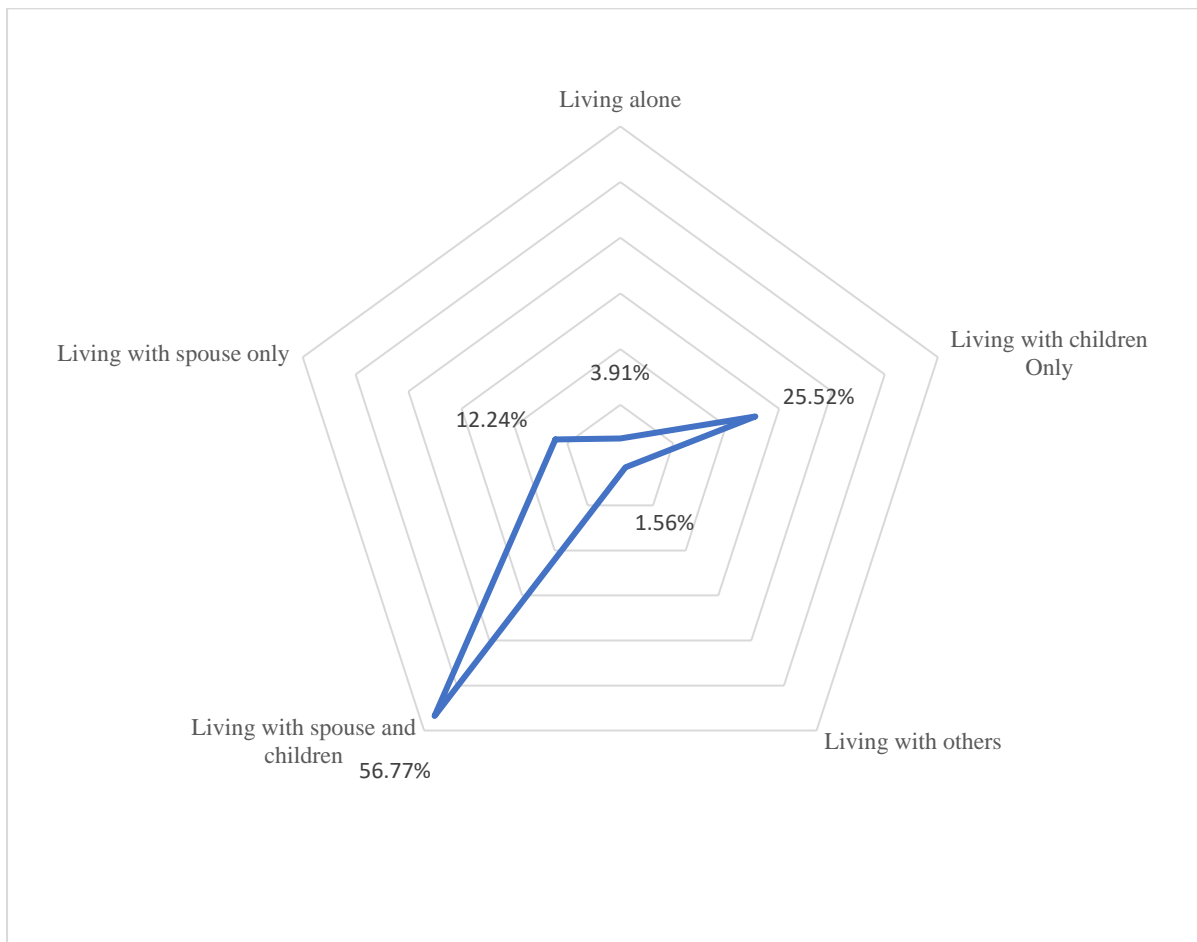
### **5.3.3 Living Arrangement of the Senior Citizens**

Living arrangement of elderly includes where they live, how long they live in this place, whether they live alone, or with family, or with somebody else, or they live in an institution. “The elderly, being less independent, need the care and support of others in several respects. Taking care of the elderly refers primarily to the emotional support; and on the other hand,

support given to the elderly refers to the financial and material support. The former type of support is expected from the families or persons who are close to the elderly person, whereas support is supposed to be a joint effort of immediate family and society. The care and support enjoyed by the elderly is linked to their residence” (Prasad, 2009).

Among the respondents, 56.77 per cent are living with their spouse and children and 25.52 per cent are living with their children. Senior citizens who are living with their spouse and children, are blessed for having members to care and support them. Elderly who are living with their children are also widowers. Among the senior citizens, 12.24 per cent were living with their spouse only. The major reason behind this situation was the children are migrating to the foreign countries and to other states of India for better social and economic opportunities by leaving their parents alone. The parents are also reluctant to leave their native place. Senior citizens living alone and living with others, who were mainly unmarried, constituted 3.91 per cent and 1.56 per cent respectively.

**Figure 5.1**  
**Living Arrangement of the Senior Citizens**



Source: Primary Data

Senior citizens generally are reluctant to move away from their native place. Thus, in the living arrangement of the elderly it is essential to analyse that how long they are living in the same area or house. At this juncture, it is to be understood that the senior citizens are much attached to their native place and the surrounding in which they have lived majority of their lives. In the state of Kerala, as migration is comparatively high, parents are left behind in majority of the houses, with the care takers since they refuse to accompany their children.

**Table 5.4**  
**Years of Living of the Senior Citizens in the Present Living Area**  
**(Percentage are in Brackets)**

No. of Years	Gender		Grand Total
	Female	Male	
<b>From born</b>	57 (14.84)	124 (32.29)	181 (47.13)
<b>10 years and above</b>	125 (32.55)	40 (10.41)	165 (42.96)
<b>5-10 years</b>	8 (2.08)	9 (2.34)	17 (4.42)
<b>1-5 Years</b>	8 (2.08)	6 (1.57)	14 (3.65)
<b>Less than one year</b>	6 (1.57)	1 (0.27)	7 (1.84)
<b>Grand Total</b>	<b>204</b> <b>(53.12)</b>	<b>180</b> <b>(46.88)</b>	<b>384</b> <b>(100)</b>

Source: Primary Data

The study finds out that 47.13 per cent and 42.96 per cent of the senior citizens were living their place where they are born and living there for above 10 years. These two categories together contribute 90.09 per cent of the respondents, which indicates the reluctance of the senior citizens to move to other places by leaving their native place. Men (32.29 per cent) supposed to occupy the highest proportion among the persons living in their own places where they are born. Only 14.84 per cent of the elderly women were still living in their birth place. It is because of the custom that after marriage, women have to leave their home and has to become the part and parcel of the home of the house. That is why the elderly women (32.55 per cent) occupies the highest proportion among the persons living more than 10 years. Among the respondents, the senior citizens living in the place for 5-10 years, 1-5 years and less than one

year come up to 4.42 per cent, 3.65 per cent and 1.84 per cent respectively. This repeated movement of the seniors from one place to another place badly affect their mental and physical health. In the evening of their life, the senior citizens require a happy and comfortable living moving about in the familiar surroundings.

### **5.3.4 Education of the Senior Citizens**

Oxford dictionary defines education as “the process of receiving or giving systematic instruction, especially at a school or university” and literacy as “the ability to read and write”. The present study finds out that 19.53 per cent of the senior citizens have no formal schooling. It does not mean that they are illiterate. Even though, they have no school years, they can read and write. They were made literate through the “Saksharatha Mission” (Literacy Mission). Kerala government launched the “Saksharatha Mission” with the propagating slogan “Education for All and Education Forever”. 12.76 per cent of the elderly women had no schooling, which is the double of the elderly men who have no formal education. This finding of the present study is substantiated by the survey on “Building a Knowledge Base on Population Ageing in India (BKPAI)” conducted by United Nations Population Fund and its collaborating institutions, Institute for Social and Economic Change, Bangalore, Institute of Economic Growth, Delhi and Tata Institute of Social Sciences, Mumbai. “The educational status of the elderly shows that one fifth of the elderly in Kerala does not have any formal education, the proportion among the elderly women being higher” (Building a Knowledge Base on Population Ageing in India, 2013).

The analysis on the education of the senior citizens brought out the finding that, 59.12 per cent have education of below Secondary School Leaving Certificate (SSLC) and 13.02 per cent have completed the tenth class. In the rural areas of Kerala, 1.56 per cent and 0.52 per cent of the elderly have professional qualification and post graduate degree. The present study finds out zero elderly women are postgraduates. Here, a trend can be drawn that as the degree of education goes higher as the proportion of educated senior citizens was less. It indicates that they are not aware of the value of education and above all that, higher education cannot be afforded by them, especially in the case of the senior citizens in the rural areas.

During the decades of 1950s and 1960s and before that for that sake, education was not considered as a determining factor of the quality of life in the rural areas of the state of Kerala. Parents did not take much initiative and interest to send their children to school during those days especially in the rural areas. In aristocratic families, women were not permitted to get educated and was also not granted permission to work and earn for their family. Education did

not give much dignity to women in those days. So, majority of the senior citizens who were born around 1950s and 1960s did not have a good formal education. But today's senior citizens know the value of education. Even though, they were not highly educated, they tried to educate their children within their limits.

**Table 5.5**  
**Education of the Senior Citizens (Percentage are in Brackets)**

Level of Education	Gender		Grand Total
	Female	Male	
No Schooling	49 (12.76)	26 (6.77)	75 (19.53)
Below SSLC	119 (30.99)	108 (28.13)	227 (59.12)
SSLC	20 (5.21)	30 (7.81)	50 (13.02)
Higher secondary	8 (2.08)	3 (0.78)	11 (2.86)
Degree	5 (1.3)	8 (2.08)	13 (3.38)
PG	0	2 (0.52)	2 (0.52)
Professional Education	3 (0.78)	3 (0.78)	6 (1.56)
<b>Grand Total</b>	<b>204</b> <b>(53.12)</b>	<b>180</b> <b>(46.88)</b>	<b>384</b> <b>(100)</b>

Source: Primary Data

### 5.3.5 Personal Income of the Senior Citizens

Personal income explains the sources of money income needed to fulfill their basic needs. Social security pension of the government is the major source of income for the senior citizens. They also earn income through employment in the organized and unorganized sector and self-employment. They also receive money as gifts and pocket money from their relatives and friends.

As the study analyses further on the personal income of the senior citizens, it is to be noted that pension is the only source of income for 48.7 per cent of the senior citizens and 4.7 per cent of the senior citizens do not have any source of income and have to depend on others such as the members of their family, siblings, relatives and friends. Senior citizens who constitute the category of female is the one who receive the highest proportion of income as

pension – with 37.7 per cent. It is peculiar to note that 2.87 per cent of the senior citizens who are women do not get any kind of pension and their male counterparts constitute only 1.3 per cent. In the case of senior citizens who receive pension as well as earn income through self-employment comes up to 5.73 per cent and 1.3 per cent respectively of female and male are done. The study has found that only 0.26 per cent of the senior citizens earn income both by self-employment and working outside their house as part-time employees. At this juncture it can be observed that such senior citizens who make an earning both through self-employment and as part time employees were quite proud of themselves and their level of confidence was very high. Their faces were blooming as they answered the survey. Thus, it can be concluded that earning an income makes one’s life quite satisfactory, happy, and contented especially in the evening of one’s life.

**Table 5.6**

**Personal Income of the Senior Citizens (Percentage are in Brackets)**

Sources of Income	Gender		Grand Total
	Female	Male	
No income	11 (2.87)	7 (1.83)	18 (4.7)
Pension	118 (30.73)	69 (17.97)	187 (48.7)
Pension + Remittances from others	2 (0.52)	3 (0.78)	5 (1.3)
Pension + Self employment	32 (8.33)	46 (11.98)	78 (20.31)
Pension + Wage/ Salary	35 (9.11)	25 (6.51)	60 (15.62)
Pension + Wage/Salary + Self employment	3 (0.78)	5 (1.3)	8 (2.08)
Self-employment	2 (0.52)	20 (5.21)	22 (5.73)
Wage/ Salary	1 (0.26)	4 (1.04)	5 (1.3)
Wage/Salary + Self employment	0	1 (0.26)	1 (0.26)
<b>Total</b>	<b>204</b> <b>(53.12)</b>	<b>180</b> <b>(46.88)</b>	<b>384</b> <b>(100)</b>

Source: Primary Data



The study inferred that, there is a significant difference in the sources of income for the elderly men and elderly women. This difference in the sources of income for the elderly men and elderly women were also detected in the survey on “Building a Knowledge Base on Population Ageing in India (BKPAI)”. The implications of having a personal income are different for the elderly men and elderly women. Having no personal income for men may indicate economic vulnerability whereas this may not be the case for women. With increasing wealth quintiles, the proportion of income increases whereas the opposite is true for women. This indicates that gender dynamics involved in reporting personal income”(Building a Knowledge Base on Population Ageing in India, 2013).

The study also finds out that the senior citizens are highly engaged in self-employment rather than working in an organized sector. It attributes to the geographical feature of the rural area and the senior citizen’s desire to have an active and healthy life. The main characteristic of the rural area is low population density, and the people are highly engaged in primary activities like agriculture, cultivation, and plantation. The senior citizens prefer to work in the land owned by themselves or their family. It is less risky and offers more satisfaction than other works. Thus, the senior citizens prefer for self-employment more. At this juncture, it can be noted that pension and income earned through employment and self-employment were the major source of income for the senior citizens especially in the case of the elderly men in the rural areas of Kerala. This inference is also backed up with the observations of the survey on “Building a Knowledge Base on Population Ageing in India (BKPAI)”. “The sources of income data showed that transfer of income (employers’ pension and social pension) is the major source of income in the case of the elderly women whereas both transfer income and factor income (income from their own earnings) are the important sources in the case of the elderly men from rural areas” (Building a Knowledge Base on Population Ageing in India, 2013).

**Table 5.7**

**Social Security Pension (Percentage are in Brackets)**

<b>Construct</b>	<b>No</b>	<b>Yes</b>	<b>Total</b>
<b>Old-age pension</b>	147 (38.28)	237 (61.72)	384 (100)
<b>Pension other than old age pension</b>	283 (73.69)	101 (26.29)	384 (100)

Source: Primary Data

For 88.01 per cent of the senior citizens, social security pension is the major source of income. The pensions they receive are the old-age pension, widow pension, agriculture labour pension, construction worker's pension, pension to unmarried women above 50 years, pension for the physically challenged persons, and service pension. Old-age pension was introduced by the government of India to give comfort to the focused group who are aged sixty years and above. Only 61.72 per cent of the senior citizens were entitled to receive the old age pension and the remaining 38.28 per cent did not receive old age pension. 26.29 per cent of the senior citizens received pension other than old-age pension and the remaining 11.99 per cent of the senior population do not receive any social security pension.

### 5.3.6 Personal Income of the Senior Citizens Before the Age of Sixty

In this session, the personal income of the current senior citizens, before arriving at the age of sixty are dealt with. Here, the sources of their income were social security pension, wage, or salary for paid employment in the organized and unorganized sector and self-employment. Those who engaged in self-employment are predominantly engaged in agriculture at the same they also find time to go for paid employment outside their house either in the organized or unorganized sector. The study also found out that there were people who had no income at all and had to depend on others.

**Table 5.8**

**Sources of Personal Income Before the Age of Sixty (Percentage are in Brackets)**

Sources of Income	Gender		Total
	Female	Male	
<b>No income</b>	82 (21.35)	0	82 (21.35)
<b>Pension</b>	2 (0.52%)	0	2 (0.52)
<b>Pension + Wage/ Salary</b>	1 (0.26)	0	1 (0.26)
<b>Self-employment</b>	31 (8.07)	61 (15.88)	92 (23.95)
<b>Wage/ Salary</b>	77 (20.06)	88 (22.93)	165 (42.99)
<b>Wage/Salary + Self employment</b>	11 (2.86)	31 (8.07)	42 (10.93)
<b>Total</b>	<b>204</b> <b>(53.12)</b>	<b>180</b> <b>(46.88)</b>	<b>384</b> <b>(100)</b>

Source: Primary Data

Among the respondents, 21.35 per cent constitute “the no income category” and they are all women. No elderly men received either pension or lived without income. Elderly women engaged in self-employment, working and both self-employment and working constitute 8.07 per cent, 20.06 per cent and 2.86 per cent respectively. Before the age of 60, 0.52 per cent of the elderly women received social security pension and 0.26 per cent of the elderly women worked with pension. Elderly men engaged in self-employment, working, and engaged in both self-employment and working make 15.88 per cent, 22.93 per cent and 8.07 per cent respectively. The study finds out that the number of the senior citizens engaged in working and self-employment were decreased after they turned sixty, especially the elderly women. Thus, the contribution of the senior citizens in the economic activities get reduced as they turn sixty years and above.

### 5.3.7 Financial Dependence of the Senior Citizens

Financial independence is a crucial factor in determining the status of the senior citizens. The study defines financial independence as “Money needed to meet their basic needs were earned or retained by themselves and no need to depend on others for financial needs”. At the age of sixty, if they attain financial independence, then they have a successful ageing. It does not mean that all the elderly who are dependent are suffering severe financial issues. Their dependency status varies significantly by their place of residence and the surrounding in which they live.

**Table 5.9**

**Level of Financial Dependence of the Senior Citizens (Percentage are in Brackets)**

Level of Dependence	Gender		Total
	Female	Male	
<b>Fully Dependent</b>	109 (28.38)	51 (13.28)	160 (41.66)
<b>Independent</b>	27 (7.03)	72 (18.75)	99 (25.78)
<b>Partially dependent</b>	68 (17.71)	57 (14.85)	125 (35.56)
<b>Total</b>	<b>204</b> <b>(53.12)</b>	<b>180</b> <b>(46.88)</b>	<b>384</b> <b>(100)</b>

Source: Primary Data

The study finds out that 25.78 per cent of the senior citizens in the rural areas of Kerala are financially independent. Financially independent elderly men (18.75) were twice that of the elderly women (7.03). Among the remaining dependent senior citizens, 41.66 per cent were financially fully depending on others and 35.56 per cent were partially depending. Elderly women are the highest proportion than the elderly men in partially dependent and fully dependent senior citizens with 17.71 per cent and 28.38 per cent, respectively. Elderly men form 14.85 per cent and 13.28 per cent in partially dependent and fully dependent senior citizens, respectively.

In rural areas of Kerala, the elderly women were more fully or partially dependent on others than the elderly men. It is a crucial issue attributable to various social, economic, and cultural factors. Among the rural communities in Kerala, the existing traditional gender roles and norms have limited the opportunities for women to earn. In rural areas, the opportunities for education and employment have historically been limited and they have been engaged in unpaid household work or informal jobs. Beside these, the major contributing reason for this situation among the elderly women was that they elderly women take back from the labour force after the age of sixty. Thus, women were missing from the mainstream of society during their autumn years, and later they were labelled as the most vulnerable category of society. Concisely, a multi-faceted approach which involves government initiatives, social involvement and individual well-being is obligatory to address the issue of financial independence of the senior citizens in the rural areas of Kerala.

### **5.3.8 Monthly Income of the Family**

Monthly income of the family was calculated based on the income in the ration card. Due to limited income opportunities and specialization, the income of the senior citizens in rural areas tends to be lower than that of the senior citizens in urban areas. Monthly income of the senior citizens significantly varies depending on the source of income, kind of activity they have engaged, education, support from the family, access to institutions and services and socio-economic environment of the society.

In the rural areas of Kerala, 44.27 per cent of the monthly family income of the senior citizens was below one thousand. Senior citizens, whose monthly family income which was between ₹1000-5000 and between ₹5000-10000 were 35.42 per cent and 14.42 per cent, respectively. It was quite surprising to note that only 5.72 per cent of the senior citizens have monthly family income above ₹10,000. Senior citizens were regarded as poor, deprived, and

dependent. Since, they lived in rural areas their children were also a part of this vicious circle of low income.

**Table 5.10**  
**Monthly Income of the Family**  
**(Percentage are in Brackets)**

Monthly income of the family	Grand Total
Below 1000	170 (44.27)
Between 1000-5000	136 (35.42)
Between 5000-10000	56 (14.58)
Above 10000	22 (5.72)
<b>Grand Total</b>	<b>384</b> <b>(100)</b>

Source: Primary Data

### 5.3.9 Contribution of the Senior Citizens to the Household Expenditure

Senior citizens also perform active roles by providing a variety of supports to the family members. Senior citizens play important roles in maintaining household activities, guiding family members, caring for grandchildren, providing counselling, and security, socialising, mediating, and providing financial support. The value of senior citizen's contribution to the family is immeasurable (Ayoob, 2020). In the present study, senior citizen's financial contribution to the household expenditure is dealt with.

Among the respondents, 26.82 per cent makes no financial contribution to the family. Out of the rest, 30.99 per cent and 22.66 per cent of the senior citizens contribute less than 25 per cent and contribute 25-50 per cent of the total household expenditure. More than 75 per cent and 50-75 per cent of the household expenditure were contributed by 8.85 per cent and 10.68 per cent of the senior citizens respectively. The income of the senior citizens, health, and physical conditions of the senior citizens, living arrangement and the familial matters together determines the contribution of the senior citizens to the household expenditure. Still, the senior citizens continue to play an important role in contributing to the household affairs.

**Table 5.11**  
**Contribution of the Senior Citizens to the Household Expenditure**  
**(Percentage are in Brackets)**

<b>Level of Contribution</b>	<b>Number</b>
Above 75 per cent	34 (8.85)
Between 50-75 per cent	41 (10.68)
Between 25-50 per cent	87 (22.66)
Less than 25 per cent	119 (30.99)
No contribution	103 (26.82)
<b>Grand Total</b>	<b>384</b> <b>(100)</b>

Source: Primary Data

Among the respondents, 26.82 per cent makes no financial contribution to the family. Out of the rest, 30.99 per cent and 22.66 per cent of the senior citizens contribute less than 25 per cent and contribute 25-50 per cent of the total household expenditure. More than 75 per cent and 50-75 per cent of the household expenditure were contributed by 8.85 per cent and 10.68 per cent of the senior citizens respectively. The income of the senior citizens, health, and physical conditions of the senior citizens, living arrangement and the familial matters together determines the contribution of the senior citizens to the household expenditure. Still, the senior citizens continue to play an important role in contributing to the household affairs.

#### **5.4 Analysis of Constructs of Economic Independence**

Having analysed the involvement of senior citizens in economic activities and socio-economic profile of the senior citizens in rural area, the study discusses the constructs of economic independence in this section.

Economic Independence means “expanding the capacity of an individual to make genuine choices in all spheres of life. It can be better achieved by imparting economic knowledge, providing access to economic institutions, widening sources of economic socialisation and enlarging decision making role”.

Here, the economic knowledge, independent access to economic institutions, sources of economic socialisation and decision-making role of senior citizens together constitute the economic independence of senior citizens. In this section we analyse these four constructs of economic independence based on their individual characteristics to understand to the level of economic independence of senior citizens in rural areas of Kerala.

#### 5.4.1 Independent Access to Economic Institutions

Independent access to economic institutions means senior citizen's ability to obtain or to take the advantage of something as services and institutions, which is available within 10 Kilometres. Independent access to economic institutions was measured with the help of scaling technique using 7-point Likert scale with nine statements.

**Table 5.12**  
**One Sample t-test of Independent Access to Economic Institutions**

<b>Economic Institutions</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>t value</b>	<b>P value</b>
Bank and Society	384	4.90	2.069	8.484	<0.001**
Hospital	384	4.96	2.158	8.724	<0.001**
Health Centre	384	5.78	1.649	21.166	<0.001**
Medical Shop	384	5.76	1.688	20.466	<0.001**
Administrative Offices	384	4.66	2.177	5.977	<0.001**
Transportation Facilities	384	5.24	1.946	12.532	<0.001**
Akshaya e-Centre, CSC	384	4.33	2.405	2.716	0.007**
Religious Centres	384	5.34	1.955	13.416	<0.001**
Markets	384	5.40	2.015	13.653	<0.001**

Source: Primary Data

Mean significance @ 5%

\*\* Significant P value

One sample t-test was applied to examine whether the mean of the population is statistically different from a known or hypothesized value. The hypothesized value is 4. The table 5.12 explains the descriptive statistics and the result of the one-sample t-test of independent access to economic institutions for senior citizens. It explicates the number of samples, the mean and standard deviation, t value and P value of independent access to the 9 economic institutions.

One sample t test is executed for taking the fitted inferences where in the null hypothesis is rejected at five per cent level of significance while comparing the mean with its mid value “four”. Since, the P value is significant and mean value is greater than four, senior citizens have independent access for all nine economic institutions. Hence, it is concluded that the senior citizens have independent access to economic institutions in rural areas of Kerala.

Having conducted the one-sample t-test for independent access to economic institutions the study analyses that the senior citizen’s independent access to economic institutions based on their individual characteristics by applying both independent t-test and One-way ANOVA.

Independent access to economic institutions for the senior citizens is essential because only then they are likely to manage their own activities and not to depend too much on others. The study attempts to find out the comparative level of independent access to economic institutions among the elderly men and the elderly women. An independent t-test was conducted to find out differences among the elderly men and the elderly women.

### **Hypothesis**

H: “There are significant differences among the elderly men and the elderly women in accessing economic institutions independently”

The mean and standard deviation of the elderly men for access to economic institutions were 5.6858 and 1.59075 respectively and for the elderly women the mean and standard deviation were 4.6846 and 1.73006, respectively. This shows that the elderly male has more access to economic institutions than the elderly female in rural areas of Kerala. Since, the P value is less than 0.001, the t value for access to economic institutions between the elderly men and the elderly women was 5.907, is statistically significant. Thus, the null hypothesis is rejected and the alternative hypothesis “There is statistically significant differences among the elderly men and the elderly women in accessing economic institutions” is accepted. It can be inferred from table 5.13 that there exists a significant difference in the level of access to economic institutions among the elderly men and women. It implies that based on the level of access to economic institutions the elderly women must depend on others than the elderly men for accessing economic institutions and their services.

Historically, the traditional gender roles and cultural norms in society limited women’s access to economic institutions and women have been expected to focus on household affairs rather than involving in economic activities outside the home. The existing disparities in education, skill and training, ownership of land and properties, and employment opportunities among the elderly men and elderly women, leads to fewer access to economic institutions for the elderly women than the elderly men.



**Table 5.13**

**Independent Access to Economic Institutions Based on Individual Characteristics**

Individual Characteristics		N	Mean	Std. Deviation	F Ratio/ t value	P value
Gender	Male	180	5.6858	1.59075	5.907*	<0.001**
	Female	204	4.6846	1.73006		
Activity	Working	194	5.5046	1.53357	4.076*	<0.001**
	Care giving	190	4.7959	1.86061		
Religion	Hindu	201	4.9121	1.66220	4.766	0.009**
	Muslim	43	5.1680	1.94492		
	Christian	140	5.4968	1.73148		
	Total	384	5.1539	1.73762		
Marital Status	Married	262	5.3198	1.70321	5.701	0.004**
	Unmarried	12	5.7037	1.81917		
	Widower	110	4.6990	1.73805		
	Total	384	5.1539	1.73762		
Educational Status	No Schooling	75	4.5081	1.69704	3.879	0.001**
	Below SSLC	227	5.1924	1.68639		
	SSLC	50	5.5778	1.75496		
	Higher Secondary	11	5.1010	1.63862		
	Degree	13	5.9231	2.06000		
	PG	2	4.5000	2.12132		
	Professional Education	6	6.8889	.17213		
	Total	384	5.1539	1.73762		
Living Arrangement	Living alone	15	5.5111	1.95261	3.833	0.005**
	Living with spouse only	47	5.7234	1.61662		
	Living with spouse and children	218	5.2421	1.71348		
	Living with children	98	4.6814	1.71248		
	Living with others	6	4.3148	1.80454		
	Total	384	5.1539	1.73762		

Source: Primary Data

\*t-value of independent t-test

\*\*Significant P- value

Having analysed the level of independent access to economic institutions, an independent t-test was conducted to find out the level of independent access to economic institutions among the elderly workers and the elderly care givers.

### **Hypothesis**

H: “There are significant differences between the elderly workers and the elderly care-givers in accessing economic institutions independently”

The mean and standard deviation of the elderly workers for independent access to economic institutions were 5.5046 and 1.53357 respectively and for the elderly care-givers the mean and standard deviation were 4.7959 and 1.86061, respectively. This explicates that the elderly workers have more independent access to economic institutions than the elderly care-givers in the rural areas of Kerala. Since, the P value is less than 0.001, the t value for access to economic institutions between the elderly workers and the elderly care-givers was 4.076, and it is statistically significant. Thus, the hypothesis “There are significant differences between the elderly workers and the elderly care-givers in accessing economic institutions independently” is accepted. It can be inferred from table 5.13 that there exists a significant difference in the level of independent access to economic institutions among the elderly workers and the elderly care-givers. It implies that based on the level of independent access to economic institutions the elderly care-givers should depend on others than the elderly workers for accessing economic institutions and their services.

The working senior citizens have their own income and financial resources, which can facilitate greater access to economic institutions than the care-giving elderly. Being part of the workforce can lead to increased social relationships and interactions, and have great exposure to information about available institutions. Furthermore, the care-giving elderly who have strong family support also have good access to economic institutions and services.

One-way ANOVA was conducted to have a comparison in the level of independent access to economic institutions among the senior citizens of three religion. One-way ANOVA was applied to compare the means of two or more independent groups in order to determine whether there is statistical significance.

### **Hypothesis**

H: “There are significant differences in accessing economic institutions among the senior citizens in different religion.”

The mean and standard deviation of the Muslim senior citizens in the level of independent access to economic institutions were 5.1680 and 1.94492, respectively and that of the Christian senior citizens were 5.4968 and 1.73148 respectively. The mean and standard

deviation of the Hindu senior citizens were 4.9121 and 1.66220, respectively. Since, the F ratio is 4.766 and the P value is 0.009, the hypothesis “There are significant differences in accessing economic institutions among the senior citizens in different religion.” was accepted. From this it could be concluded that Christian senior citizens have more independent access to economic institutions than Muslim senior citizens and Hindu Senior citizens, who have the least independent access. The study thus finds out that the senior citizens of Christian religion have more access to economic institutions than their counter parts such as Hindu senior citizens and Muslim senior citizens. Further, to analyse the multiple comparisons in between the senior citizens in different religions, Post-Hoc Test was conducted.

**Table 5.14**

**Post-hoc Table of Access to Economic Institutions Based on Religion**

<b>Religion (I)</b>	<b>Religion (J)</b>	<b>Mean Difference (I-J)</b>	<b>Standard Error</b>	<b>P value</b>
<b>Hindu</b>	Muslim	-0.25585	0.28913	0.377
	Christian	-0.58472	0.18943	0.002**
<b>Muslim</b>	Hindu	0.25585	0.28913	0.377
	Christian	-0.32887	0.30002	0.274
<b>Christian</b>	Hindu	0.58472	0.18943	0.002**
	Muslim	0.32887	0.30002	0.274

Source: Computed from primary data

The mean difference is significant at the 0.05 level.

\*\* Significant P value

The comparison between Hindu and Christian senior citizens in the level of access to economic institutions was significant and the comparison between Hindu and Muslim senior citizens and Muslim and Christian senior citizens were insignificant. In the same way the study tries to find out the relative independent access to economic institutions among the married, unmarried, and widowed senior citizens.

### **Hypothesis**

H: “There are significant differences in accessing economic institutions independently among the married, unmarried, and widowed senior citizens.”

The mean and standard deviation of the married senior citizens in accessing economic institutions were 5.3198 and 1.70321 respectively, while that of the unmarried senior citizens were 5.7037 and 1.81917 respectively and the mean and standard deviation of the widowers were 4.6990 and 1.73805 respectively. Since the F-ratio is 5.701 and the P value is 0.004, which is significant, the hypothesis “There are significant differences in accessing economic institutions independently among the married, unmarried, and widowed senior citizens.” was accepted. From this analysis it can be presumed that the unmarried senior citizens were highly independent in accessing economic institutions and the widowed senior citizens were slightly independent in accessing economic institutions.

The unmarried senior citizens were economically independent and enjoy individual autonomy from their younger age. They also have strong support systems in the form of family, friends, relatives and community and social networks which can assist them in accessing institutions and services. In the case of widowed senior citizens, they face specific challenges that can limit their access to economic institutions. Losing a spouse can lead them to increased feeling of loneliness and social isolation, especially if the diseased partner was the primary social support for the widowed senior citizen. Widowed senior citizens, especially widowed women, experience a shrinking social network, particularly if they relied heavily on their spouse for social interactions. It is important to ensure that access to economic institutions should be equitable for all the senior citizens. Efforts should be made to create age-friendly environments and comprehensive support systems and that cater to the diverse needs of the senior population. Additionally, empowering the widowed senior citizens through support groups, counselling services and educational programmes can help them build resilience and enhance their ability to access economic institutions that cater to their needs and well-being.

A post-hoc test was conducted to make multiple comparison between the married, unmarried, and widowed senior citizens in the rural areas of Kerala. In the analysis of the independent access to economic institutions based on the marital status, the comparison could be done between the married and widowed senior citizens. Since, the P values were insignificant, the comparison between the married and unmarried senior citizens and unmarried and widowed senior citizens were not possible. The present study also opted to evaluate the relative independent access to economic institutions of the senior citizens who have different levels of education.

**Table 5.15**

**Post-hoc Table of Access to Economic Institutions Based on Marital Status**

Source: Computed from primary data

<b>Marital Status (I)</b>	<b>Marital Status (J)</b>	<b>Mean Difference (I-J)</b>	<b>Standard Error</b>	<b>P value</b>
<b>Married</b>	Unmarried	-0.38394	0.50679	0.449
	Widower	0.62077	0.19504	0.002**
<b>Unmarried</b>	Married	0.38394	0.50679	0.449
	Widower	1.00471	0.52190	0.055
<b>Widower</b>	Married	-0.62077	0.19504	0.002**
	Unmarried	-1.00471	0.52190	0.055

The mean difference is significant at the 0.05 level.

\*\* Significant P value

**Hypothesis**

H: “There are significant differences in accessing economic institutions independently among the senior citizens who have different levels of education.”

The mean and standard deviation of the senior citizens, who have no school years, in accessing economic institutions were 4.5081 and 1.69704 respectively and that of the senior citizens who have education less than SSLC were 5.1924 and 1.68639 respectively. The mean of the senior citizens who have completed SSLC, higher secondary and degree were 5.5778, 5.1010 and 5.9231 respectively. The mean and standard deviation of the senior citizens who are post-graduated, in accessing economic institutions were 4.5000 and 2.12132 and that of the professionally qualified senior citizens were 6.8889 and 0.17213 respectively. Since the F-ratio is 3.879 and the P-value is less than 0.001, which is significant, the hypothesis “There is significant difference in accessing economic institutions independently among the senior citizens who have different levels of education” was accepted. It can be inferred from the analysis that the senior citizens who are highly educated have more independent access to economic institutions than the less educated or not at all educated except the case of the senior citizens who completed their post-graduation.

**Table 5.16**  
**Post-hoc Table of Access to Economic Institutions Based on Level of Education**

<b>Level of Education (I)</b>	<b>Level of Education (J)</b>	<b>Mean Difference (I-J)</b>	<b>Standard Error</b>	<b>P value</b>
<b>Illiterate</b>	Below SSLC	-0.68422	0.22638	0.003**
	SSLC	-1.06963	0.31033	0.001**
	Higher secondary	-0.59286	0.54878	0.281
	Degree	-1.41493	0.51064	0.006**
	PG	0.00815	1.21781	0.995
	Professional Education	-2.38074	0.72113	0.001**
<b>Below SSLC</b>	Illiterate	0.68422	0.22638	0.003**
	SSLC	-0.38541	0.26553	0.147
	Higher secondary	0.09135	0.52476	0.862
	Degree	-0.73071	0.48473	0.133
	PG	0.69236	1.20717	0.567
	Professional Education	-1.69652	0.70302	0.016**
<b>SSLC</b>	Illiterate	1.06963	0.31033	0.001**
	Below SSLC	0.38541	0.26553	0.147
	Higher secondary	0.47677	0.56606	0.400
	Degree	-0.34530	0.52917	0.514
	PG	1.07778	1.22569	0.380
	Professional Education	-1.31111	0.73436	0.075
<b>Higher secondary</b>	Illiterate	0.59286	0.54878	0.281
	Below SSLC	-0.09135	0.52476	0.862
	SSLC	-0.47677	0.56606	0.400
	Degree	-0.82207	0.69633	0.239
	PG	0.60101	1.30659	0.646
	Professional Education	-1.78788	0.86264	.039**
<b>Degree</b>	Illiterate	1.41493	0.51064	0.006
	Below SSLC	0.73071	0.48473	0.133
	SSLC	0.34530	0.52917	0.514
	Higher secondary	0.82207	0.69633	0.239
	PG	1.42308	1.29103	0.271
	Professional Education	-0.96581	0.83889	0.250
<b>PG</b>	Illiterate	-0.00815	1.21781	0.995
	Below SSLC	-0.69236	1.20717	0.567
	SSLC	-1.07778	1.22569	0.380
	Higher secondary	-0.60101	1.30659	0.646
	Degree	-1.42308	1.29103	0.271
	Professional Education	-2.38889	1.38782	0.086
<b>Professional Education</b>	Illiterate	2.38074	0.72113	0.001**
	Below SSLC	1.69652	0.70302	0.016**
	SSLC	1.31111	0.73436	0.075
	Higher secondary	1.78788	0.86264	0.039**
	Degree	0.96581	0.83889	0.250
	PG	2.38889	1.38782	0.086

Source: Computed from primary data

The mean difference is significant at the 0.05 level.

\*\*Significant P value

Educated senior citizens have better access to economic institutions compared to those with less educated because the educated senior citizens have improved digital literacy and communication skills, more informed about available economic institutions and their services, and have more social interactions. Education plays an important role in determining the level of access of the senior citizens to various economic institutions and services. Organising programmes including informational sessions, community workshops, and home visits to educate the senior citizens in the rural areas about the institutions will enhance their access to these institutions than before. In Kerala, efforts must be made to ensure that the senior citizens have access to institutions. Institutions should be designed and modified to be physically accessible to the senior citizens and the entire staff at the institutions should be trained to aid and guidance adapted to the needs of the senior citizens.

The post-hoc table of independent access to economic institutions based on level of education, given in table 5.16, explains that multiple comparison illiterate senior citizens with the senior citizens, who educated below SSLC, SSLC, degree, and professionally qualified were significant. The present study can have multiple comparison of professionally qualified senior citizens with the senior citizens who were educated below SSLC and completed higher secondary because the P value of such comparison was significant.

The present study attempts to analyse the comparative level of independent access to economic institutions of the senior citizens who were living in different living arrangements.

### **Hypothesis**

H: “There are significant differences in accessing economic institutions independently among the senior citizens who have different living arrangement.”

The mean and standard deviation of the senior citizens living alone in accessing economic institutions were 5.5111 and 1.95261, respectively and that of the senior citizens living with spouse only were 5.7234 and 1.61662, respectively. The senior citizens living with spouse and children have the mean and standard deviation of 5.2421 and 1.71348, respectively in accessing economic institutions independently. The mean and standard deviation of the senior citizens living with children were 4.6814 and 1.71248 respectively and the senior citizens living with others were 4.3148 and 1.80454 respectively. Since the F-ratio is 3.833 and the P-value is .005, which is significant, the hypothesis “There are significant differences in accessing economic institutions independently among the senior citizens who have different living arrangement” was accepted. From the analysis it was concluded that the senior citizens living with the children have more independent access to economic institutions followed by

the senior citizens who live alone and the senior citizens living with others have the least independent access to economic institutions in the rural areas of Kerala.

**Table 5.17**

**Post-hoc Table of Access to Economic Institutions Based on Living Arrangement**

Type of living (I)	Type of living (J)	Mean Difference (I-J)	Standard Error	P value
<b>Living alone</b>	Living with spouse only	-0.21229	0.50784	0.676
	Living with spouse and children	0.26901	0.45712	0.557
	Living with children Only	0.82971	0.47479	0.081
	Living with others	1.19630	0.82721	0.149
<b>Living with spouse only</b>	Living alone	0.21229	0.50784	0.676
	Living with spouse and children	0.48130	0.27540	0.081
	Living with children Only	1.04200	0.30384	0.001**
	Living with others	1.40859	0.74240	0.059
<b>Living with spouse and children</b>	Living alone	-0.26901	0.45712	0.557
	Living with spouse only	-0.48130	0.27540	0.081
	Living with children Only	0.56069	0.20827	0.007**
	Living with others	0.92729	0.70867	0.192
<b>Living with children Only</b>	Living alone	-0.82971	0.47479	0.081
	Living with spouse only	-1.04200	0.30384	0.001**
	Living with spouse and children	-.56069	0.20827	0.007**
	Living with others	0.36659	0.72020	0.611
<b>Living with others</b>	Living alone	-1.19630	0.82721	0.149
	Living with spouse only	-1.40859	0.74240	0.059
	Living with spouse and children	-0.92729	0.70867	0.192
	Living with children Only	-0.36659	0.72020	0.611

Source: Computed from primary data

The mean difference is significant at the 0.05 level.

\*\*Significant P value



The senior citizens living with their adult children have better access to institutions because the family members facilitate the necessary resources and create supportive environment for the senior citizens for accessing economic institutions. The senior citizens living with others have least access to economic institutions because they face certain challenges that can limit their access to institutions. The senior citizens living with others lack autonomy, especially in multi-generational households, and have less control over their activities and their dependence on others hinder their ability to access institutions and services at times that suit their needs.

The Post-hoc table of the independent access to economic institutions based on the living arrangement of the senior citizens portrays that in the rural areas the comparison could be done among the senior citizens living with children only with the senior citizens who are living only with spouse and living with spouse and children.

Access to economic institutions vary among the senior citizens across locations in the rural areas of Kerala. Thus, it is important to create more inclusive environment for the senior citizens especially in the rural areas that addresses the institutional divide and the specific needs of the senior citizens irrespective of their gender, kind of activity they involved, religion, marital status, education and living arrangement. Community development programmes, support environment and age friendly initiatives become crucial in ensuring that all elderly individuals have the necessary access to institutions they require.

#### **5.4.2 Economic Knowledge of the Senior Citizens**

Economic knowledge means the level of awareness of various services, opportunities, schemes, programmes and policies which increase the well-being of the senior citizens. The economic knowledge of the senior citizens in the rural areas of Kerala vary significantly based on their education, professional background and life experiences. Some senior citizens have deep knowledge of various services while others may have limited exposure to economic concepts.

The level of economic knowledge of the senior citizens was measured with the help of scaling technique using 7-point Likert scale with nine statements. To begin the analysis, one sample t-test was applied to examine whether the mean of the population is statistically different from a known or hypothesized value. The hypothesized value is four. Table 5.14 explains the descriptive statistics and the result of the one-sample t-test of economic knowledge for the senior citizens. It outlines the number of samples, the mean and standard deviation, t value and P value.

One sample t-test is executed for taking the fitted inferences where in null hypothesis is rejected at 5 per cent level of significance while comparing the mean with its mid value “four”. Since, the P value is significant and mean value is less than four, senior citizen’s economic knowledge is very low in the rural areas of Kerala. Hence, it is concluded that the senior citizens in the rural areas of Kerala have no sufficient knowledge about these economic services and opportunities.

**Table 5.18**

**One Sample t-test of Economic Knowledge**

<b>Economic Services</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>T value</b>	<b>P value</b>
<b>Cash Transactions</b>	384	3.18	2.572	-6.210	<0.001**
<b>Online Transactions</b>	384	1.43	1.227	-41.021	<0.001**
<b>Transactions using cheque</b>	384	2.68	2.342	-11.024	<0.001**
<b>Loan Schemes</b>	384	2.65	2.247	-11.766	<0.001**
<b>Investment plans</b>	384	2.61	2.224	-12.227	<0.001**
<b>Savings Plans</b>	384	2.65	2.238	-11.837	<0.001**
<b>Insurance</b>	384	2.61	2.221	-12.225	<0.001**
<b>Welfare Schemes</b>	384	2.31	2.023	-16.368	<0.001**
<b>Subsidies and Discounts for elderly</b>	384	2.32	1.994	-16.558	<0.001**

Source: Primary Data

Mean significance @ 5%

\*\* Significant P value

Having conducted the one-sample t-test for economic knowledge of the senior citizens, the present study analyses the senior citizen’s level of knowledge in economic services based on their individual characteristics by applying both independent t-test and One-way ANOVA.

The awareness of the senior citizens in the facilities and opportunities available for them plays a vital role in the active life of the senior citizens. They must be aware of the schemes and policies that promote their welfare and opportunities to engage in economic activities, or else they cannot accomplish active, productive, and successful ageing. This section of analysis starts with an independent t-test to find out the differences in the level of economic knowledge of the elderly men and elderly women.

**Table 5.19**

**Economic Knowledge of the Senior Citizen Based on Individual Characteristics**

Individual Factors		N	Mean	Std. Deviation	F Ratio/ t value	P value
Gender	Male	180	3.0568	2.16457	5.619*	<0.001**
	Female	204	1.9984	1.50106		
Activity	Working	194	2.6369	1.99517	1.475*	0.008**
	Care-giving	190	2.3491	1.82136		
Religion	Hindu	201	2.1338	1.74983	8.012	<0.001**
	Muslim	43	3.0672	2.03888		
	Christian	140	2.8365	2.00645		
	Total	384	2.4945	1.91408		
Marital Status	Married	262	2.6179	1.99133	2.364	0.095
	Unmarried	12	1.6389	1.34517		
	Widower	110	2.2939	1.74294		
	Total	384	2.4945	1.91408		
Educational Status	No Schooling	75	1.7022	1.22361	18.810	<0.001**
	Below SSLC	227	2.2687	1.74817		
	SSLC	50	3.1578	2.14246		
	Higher Secondary	11	3.3333	1.78055		
	Degree	13	5.7778	.87841		
	PG	2	3.5000	3.53553		
	Professional Education	6	6.4259	.10924		
	Total	384	2.4945	1.91408		
Living Arrangement	Living alone	15	5.5111	1.95261	2.121	0.078
	Living with spouse only	47	5.7234	1.61662		
	Living with spouse and children	218	5.2421	1.71348		
	Living with children	98	4.6814	1.71248		
	Living with others	6	4.3148	1.80454		
	Total	384	5.1539	1.73762		

Source: Computed from primary data

\*t-value of independent t-test

\*\*Significant P- value

## **Hypothesis**

H: “There are significant differences between the elderly men and the elderly women in economic knowledge”

The mean and standard deviation of the elderly men for economic knowledge were 3.0568 and 2.16457 respectively and for the elderly women the mean and standard deviation were 1.9984 and 1.50106, respectively. This enlightens that the elderly male was more aware of the welfare policies and various services offered to them than the elderly female in the rural areas of Kerala. Since, the P value is less than 0.001 the t value for the level of economic knowledge between the elderly men and the elderly women was 5.619, which is statistically significant. Thus, the hypothesis “There are statistically significant differences among the elderly men and the elderly women in the level of economic knowledge” is accepted. It can be inferred from the table 5.15 that there exist significant differences in the level of economic knowledge among the elderly men and the elderly women. It implies that based on the level of economic knowledge the elderly men were more aware of the various economic services than the elderly women in the rural areas of Kerala. It is due to their life experiences and accumulated knowledge. Elderly men have lived through several economic cycles and witnessed different economic trends over the years. These experiences give them a deeper understanding of how economic services have evolved and changed and the elderly men have had to plan for the evening of their life and manage their finances over an extended period. This made the elderly men more familiar with the economic services.

To make an analysis on the economic knowledge of the senior citizens in the rural areas of Kerala, an independent t-test was used and a comparison of the level of the economic knowledge among the elderly workers and the elderly care-givers was also done.

## **Hypothesis**

H: “There are significant differences between the elderly workers and the elderly care-givers in economic knowledge.

The mean and standard deviation of the elderly workers for their awareness of economic services were 2.6369 and 1.99517 respectively and for the elderly care-givers the mean and standard deviation were 2.3491 and 1.82136, respectively. This implicates that the elderly workers were more aware than the elderly care-givers in the rural areas of Kerala. Since, the P value is 0.008, which is statistically significant and the t value for the level of awareness between the elderly workers and the elderly care-givers was 1.475. Thus, the hypothesis “There are significant differences between the elderly workers and the elderly care-givers in economic knowledge” is accepted. It can be inferred from the table 5.15 that there exist significant

differences in the level of awareness among the elderly workers and the elderly care-givers. It implies that based on the level of awareness, necessary initiatives should be taken to impart knowledge to the senior citizens.

Following the independent t-test, one-way ANOVA was conducted to have a comparison in the level of awareness among the senior citizens of the three dominant religions of Kerala.

**Hypothesis**

H: “There are significant differences in the level of economic knowledge among the senior citizens in different religion.”

The mean and standard deviation of the Hindu senior citizens in the level of awareness were 2.1338 and 1.74983 respectively and that of Muslim senior citizens were 3.0672 and 2.03888 respectively. The mean and standard deviation of the Christian senior citizens in the level of awareness were 2.8365 and 2.00645 respectively. Since, the P-value is less than 0.001 and the F-ratio of the economic knowledge was 8.012, and hypothesis “There are significant differences in the level of economic knowledge among the senior citizens in different religion” was accepted. It can be conjectured that the economic knowledge was high among the senior citizens in the Muslim religion and comparatively low among the Hindu senior citizens.

**Table 5.20**

**Post-hoc Table of Economic Knowledge Based on Religion**

<b>Religion (I)</b>	<b>Religion (J)</b>	<b>Mean Difference (I-J)</b>	<b>Standard Error</b>	<b>P value</b>
<b>Hindu</b>	Muslim	-0.93341	0.31587	0.003**
	Christian	-0.70273	0.20695	0.001**
<b>Muslim</b>	Hindu	0.93341	0.31587	0.003**
	Christian	0.23068	0.32778	0.482
<b>Christian</b>	Hindu	0.70273	0.20695	0.001**
	Muslim	-0.23068	0.32778	0.482

Source: Computed from primary data

The mean difference is significant at the 0.05 level.

\*\*Significant P value

In the analysis of the level of economic knowledge among the senior citizens belong to different religion, the comparison between the Hindu and Muslim senior citizens and between the Hindu and Christian Senior citizens was found significant. Because of the insignificant P value comparison could not be done between the Muslim and Christian senior citizens regarding the level of economic knowledge of the senior citizens in the rural areas of Kerala.

The study seeks to determine the relative level of economic literacy among the older persons who are married, single, and widowed.

### **Hypothesis**

H: “There are significant differences in economic knowledge among the married, unmarried, and widowed senior citizens”

In terms of economic knowledge, among the married senior citizens the mean and standard deviation were 2.6179 and 1.99133, respectively and whereas the unmarried senior citizens had a mean and standard deviation of 1.6389 and 1.34517, and widowers had a mean and standard deviation of 2.2939 and 1.74294 respectively. Since the F-ratio is 2.364 and the P value is 0.095, which is statistically not significant, the hypothesis “There are significant differences in economic knowledge among the married, unmarried, and widowed senior citizens” is not accepted. Thus, it was inferred that the differences in the level of awareness of the senior citizens who are married, unmarried and widowed were not statistically significant because the individual differences play a significant role. While the married senior citizens were more aware of various economic services due to their life experiences and shared financial responsibilities with their spouse, the unmarried senior citizens were least aware of the economic services due to their unique life circumstance.

The present study looks at how well-informed the senior citizens are with various levels of schooling that they have and how much of information the senior citizens have towards the economic services.

### **Hypothesis**

H: “There are significant differences in economic knowledge among the senior citizens who have different levels of education.”

**Table 5.21**  
**Post-hoc Table of Economic Knowledge Based on Level of Education**

<b>Level of Education (I)</b>	<b>Level of Education (J)</b>	<b>Mean Difference (I-J)</b>	<b>Standard Error</b>	<b>P value</b>
<b>Illiterate</b>	Below SSLC	-0.56650*	0.22542	0.012**
	SSLC	-1.45556*	0.30900	<0.001**
	Higher secondary	-1.63111*	0.54644	0.003**
	Degree	-4.07556*	0.50847	<0.001**
	PG	-1.79778	1.21262	0.139
	Professional Education	-4.72370*	0.71806	<0.001**
<b>Below SSLC</b>	Illiterate	0.56650*	0.22542	0.012**
	SSLC	-0.88906*	0.26440	0.001**
	Higher secondary	-1.06461*	0.52252	0.042**
	Degree	-3.50906*	0.48266	<0.001**
	PG	-1.23128	1.20203	0.306
	Professional Education	-4.15720*	0.70002	<0.001**
<b>SSLC</b>	Illiterate	1.45556*	0.30900	<0.001**
	Below SSLC	0.88906*	0.26440	0.001**
	Higher secondary	-0.17556	0.56365	0.756
	Degree	-2.62000*	0.52691	<0.001**
	PG	-0.34222	1.22047	0.779
	Professional Education	-3.26815*	0.73124	<0.001**
<b>Higher secondary</b>	Illiterate	1.63111*	0.54644	0.003**
	Below SSLC	1.06461*	0.52252	0.042**
	SSLC	0.17556	0.56365	0.756
	Degree	-2.44444*	0.69336	<0.001**
	PG	-0.16667	1.30102	0.898
	Professional Education	-3.09259*	0.85897	<0.001**
<b>Degree</b>	Illiterate	4.07556*	0.50847	<0.001**
	Below SSLC	3.50906*	0.48266	<0.001**
	SSLC	2.62000*	0.52691	<0.001**
	Higher secondary	2.44444*	0.69336	<0.001**
	PG	2.27778	1.28553	0.077
	Professional Education	-0.64815	0.83532	0.438
<b>PG</b>	Illiterate	1.79778	1.21262	0.139
	Below SSLC	1.23128	1.20203	0.306
	SSLC	0.34222	1.22047	0.779
	Higher secondary	0.16667	1.30102	0.898
	Degree	-2.27778	1.28553	0.077
	Professional Education	-2.92593*	1.38191	0.035**
<b>Professional Education</b>	Illiterate	4.72370*	0.71806	<0.001**
	Below SSLC	4.15720*	0.70002	<0.001**
	SSLC	3.26815*	0.73124	<0.001**
	Higher secondary	3.09259*	0.85897	<0.001**
	Degree	0.64815	0.83532	0.438
	PG	2.92593*	1.38191	0.035**

Source: Computed from primary data

The mean difference is significant at the 0.05 level.

\*\*Significant P value

The mean and standard deviation of the senior citizens without any formal education were 1.7022 and 1.22361, respectively, while those with education levels below SSLC were 2.2687 and 1.74817 respectively. The mean of the senior citizens who have completed SSLC, higher secondary and degree were 3.1578, 3.3333 and 5.7778 respectively. The mean and standard deviation of the senior citizens who were post-graduated and have knowledge of the economic activities were 3.5000 and 3.53553 and that of the professionally qualified senior citizens were 6.4259 and .10924, respectively. Since the F-ratio is 18.810 and the P-value is less than 0.001, which is significant, the hypothesis “There are significant differences in economic knowledge among the senior citizens who have different levels of education” was accepted. The analysis suggests that the senior citizens with higher levels of education have more knowledge than the senior citizens with lower levels of education or no education at all, apart from the senior citizens who have finished their post-graduation. The senior citizens who were post graduated had high level of awareness towards the economic activities.

In the analysis of the economic knowledge based on the level of education, a multiple comparison could be done among the illiterate senior citizens with the senior citizens who are educated below SSLC, SSLC, higher secondary, degree, and professionally qualified. The Post-hoc table also explicates the significant P value for the multiple comparison of the below SSLC educated with the senior citizen who are completed SSLC, higher secondary, degree and professional degree. It also enables a multiple comparison among the senior citizens who completed SSLC and higher secondary with those who have degree and professional degree. The P value of the comparison between the post-graduated senior citizens and professionally qualified senior citizens was also significant.

As an addition to this the current study makes an effort to compare senior citizens who were living in various living arrangements in terms of their level of economic knowledge.

### **Hypothesis**

H: “There are significant differences in economic knowledge among the senior citizens who have different living arrangement.”

The mean and standard deviation of the senior citizens, who are living alone, in economic knowledge were 5.5111 and 1.95261, respectively and that of the senior citizens living with spouse only were 5.7234 and 1.61662, respectively. Senior citizens living with spouse and children have the mean and standard deviation of 5.2421 and 1.71348, respectively in economic knowledge. The mean and standard deviation of the senior citizens living with children were 4.6814 and 1.71248 respectively and the senior citizens living with others were 4.3148 and 1.80454 respectively. Since the F-ratio is 2.121 and the P-value is 0.078., which is



not significant, the hypothesis “There are significant differences in economic knowledge among the senior citizens who have different living arrangement” was rejected. The analysis led to the conclusion that the senior citizens living in varied living arrangements did not have any statistically significantly level of knowledge in the special case of the rural areas of the state of Kerala considered for the study.

### **5.4.3 Sources of Economic Socialisation**

Since, the awareness of various economic services and opportunities were very low among the senior citizens in the rural areas, the senior citizens must depend on other sources for gathering information and accessing services. Sources of economic socialisation means on whom the senior citizens depend for accessing information and services. It is the process through which senior citizens acquire knowledge, skills and resources related to financial matters, income management and economic decision-making. The sources of the economic socialisation of the senior citizens were measured with the help of 7-point Likert scale with six sources.

One sample t-test was applied to examine whether the mean of the population is statistically different from a known or hypothesized value. The hypothesized value is 4. The table 5. explains the descriptive statistics and the result of the one-sample t-test of sources of economic socialisation of the senior citizens. It shows the number of samples, the mean and standard deviation, t value and P value of six sources.

One sample t test is executed for taking the fitted inferences at 5 per cent level of significance while comparing the mean with its mid value “four”. The P-value is significant for all the sources. But, the mean value of children, social worker and media were greater than four. Thus, the senior citizens in rural areas depended predominantly on their children, social worker, and media. The senior citizens depend least on their friends and relatives. Hence, it is concluded that the sources on which the senior citizens depend to access information and services should be widened. The study further attempts to analyse the dependency of senior citizens on others based on their individual characteristics by applying independent t-test and one-way ANOVA.

**Table 5.22****One Sample t-test of the Sources of Economic Socialisation**

<b>Sources</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>t value</b>	<b>P value</b>
<b>Spouse</b>	384	3.36	2.782	-4.512	<0.001**
<b>Children</b>	384	5.37	2.508	10.682	<0.001**
<b>Grandchildren</b>	384	3.17	2.259	-7.183	<0.001**
<b>Friends &amp;Relatives</b>	384	2.10	1.809	-20.533	<0.001**
<b>Social worker</b>	384	5.15	2.401	9.372	<0.001**
<b>Media</b>	384	4.37	2.826	2.546	0.011**

Source: Primary Data

Mean significance @ 5%

\*\* Significant P value

Senior citizens in the rural areas of Kerala lack economic knowledge, thus they have to depend more on others for accessing information and services. At this juncture an analysis is made to compare the level of dependency on others for their economic socialisation among the elderly men and the elderly women. An independent t-test was applied to find out the difference among the elderly men and elderly women.

**Hypothesis**

H: “There are significant differences between the elderly men and the elderly women in the sources of economic socialisation”

The mean and standard deviation of the elderly men in considering the sources of economic socialization were 3.6306 and 1.22085 respectively and for the elderly women the mean and standard deviation were 4.1748 and 1.13567, respectively. This explains that the elderly male resort to fewer sources for economic socialisation than the elderly female in rural areas of Kerala. Since, the P value is less than 0.001 and the t value for the sources of economic socialisation between the elderly men and the elderly women was -4.504 and statistically significant. Thus, the hypothesis “There are significant differences between the elderly men and the elderly women in sources of economic socialisation” is accepted. It can be inferred from table 5.17 that there exists a statistically significant difference in depending on others for the economic socialisation among the elderly men and women. It implies that based on the level of sources of economic socialisation the elderly women depend on others than the elderly men for more socialisation.

**Table 5.23**  
**Sources of Economic Socialisation of the Senior Citizens Based on their Individual Characteristics**

Individual Factors		N	Mean	Std. Deviation	F Ratio/ t value	P value
Gender	Male	180	3.6306	1.22085	-4.504*	<0.001**
	Female	204	4.1748	1.13567		
Activity	Working	194	3.5541	1.19299	-6.304*	<0.001**
	Care-giving	190	4.2930	1.10280		
Religion	Hindu	201	3.6965	1.19045	7.818	<0.001**
	Muslim	43	4.2946	1.05775		
	Christian	140	4.1250	1.21313		
	Total	384	3.9197	1.20588		
Marital Status	Married	262	3.8594	1.27217	1.042	0.354
	Unmarried	12	4.0000	1.06837		
	Widower	110	4.0545	1.04465		
	Total	384	3.9197	1.20588		
Educational Status	No Schooling	75	3.9089	1.23095	1.024	0.409
	Below SSLC	227	3.9589	1.20991		
	SSLC	50	3.9000	1.19285		
	Higher Secondary	11	4.2576	.93798		
	Degree	13	3.1795	1.01713		
	PG	2	3.7500	1.76777		
	Professional Education	6	3.7778	1.48199		
	Total	384	3.9197	1.20588		
Living Arrangement	Living alone	15	3.2444	.72612	1.713	0.146
	Living with spouse only	47	3.8262	1.12555		
	Living with spouse and children	218	3.9182	1.27626		
	Living with children	98	4.0799	1.10327		
	Living with others	6	3.7778	1.40502		
	Total	384	3.9197	1.20588		

Source: Computed from primary data

\*t-value of independent t-test

\*\*Significant P- value

The elderly women in rural areas with limited social activities or lack of access to transportation and communication, making it challenging for them to socialise independently. Elderly women rely on others for economic socialisation due to various reasons, including their physical limitations, loss of their spouse and their role as care-giver. The loss of spouse of the elderly women in the rural areas impact their social circles, and lead them to seek companionship and social interaction from others. Elderly women spend most of their time at home will affect their opportunities for socialising and lead them to depend on others for economic socialisation.

Having analysed the dependency for economic socialisation of the elderly men and the elderly women the rural areas of Kerala, an independent t-test was used to test the comparative level of dependency for the economic socialisation among the elderly workers and the elderly care-givers.

### **Hypothesis**

H: “There are significant differences between the elderly workers and the elderly care-givers in the sources of economic socialisation”

The mean and standard deviation of the elderly workers for their dependency on others for economic socialisation were 3.5541 and 1.19299 respectively and for the elderly care-givers the mean and standard deviation were 4.2930 and 1.10280, respectively. This confirms that the elderly workers were less dependent on others than the elderly care-givers in the rural areas of Kerala. Since, the P value is less than 0.001 and the t value for the level of dependency between the elderly workers and the elderly-care givers was -6.304, which is statistically significant. Thus, the hypothesis “There are significant differences between the elderly workers and the elderly care-givers in the sources of economic socialisation” is accepted. It can be inferred from table 5.17 that there exist significant differences in the level of dependency for economic socialisation among the elderly workers and the elderly care-givers. It implies that based on the level of dependency, necessary initiatives should be taken to impart knowledge about various services and measures for the senior citizens through various channels.

Following the independent t-test, one-way ANOVA was conducted to have a comparison in the level of dependency in economic socialisation among the senior citizens of the three religions.

### **Hypothesis**

H: “There are significant differences in the level of dependency for economic socialisation among the senior citizens belonging to different religion”

The mean and standard deviation of the Muslim senior citizens in the level of dependency for economic socialisation were 4.2946 and 1.05775, respectively and that of the Christian senior citizens were 4.1250 and 1.21313 respectively. The mean and standard deviation of the Hindu senior citizens were 3.6965 and 1.19045, respectively. Since, the F ratio is 7.818 and the P value is less than 0.001, the hypothesis “There are significant differences in the level of dependency for economic socialisation among the senior citizens belonging to different religion” was accepted. From the analysis, it was concluded that the Muslim senior citizens were depending more on others for economic socialisation and the Hindu senior citizens depend least on others. At this point it has to be remembered that both the religions of Islam and Christianity are more organised than Hinduism.

To analyse the multiple comparisons in between the elderly in different religions, Post-Hoc Test was conducted. It was identified from the analysis that the comparison of level of dependency of senior citizens on others for economic socialisation between the Hindu senior citizens and Muslim senior citizens and the comparison between the Hindu senior citizens and Christian senior citizens were significant. The comparison between Muslim senior citizens and Christian senior citizens were not significant because the P value is greater than 0.05.

**Table 5.24**

**Post-hoc Table of Sources of Economic Socialisation Based on Religion**

<b>Religion (I)</b>	<b>Religion (J)</b>	<b>Mean Difference (I-J)</b>	<b>Std. Error</b>	<b>P value</b>
<b>Hindu</b>	Muslim	-0.59806*	0.19910	0.003
	Christian	-0.42848*	0.13044	0.001
<b>Muslim</b>	Hindu	0.59806*	0.19910	0.003
	Christian	0.16957	0.20660	0.412
<b>Christian</b>	Hindu	0.42848*	0.13044	0.001
	Muslim	-0.16957	0.20660	0.412

Source: Computed from primary data

The mean difference is significant at the 0.05 level

\*\*Significant P value

In the same way the study tries to find out the level of dependency on others for the economic socialisation among the married, unmarried, and widowed senior citizens.

## **Hypothesis**

H: “There are significant differences in sources of economic socialisation among the married, unmarried, and widowed senior citizens”

The mean and standard deviation of the married senior citizens in depending on others for the economic socialisation were 3.8594 and 1.27217 respectively, while that of the unmarried senior citizens were 4.0000 and 1.06837 respectively and the mean and standard deviation of the widowers were 4.0545 and 1.04465 respectively. Since the F-ratio is 1.042 and the P value is 0.354, which is not significant, the hypothesis “There are significant differences in the sources of the economic socialisation among the married, unmarried, and widowed senior citizens” was rejected. Based on the mean value of the analysis it can be inferred that the widowed senior citizens were more depending on others, followed by the unmarried senior citizens and the married senior citizens.

In rural areas, widowed senior citizens especially elderly widows, were viewed as the vulnerable category because they face the challenge of losing their spouse’s financial and emotional support, which can impact their economic stability and overall well-being. It also leads to social isolation and experience a reduces social circle. The cultural and social norms also play a vital role in forming the experiences of elderly widows. In the present society widowed senior citizens were discriminated, which worsen their confronts, and ultimately, they were limited within their family. Thereby, their sources for economic socialisation also limited. Thereafter the study tries to evaluate the sources of economic socialisation of the senior citizens based on their level of education.

## **Hypothesis**

H: “There are significant differences in the sources of the economic socialisation of the senior citizens based on their level of education”

The mean and standard deviation for the sources of the economic socialisation of the senior citizens, who have no school years, was 3.9089 and 1.23095 respectively and that of the senior citizens who have education below SSLC were 3.9589 and 1.20991 respectively. The mean of the senior citizens who have completed SSLC, higher secondary and degree were 3.9000, 4.2576 and 3.1795 respectively. The mean and standard deviation of the post-graduated senior citizens were 3.7500 and 1.76777 and that of the professionally qualified senior citizens were 3.7778 and 1.48199, respectively. Since the F-ratio is 1.024 and the P-value is 0.409, which is not significant, the hypothesis “There are significant differences in sources of economic socialisation of the senior citizens based on their level of education” was rejected. Thus, the study infers that the difference among the senior citizens in the sources of the

economic socialisation based on their level of education cannot be accepted. The study further compares the sources of economic socialisation of senior citizens living in different living arrangement.

### **Hypothesis**

H: “There are significant differences in the sources of economic socialisation of the senior citizens based on their living arrangement”

The mean and standard deviation of the senior citizens, who are living alone, for depending on others for the economic socialisation were 3.2444 and 0.72612, respectively and that of the senior citizens living with spouse only were 3.8262 and 1.12555, respectively. The senior citizens living with spouse and children have the mean and standard deviation of 3.9182 and 1.27626, respectively in the dependency for the economic socialisation. The mean and standard deviation of the senior citizens living with children were 4.0799 and 1.10327 respectively and the senior citizens living with others were 3.7778 and 1.40502 respectively. Since the F-ratio is 1.713 and the P-value is 0.146, which is not significant, the hypothesis “There are significant differences in the sources of the economic socialisation of the senior citizens based on their living arrangement” was rejected. Thus, the study finds out that the differences in the sources of the economic socialisation of the senior citizens based on their living arrangement was insignificant in the rural areas of Kerala.

Among the senior citizens in the rural areas of Kerala, the sources of economic socialisation vary based on their individual characteristics, socio-cultural contexts, and the available support systems. For addressing the sources of economic socialisation of the senior citizens, a comprehensive approach that encompasses financial education, social programmes, family support and policy initiatives was required. Because the sources of economic socialisation for the senior citizens plays a significant role in assisting senior citizens to navigate financial challenges, to make informed decisions, and to maintain a sense financial security and well-being during their autumn years.

### **5.4.4 Decision-Making Role of the Senior Citizens**

The decision-making role is a fundamental aspect of everyone’s life, regardless of age and it occupies role in shaping one’s personal, social and economic circumstances. The senior citizens play multifaceted role in decision making both within their families and communities. Their life experiences, wisdom and contributions are valuable asset that can influence various aspects of life. It is important to involve the senior citizens in decision making process and ensuring that their perspectives are considered because recognising their contributions being

valued help them to avoid the feeling of loneliness, marginalisation and uselessness. The presence of senior citizens in decision-making promotes inter-generational relationships and also bridge the gap between different age groups within the community. In the present study, decision-making role of the senior citizens means the power to make decisions in household affairs. The decision-making role of the senior citizens was measured with the help of scaling technique using 7-point Likert scale with ten statements.

One sample t-test was applied to examine whether the mean of the population is statistically different from a known or hypothesized value. The hypothesized value is four. Table 5.18 explains the descriptive statistics and the result of the one-sample t-test of the decision-making role of the senior citizens. It shows the number of samples, the mean and standard deviation, t value and P value of the decision-making power in ten affairs.

**Table 5.25**

**One Sample t-test of Decision-Making Role of the Senior Citizens**

<b>Decisions</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>t-value</b>	<b>P value</b>
Education of grandchildren	384	3.46	1.532	-6.961	<0.001**
Marriage of grandchildren	384	3.46	1.561	-6.767	<0.001**
Job related decisions of children	384	3.74	1.563	-3.233	0.001**
Job related decisions of grand children	384	3.57	2.918	-2.903	0.004**
Purchasing of food items, cloths, and other essentials	384	5.82	1.235	28.872	<0.001**
Purchasing of other household items	384	5.86	1.207	30.176	<0.001**
Buying and selling of property	384	5.13	1.664	13.342	<0.001**
Future Savings Plan	384	4.74	1.843	7.890	<0.001**
Gift to children, grandchildren, and others	384	4.88	1.826	9.417	<0.001**
Arrangement of events	384	4.73	1.799	8.001	<0.001**

Source: Primary Data

Mean significance @ 5%

\*\* Significant P value



One sample t-test is executed for taking the fitted inferences where in null hypothesis is rejected at 5 per cent level of significance while comparing the mean with its mid value “four”. Since, the P value is significant and mean value is greater than four, for affairs such as purchasing of food items, cloths, and other essentials, purchasing of other household items, buying and selling of property, future savings plan, gift to children, grandchildren, and others and the arrangement of events, the senior citizens in the rural areas of Kerala, occupies a predominant decision-making role in these economic decisions are taken into consideration. Since, the mean value is greater than four and P value is significant for affairs such as education, marriage and job-related decisions of grandchildren and also the job-related decisions of their children, the senior citizens have no decisive role in the above stated affairs.

Subsequently of the one-sample t-test of the decision-making role of the senior citizens, the study attempts to analyse the decision-making role of the senior citizens based on their individual characteristics by applying an independent t-test and one-way ANOVA.

The decision-making role of the senior citizens plays a major role in their later life. When an individual enters in to 60, they were transformed from the chief bread winner to a mere dependent. It makes them to feel isolated and marginalised. It will affect the well-being of the senior citizens. At this, juncture the present study made an attempt to compare the decision-making role among the elderly men and the elderly women. An independent t-test was conducted to find out the differences among the elderly men and the elderly women.

### **Hypothesis:**

H: “There are significant differences between the elderly men and the elderly women in decision-making role”

The mean and the standard deviation of the decision-making role of the elderly men were 4.7839 and 1.24896 respectively and for the elderly women the mean and the standard deviation were 4.3235 and 1.20268 respectively. This shows that both the elderly men and the elderly women have an active role in household affairs but in comparison with the elderly women, the elderly men occupy a predominant role. Since, the P value is less than 0.001 the t value for the decision-making role in household affairs of the elderly men and the elderly women was 3.667, which is statistically significant. Thus, the hypothesis “There are statistically significant differences among the elderly men and the elderly women in the decision-making role” is accepted. It can be inferred from table 5.18 that there exist significant differences in the decision-making power among the elderly men and the elderly women. It implies that, based on the decision-making role of the elderly in household activities, senior citizens still have the decision-making power, especially for the male senior citizens. It has

been historically true that in many cultures, particularly in patriarchal societies where traditional gender roles have assigned elderly men as heads of households and decision-makers.

Having analysed the decision-making role of senior citizens in rural areas of Kerala, an independent t-test was used to make a comparison between the elderly workers and the elderly care-givers in terms of their decision-making role.

### **Hypothesis**

H: “There are significant differences between the elderly workers and the elderly care-givers in the decision-making role”

The mean and standard deviation of the elderly workers in their decision-making role were 4.6103 and 1.33152 respectively and for the elderly care-givers the mean and standard deviation were 4.4668 and 1.14772, respectively. This indicates that the elderly workers have a little bit decision-making role than the elderly care-givers in rural areas of Kerala. Since, the P value is 0.005 and the t value for the decision-making role between the elderly workers and the elderly care-givers was 1.130, is statistically significant. Thus, the hypothesis “There are significant differences between the elderly workers and the elderly care-givers in the decision-making role” is accepted. It can be inferred from table 5.18 that there exists significant difference in the decision-making role among the elderly workers and the elderly care givers. The elderly workers have a prominent role in in decision-making due to their accumulated knowledge and experience. Their insights might be highly valued, especially in matters that require long-term planning, financial decisions and family guidance.

Following the independent t-test, one-way ANOVA was applied to compare the decision-making role of the senior citizens of the three predominant religions of Kerala.

### **Hypothesis**

H: “There are significant differences in the decision-making role of the senior citizens in different religion”

**Table 5.26**

**Decision-Making Role of the Senior Citizen Based on Individual Characteristics**

Individual Factors		N	Mean	Std. Deviation	F Ratio/ t value	P value
Gender	Male	180	4.7839	1.24896	3.667*	<0.001**
	Female	204	4.3235	1.20268		
Activity	Working	194	4.6103	1.33152	1.130*	0.005**
	Care-giving	190	4.4668	1.14772		
Religion	Hindu	201	4.3423	1.33287	9.009	<0.001**
	Muslim	43	5.1860	0.86564		
	Christian	140	4.6236	1.13655		
	Total	384	4.5393	1.24443		
Marital Status	Married	262	4.7641	1.19578	14.551	<0.001**
	Unmarried	12	4.2333	1.34930		
	Widower	110	4.0373	1.20320		
	Total	384	4.5393	1.24443		
Educational Status	No Schooling	75	4.1253	1.25678	5.646	<0.001**
	Below SSLC	227	4.4648	1.24605		
	SSLC	50	4.9800	1.07152		
	Higher Secondary	11	5.1182	.93895		
	Degree	13	5.6462	.84322		
	PG	2	4.3000	.14142		
	Professional Education	6	5.4833	.74944		
	Total	384	4.5393	1.24443		
Living Arrangement	Living alone	15	4.4267	1.48971	5.892	<0.001**
	Living with spouse only	47	4.7851	.82961		
	Living with spouse and children	218	4.7243	1.20112		
	Living with children	98	4.0592	1.18320		
	Living with others	6	4.0167	3.05968		
	Total	384	4.5393	1.24443		

Source: Computed from primary data

\*t-value of independent t-test

\*\*Significant P- value

The mean and standard deviation of the Hindu senior citizens in their decision-making role in household affairs were 4.3423 and 1.33287 respectively and that of the Muslim senior citizens were 5.1860 and 0.86564 respectively. The mean and standard deviation of the Christian senior citizens in the level decision-making role were 4.6236 and 1.13655 respectively. Since, the P-value is less than 0.001 and the F-ratio of decision-making role of the senior citizens was 9.009, the hypothesis “There are significant differences in the decision-making role of the senior citizens in different religion” was accepted. It can be conjectured that the decision-making role was comparatively high among the senior citizens of the Muslim religion and comparatively is low among the Hindu senior citizens. In rural areas of Kerala, Hindu senior citizens have low economic knowledge, least access to economic institutions and less sources of economic knowledge, thereby the decision-making role was also low among the Hindu senior citizens.

In the analysis of decision-making role of the senior citizens, the present study also made an attempt to have a multiple comparison between the senior citizens who belong to different religion. The post-hoc table shows that the comparison of Hindu senior citizens with the Muslim senior citizens and Christian senior citizens was significant. The comparison between the Muslim senior citizens and Christian senior citizens also found significant.

**Table 5.27**  
**Post-hoc Table of the Decision-Making Role of the Senior Citizens Based on Religion**

<b>Religion (I)</b>	<b>Religion (J)</b>	<b>Mean Difference (I-J)</b>	<b>Standard Error</b>	<b>P value</b>
<b>Hindu</b>	Muslim	-0.84376*	0.20485	<0.001**
	Christian	-0.28128*	0.13421	0.037**
<b>Muslim</b>	Hindu	0.84376*	0.20485	<0.001**
	Christian	0.56248*	0.21257	0.008**
<b>Christian</b>	Hindu	0.28128*	0.13421	0.037**
	Muslim	-0.56248*	0.21257	0.008**

Source: Computed from primary data

The mean difference is significant at the 0.05 level

\*\*Significant P value

In the same way the present study attempts to find out the decision-making role of the senior citizens in household affairs among the married, unmarried, and widowed senior citizens.

**Hypothesis**

H: “There are significant differences in the decision-making role among the married, unmarried, and widowed senior citizens”

The mean and standard deviation of the married senior citizens the in decision-making were 4.7641 and 1.19578 respectively, while that of the unmarried senior citizens were 4.2333 and 1.34930 respectively. The mean and standard deviation of the widowers in decision making were 4.0373 and 1.20320 respectively. Since the F-ratio is 14.551 and the P value is less than 0.001, which is statistically significant. Thus, the hypothesis “There are significant differences in the decision making among the married, unmarried, and widowed senior citizens” was accepted. From this analysis it can be concluded that the married senior citizens occupy a predominant role rather than the unmarried and widowed senior citizens. The widowed senior citizens have the least decision-making role in the household affairs of their families because after the loss of their spouse, particularly the elderly widows, stand apart from their active roles. Behind all these, cultural and societal norms toward widowed senior citizens have historically limited the decision-making roles of the widowed senior citizens.

**Table 5.28**  
**Post-hoc Table of Decision-Making Role of the Senior Citizens Based on Marital Status**

<b>Marital Status (I)</b>	<b>Marital Status (J)</b>	<b>Mean Difference (I-J)</b>	<b>Standard Error</b>	<b>P value</b>
<b>Married</b>	Unmarried	0.53079	0.35502	0.136
	Widower	0.72685	0.13663	<0.001**
<b>Unmarried</b>	Married	-0.53079	0.35502	0.136
	Widower	0.19606	0.36561	0.592
<b>Widower</b>	Married	-0.72685	0.13663	<0.001**
	Unmarried	-0.19606	0.36561	0.592

Source: Computed from primary data

The mean difference is significant at the 0.05 level

\*\*Significant P value

A Post-hoc test was conducted to have a multiple comparison among the married, unmarried, and widowed senior citizens and it was inferred that the difference between married and widowed senior citizens was significant.

Later the study tries to evaluate the decision-making role of the senior citizens based on their level of education.

### **Hypothesis**

H: “There are significant differences in the decision-making role of the senior citizens based on their education”

The mean and standard deviation for the decision-making role of the senior citizens, who have no school years, was 4.1253 and 1.25678 respectively and that of the senior citizens who have education below SSLC were 4.4648 and 1.24605 respectively. The mean of the senior citizens who have completed SSLC, higher secondary and degree were 4.9800, 5.1182 and 5.6462 respectively. The mean and standard deviation of the post-graduated senior citizens were 4.3000 and 0.14142 and that of the professionally qualified senior citizens were 5.4833 and 0.74944, respectively. Since the F-ratio is 5.646 and the P-value is less than 0.001, which is significant, the hypothesis “There are significant differences in the decision-making role of the senior citizens based on their education” is accepted. Hence, it can be inferred from the analysis that the senior citizens who are highly educated have greater decision-making power in the household affairs than the less educated or have no education except the case of the senior citizens who completed their post-graduation.

The Post-hoc result given in table 5.29 elucidates that the comparison of decision-making role of the illiterate senior citizens with the senior citizens who were educated below SSLC, SSLC, completed higher secondary, degree and professional degree was significant. While comparing the differences in the decision-making role of the senior citizens who educated below SSLC with the senior citizens who passed SSLC, degree and professional degree, the study find out that the differences were significant.

**Table 5.29**  
**Post-hoc table of Decision-Making Role of the Senior Citizens Based on**  
**Level of Education**

<b>Level of Education (I)</b>	<b>Level of Education (J)</b>	<b>Mean Difference (I-J)</b>	<b>Standard Error</b>	<b>P value</b>
<b>Illiterate</b>	Below SSLC	-0.33942	0.16002	0.035**
	SSLC	-0.85467	0.21936	<0.001**
	Higher secondary	-0.99285	0.38792	0.011
	Degree	-1.52082	0.36096	<0.001**
	PG	-0.17467	0.86083	0.839
	Professional Education	-1.35800	0.50974	0.008**
<b>Below SSLC</b>	Illiterate	0.33942	0.16002	0.035**
	SSLC	-0.51524	0.18770	0.006**
	Higher secondary	-0.65342	0.37093	0.079
	Degree	-1.18140	0.34264	0.001**
	PG	0.16476	0.85331	0.847
	Professional Education	-1.01858	0.49694	0.041**
<b>SSLC</b>	Illiterate	0.85467	0.21936	<0.001**
	Below SSLC	0.51524	0.18770	0.006**
	Higher secondary	-0.13818	0.40013	0.730
	Degree	-0.66615	0.37405	0.076
	PG	0.68000	0.86640	0.433
	Professional Education	-0.50333	0.51910	0.333
<b>Higher secondary</b>	Illiterate	0.99285	0.38792	0.011**
	Below SSLC	0.65342	0.37093	0.079
	SSLC	0.13818	0.40013	0.730
	Degree	-0.52797	0.49221	0.284
	PG	0.81818	0.92358	0.376
	Professional Education	-0.36515	0.60977	0.550
<b>Degree</b>	Illiterate	1.52082	0.36096	<0.001**
	Below SSLC	1.18140	0.34264	0.001**
	SSLC	0.66615	0.37405	0.076
	Higher secondary	0.52797	0.49221	0.284
	PG	1.34615	0.91259	0.141
	Professional Education	0.16282	0.59299	0.784
<b>PG</b>	Illiterate	0.17467	0.86083	0.839
	Below SSLC	-0.16476	0.85331	0.847
	SSLC	-0.68000	0.86640	0.433
	Higher secondary	-0.81818	0.92358	0.376
	Degree	-1.34615	0.91259	0.141
	Professional Education	-1.18333	0.98100	0.228
<b>Professional Education</b>	Illiterate	1.35800	0.50974	0.008**
	Below SSLC	1.01858	0.49694	0.041**
	SSLC	0.50333	0.51910	0.333
	Higher secondary	0.36515	0.60977	0.550
	Degree	-0.16282	0.59299	0.784
	PG	1.18333	0.98100	0.228

Source: Computed from primary data

The mean difference is significant at the 0.05 level

\*\*Significant P value

As an addition to the existing analysis the current study makes an effort to compare senior citizens who were living in various living arrangements in terms of their decision-making capacity.

**Table 5.30**  
**Post-hoc Table of Decision-Making Role of the Senior Citizens Based on**  
**Living Arrangement**

Type of living (I)	Type of living (J)	Mean Difference (I-J)	Standard Error	P value
<b>Living alone</b>	Living with spouse only	-.35844	.35996	.320
	Living with spouse and children	-.29765	.32401	.359
	Living with children Only	.36748	.33654	.276
	Living with others	.41000	.58633	.485
<b>Living with spouse only</b>	Living alone	.35844	.35996	.320
	Living with spouse and children	.06079	.19521	.756
	Living with children Only	.72592*	.21536	.001
	Living with others	.76844	.52622	.145
<b>Living with spouse and children</b>	Living alone	.29765	.32401	.359
	Living with spouse only	-.06079	.19521	.756
	Living with children Only	.66513*	.14762	.000
	Living with others	.70765	.50231	.160
<b>Living with children Only</b>	Living alone	-.36748	.33654	.276
	Living with spouse only	-.72592*	.21536	.001
	Living with spouse and children	-.66513*	.14762	.000
	Living with others	.04252	.51048	.934
<b>Living with others</b>	Living alone	-.41000	.58633	.485
	Living with spouse only	-.76844	.52622	.145
	Living with spouse and children	-.70765	.50231	.160
	Living with children Only	-.04252	.51048	.934

Source: Computed from primary data

The mean difference is significant at the 0.05 level

\*\*Significant P value

### Hypothesis

H: "There are significant differences in the decision-making role of the senior citizens based on their living arrangement"



The mean and the standard deviation of the decision-making role of the senior citizens living alone were 4.4267 and 1.48971, respectively and that of the senior citizens living with the spouse only were 4.7851 and 0.82961, respectively. Senior citizens living with the spouse and children have the mean and standard deviation of 4.7243 and 1.20112, respectively in the decision-making role in household affairs. The mean and standard deviation of the senior citizens living with children were 4.0592 and 1.18320 respectively and the senior citizens living with others were 4.0167 and 3.05968 respectively. Since the F-ratio is 5.892 and the P-value is less than 0.001, which is significant, the hypothesis “There are significant differences in the decision-making role of the senior citizens based on their living arrangement” was accepted. From the analysis it could be concluded that the senior citizens living with the spouse and with spouse and children have greater decision-making role and the least decision-making power is attributed for the seniors who are living with their children and others.

The Post-hoc table of the decision-making role of the senior citizens based on their living arrangement explicated that the differences in the comparison of the senior citizens, who were living with children only, with the senior citizens living with their spouse and children and the senior citizens living with their spouse only were found significant.

The role of senior citizens in the decision-making process is significant and multifaceted because while the senior citizen’s decisions can be valuable, family dynamics should ideally be collaborative and considerate of the perspectives of all members. The senior citizens often possess a wealth of life experience and accumulated wisdom. Their insights and advices guide the younger generations in making informed choices, to follow values and traditions and for their life planning.

## **5.5 Structural Equation Model of Economic Independence and Productive Engagement at Old Age**

This section provides an analysis of the second objective of the present research study, which is to investigate the role that the personal responsibility performs as a mediator in the connection that exists between the economic independence and encouragement of productive engagement. The IBM SPSS AMOS Graphics 21 software package was used for the development of the mediation model, and the bootstrapping method was used for the purpose of evaluating the significance of the mediation in the model. Both of these methods were utilised in order to ensure that accurate results were obtained.

### **5.5.1 Mediation Analysis; An Overview**

A mediation model is a type of statistical model that tries to find out and explain the mechanism or process behind an observed relationship between an independent variable and a dependent variable by adding a third hypothetical variable called a mediator variable. This is done by putting the independent variable in the model as one of the variables (also a mediating variable, intermediary variable, or intervening variable). In a mediation model, the independent variable does not have a direct effect on the dependent variable. Instead, the independent variable affects the mediator variable, which then affects the dependent variable. In other words, the mediator variable has more of an effect on the dependent variable than on the independent variable. So, the function of the mediator variable is to show how the relationship between the independent variable and the dependent variable works. The goal of a mediation analysis is to learn more about a relationship that has already been established. This is done by looking into how one variable affects another variable through a mediator variable.

In this study, the economic independence is the independent variable, encouraging productive participation is the dependent variable, and personal responsibility is the variable that links the two. The bootstrapping method was used so that the model could be looked at for indications of a mediation effect, which is also called an indirect effect.

In order to evaluate the significance of the model's mediation function, the bootstrapping approach was put in to use. The mediation model was developed through the use of covariance-based structural equation modelling and the IBM SPSS AMOS Graphics 21 software package. Both of these methods were employed in order to develop the model.

### **5.5.2 Hypothesis Formulation and Conceptual Model Building**

It was believed that engaging in productive activities helped the senior citizens to support themselves and save money for their later years. One gains economic freedom when they reach financial independence without experiencing a drop in their level of living. Such economic independence offers important perspectives into how crucial and necessary productive engagement satisfaction is for senior citizens in their later years (Lisa Perrone, 2015). Since their current income is directly related to their prior experiences with unfair opportunities, specific sorts of jobs, ignorance, and a lack of amenities, senior citizens are more vulnerable to poverty. They can support their families and avoid poverty if their economic independence is increased and they are given a reliable source of income. (Jariah Masud, 2015).

Human Capital theory is used as the base for the theoretical framework of the entire study. The theory focuses on the idea that individuals can improve their economic productivity and well-being through investment in education, training, and skill development. Thus, human capital refers to the skills, knowledge, experience, and attributes possessed by individuals that contribute to their economic and productive potential. It is a critical concept in economics because it refers to the idea that people's abilities and talents can be considered as precious asset that can yield return in the form of increased productivity and improved well-being.

The proposed model "Model of Economic Independence and Productive Engagement at Older Age" provide an explanation to how economic independence and productive engagement are related. The present study defines economic independence as "expanding the capacity of an individual to make genuine choices in all spheres of life. It can be better achieved by imparting economic knowledge, providing access to economic institutions, widening sources of economic socialisation, and enlarging decision-making role". In the Model of Economic Independence and Productive Engagement at Older Age, the four constructs of economic independence are:

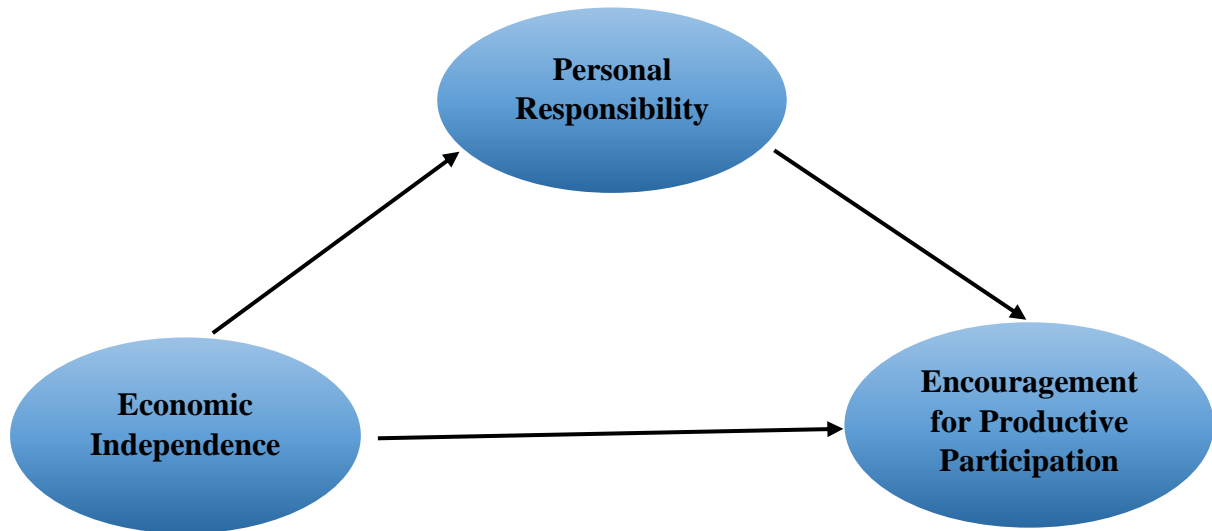
1. Independent Access to Economic Institutions
2. Economic Knowledge
3. Sources of Economic Socialisation
4. Decision-making Role

As per human capital theory, these constructs can be considered as the determinants of human capital, because investment in such constructs increases the human capital and thereby increase their productivity and well-being. Thus, it can be assumed that the economic independence increases the productivity of the senior citizens. In India, senior citizens were included in the unproductive category in the economy. Elderly people should be given the opportunity to gain knowledge about the necessary laws and regulations. Encouragement of increased awareness and economic literacy is required, particularly among the senior citizens. The government has put in place initiatives and plans aimed at promoting advantages for the senior citizens. However, it is essential to make more advancements to ensure that they are productive.

At the present juncture of Kerala, the change is inevitable because the greying population has reached beyond the affordable capacity of the economy. Thus, for the sake of the senior citizens themselves and for the economy it is necessary to make senior citizens to be productive. As a citizen of society, all individuals were responsible for the welfare of the society. At this background, the "Model of Economic Independence and Productive Engagement at Old Age"

also analyse the role of personal responsibility in encouraging the senior citizens for productive engagement.

**Figure 5.2**  
**Conceptual Model of the “Model of Economic Independence and Productive Engagement at Older Age”**



In the present study, a conceptual model was built for the best fit of the “Model of Economic Independence and Productive Engagement at Older Age” is shown in figure 5.2. Conceptual model building is a crucial step in developing a Structural Equation Model (SEM). It serves as the foundation for the entire SEM analysis, guiding the formulation of hypothesis, the selection of variables, and the specification of relationships among the constructs. It outlines the theoretical framework and the expected relationships among the independent and dependent variables.

The conceptual model given in figure 5.2, hypothesize that the relationship between economic independence and encouragement for productive engagement mediated by one intermediate variable personal responsibility and specifies the pathways of relationships. Based on the conceptual model, the following hypothesis developed:

### **Hypothesis**

H: Personal responsibility of the senior citizens has a mediating role between the economic independence and encouraging factors for productive engagement.

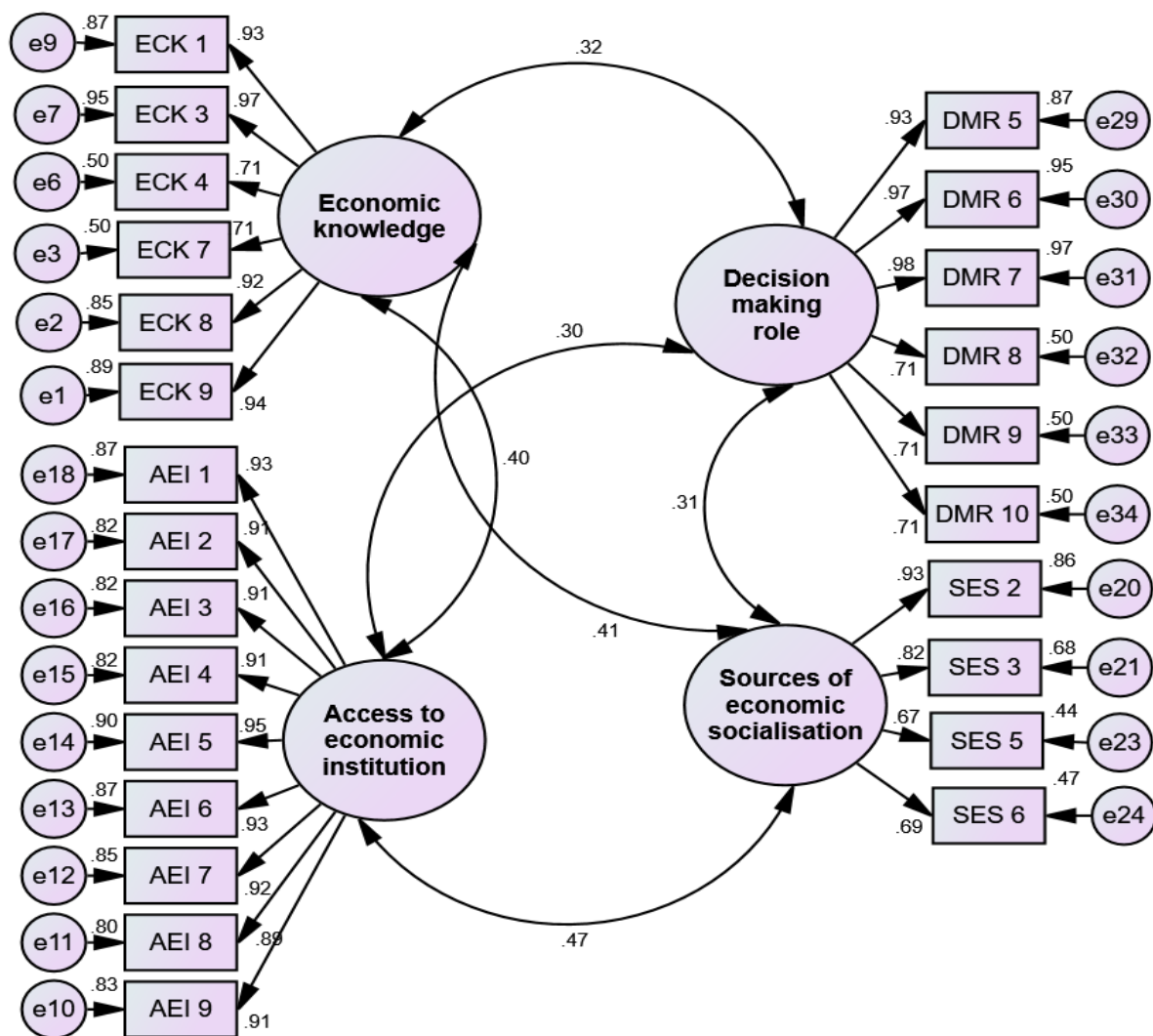
To test the hypothesis about the underlying relationship between the independent and dependent variables, Confirmatory Factor Analysis (CFA) was employed. CFA is used to assess whether their hypothesized model fits the observed data well. If the fit is good, it provides support for the theoretical framework.

### 5.5.3 Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) was used to reduce the overall number of observed variables into latent factors based on commonalities within the data. The observed variables of constructs such as economic knowledge, access to economic institution, decision-making role and sources of economic socialisation after CFA were portrayed in the figure 5.3.

Figure 5.3

Confirmatory Factor Analysis for the Constructs in the Mediation Model



Source: Primary Data

The observed variables of the construct economic knowledge were cash transactions (ECK1), transactions using cheque (ECK3), loan schemes (ECK4), insurance (ECK7), welfare scheme (ECK8), and subsidies and discounts for the elderly (ECK9). Bank and Society (AEI1), hospital (AEI2), health centre (AEI3), medical shop (AEI4), administrative offices (AEI5),

transportation facilities (AEI6), Akshay e-centre (AEI7), religious centres (AEI8), and markets (AEI9) were the various economic institutions that the senior citizens have access in the rural areas of Kerala. In the current research work, the household affairs in which the senior citizens have role were education of grandchildren (DMR1), marriage of grandchildren (DMR2), job related decisions of children (DMR3), job related decisions of grandchildren (DMR4), purchase of food items, cloths and other essentials (DMR5), purchase of other household items (DMR6), buying and selling of property (DMR7), future savings plan (DMR8), gift to children, grandchildren and others (DMR9), and arrangement of events (DMR10). The sources of economic socialisation of the senior citizens were children (SES2), grandchildren (SES3), social worker (SES5), and media (SES6).

**Table 5.20**  
**Model Fit Indices of the CFA Model for Mediation Analysis**

<b>ATTRIBUTES</b>	<b>CMIN/DF</b>	<b>P-VALUE</b>	<b>GFI</b>	<b>AGFI</b>	<b>CFI</b>	<b>RMSEA</b>
<b>Study model</b>	3.98	0.000	0.937	0.909	0.968	0.031
<b>Recommended value</b>	Acceptable fit [1-5]	Greater than 0.05	Greater than 0.9	Greater than 0.9	Greater than 0.9	Less than 0.08
<b>Literature support</b>	Hair et al., (1998)	Barrett (2007)	Hair et al. (2006)	Hair et al. (2006)	Hu and Bentler (1999)	Hair et al. (2006)

Source: Survey Data

An appropriate model should have a Chi-Square to degrees of freedom ratio of fewer than 5. The value in this instance is 3.98, which is well within the recommended maximum value. The RMSEA score is 0.031, which is far below the recommended threshold level of 0.08. Additionally, the GFI and AGFI values are higher than 0.9, and the CFI is higher than 0.9, where 1.0 denotes a perfect match. As a result, the model fits the data well and is suitable for further research.

**Table 5.21**

**Final Reliability and Validity for Mediation Model**

<b>Factors in the mediation model</b>	<b>Item code</b>	<b>Factor loading</b>	<b>Cronbach's Alpha Final</b>	<b>AVE</b>	<b>Composite Reliability</b>
<b>Economic Knowledge (ECK)</b>	ECK 1	0.93**	0.94	0.76	0.95
	ECK 3	0.97**			
	ECK 4	0.71**			
	ECK 7	0.71**			
	ECK 8	0.92**			
	ECK 9	0.94**			
<b>Accesses to economic institutions (AEI)</b>	AEI 1	0.93**	0.96	0.84	0.98
	AEI 2	0.91**			
	AEI 3	0.91**			
	AEI 4	0.91**			
	AEI 5	0.95**			
	AEI 6	0.93**			
	AEI 7	0.92**			
	AEI 8	0.89**			
	AEI 9	0.91**			
<b>Sources of economic socialisation (SES)</b>	SES 2	0.93**	0.86	0.61	0.86
	SES 3	0.82**			
	SES 5	0.67**			
	SES 6	0.69**			
<b>Decision making role (DMR)</b>	DMR 5	0.93**	0.93	0.72	0.94
	DMR 6	0.97**			
	DMR 7	0.98**			
	DMR 8	0.71**			
	DMR 9	0.71**			
	DMR 10	0.71**			

Source: Primary Data

\*\* denotes significant at 1% level

All the factor loadings between the constructs in the mediation model were more than 0.5, indicating that the constructs have item validity. Cronbach's Alpha values are found to be larger than 0.8, confirming the reliability of the variables employed to quantify the construct. The Composite Reliability scores are more than 0.7, indicating that all of the constructs have a high level of internal consistency reliability. The Average Variance Extracted (AVE) values are also discovered to be more than the recommended level of greater than 0.5. As a result, the constructs exhibit a high degree of convergence. Because all the parameters are within the specified range, the data is suitable for further analysis and modelling.

Having estimated the final reliability and validity of the model, discriminant validity found out to assess whether the measures of the four constructs are truly measuring different underlying concepts and not simply reflecting a single underlying factor. It refers to the degree to which the constructs, which theoretically expected to be distinct, are not simply reflecting a single underlying factor. In a CFA model, to establish discriminant validity it is necessary to demonstrate that the latent constructs are in the model are distinct from each other and highly correlated. In discriminant validity of the CFA model AVE should be higher than the squared correlation between constructs.

**Table 5.22**  
**Discriminant Validity of the CFA Model**

<b>Constructs</b>	<b>ECK</b>	<b>AEI</b>	<b>SES</b>	<b>DMR</b>
<b>ECK</b>	<b>(0.87)</b>			
<b>AEI</b>	0.40	<b>(0.92)</b>		
<b>SES</b>	0.41	0.47	<b>(0.78)</b>	
<b>DMR</b>	0.32	0.30	0.31	<b>(0.85)</b>

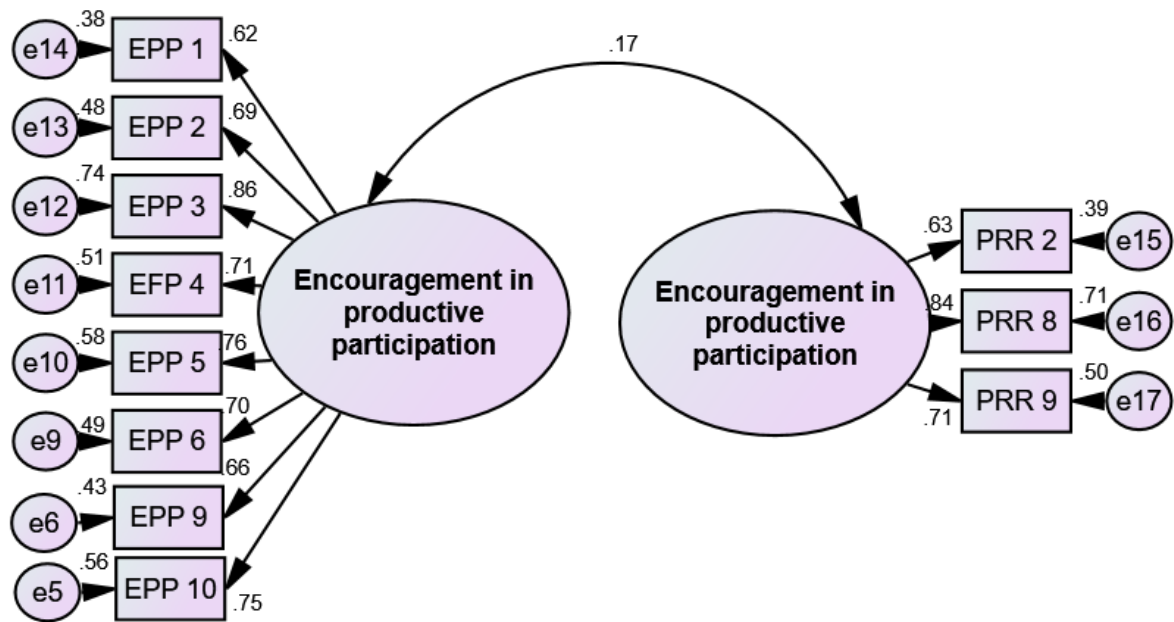
Source: Primary Data

Values in brackets are square root of AVE scores which should be greater than the inter construct latent variable correlation values to establish non-existence of any relationship. Therefore, it can be inferred that no relationship exists among the constructs and discriminant validity has been established among the constructs contained in the mediation model.



Having analysed the CFA of the factors of four constructs of economic independenc, the next is to nalyse the CFA of encoragemnt in productive participation and personal responsibility of the senior citizens.

**Figure 5.4**  
**Confirmatory Factor Analysis for the Productive Participation and Personal Responsibility Constructs**



Source: Primary Data

**Table 5.23**  
**Model Fit Indices of the CFA Model for Mediation Analysis**

ATTRIBUTES	CMIN/DF	P-VALUE	GFI	AGFI	CFI	RMSEA
Study model	2.09	0.000	0.996	0.982	0.999	0.019
Recommended value	Acceptable fit [1-5]	Greater than 0.05	Greater than 0.9	Greater than 0.9	Greater than 0.9	Less than 0.08
Literature support	Hair et al., (1998)	Barrett (2007)	Hair et al. (2006)	Hair et al. (2006)	Hu and Bentler (1999)	Hair et al. (2006)

Source: Primary Data

The value of Chi-Square to the degrees of freedom ratio for an acceptable model should be less than five. In this case, the value is 2.09 which are very well within the suggested maximum value. The RMSEA score is 0.019, well below the accepted threshold score of 0.08. Moreover, the GFI and AGFI values are above 0.9 and CFI is above 0.9 for which 1.0 indicates exact fit. Thus, the model is a good fit and can be considered for further analysis.

**Table 5.24**  
**Final Reliability and Validity for Mediation Model**

<b>Factors</b>	<b>Item code</b>	<b>Factor loading</b>	<b>Cronbach's Alpha Final</b>	<b>AVE</b>	<b>Composite Reliability</b>
<b>Encouragement in productive participation (EPP)</b>	EPP 1	0.62**	0.89	0.52	0.90
	EPP 2	0.69**			
	EPP 3	0.86**			
	EPP 4	0.71**			
	EPP 5	0.76**			
	EPP 6	0.70**			
	EPP 9	0.66**			
	EPP 10	0.75**			
<b>Personal responsibility (PRR)</b>	PRR 2	0.63**	0.76	0.53	0.77
	PRR 8	0.84**			
	PRR 9	0.71**			

Source: Primary Data

\*\* denotes significant at 1% level

From the given table, it can be observed that all factor loadings are more than 0.5, which proves the constructs' item validity. The final values of Cronbach's Alpha are more than 0.8, indicating that the variables used to measure the construct are reliable. The Composite Reliability scores are more than 0.7, indicating that all constructs have a high level of internal consistency reliability. The values of Average Variance Extracted (AVE) also exceed the recommended threshold greater than 0.5. Thus, it can be concluded that the degrees of convergence between the conceptions are rather high. As all of the parameters satisfy the required value, the data is suitable for additional analysis and model development.

AVE square roots and inter construct latent variable correlations are shown above. The square root of AVE scores should exceed the inter construct latent variable correlation values

to rule out a relationship. Table 5.25 explicates that the dimensions have no link and discriminant validity for promoting productive participation and personal responsibility.

**Table 5.25**  
**Discriminant Validity Between the Constructs, Encouragement in Productive Participation and Personal Responsibility**

Constructs	EFP	PRR
<b>EFP</b>	<b>(0.72)</b>	
<b>PRR</b>	0.17	<b>(0.73)</b>

Source: Primary Data

### 5.5.4 Structural Equation Modelling

Having conducted the CFA of all constructs in the model, next is structural equation modelling. A mediation model was used in the study for the fitting of the conceptual model. A mediation model is a kind of SEM that explores the indirect effect of an independent variable on a dependent variable through one or more intermediate variables, known as mediators. Thus, in the present the mediation model seeks to understand the process through which economic independence influences the encouragement for productive participation by examining the role of personal responsibility, that intervenes between economic independence and encouragement for productive participation. In a mediation it is necessary to specify the three main relationship paths. They are

1. The direct effect of the independent variable on the dependent variable without considering the mediator.
2. The effect of the independent variable on the mediator.
3. The effect of the mediator on the dependent variable while controlling for the independent variable

In the present model economic independence is the independent variable, encouragement for productive participation is the dependent variable and personal responsibility is the mediating factor. In this model, all the factors of the four constructs of economic independence were combined i.e., Access to Economic Institutions (AEI), Economic Knowledge (ECK), Sources of Economic Socialisation (SES) and Decision-making Role (DMR), which were together constitute economic independence of the senior citizens. Based on these paths, three mediation effect hypothesis and the mediating role hypothesis were articulated.

**Mediation Effect Hypothesis 1**

H: Economic independence has positive and direct effect on encouragement for productive participation.

**Mediation Effect Hypothesis 2**

H: Economic independence has positive and direct effect on personal responsibility

**Mediation Effect Hypothesis 3**

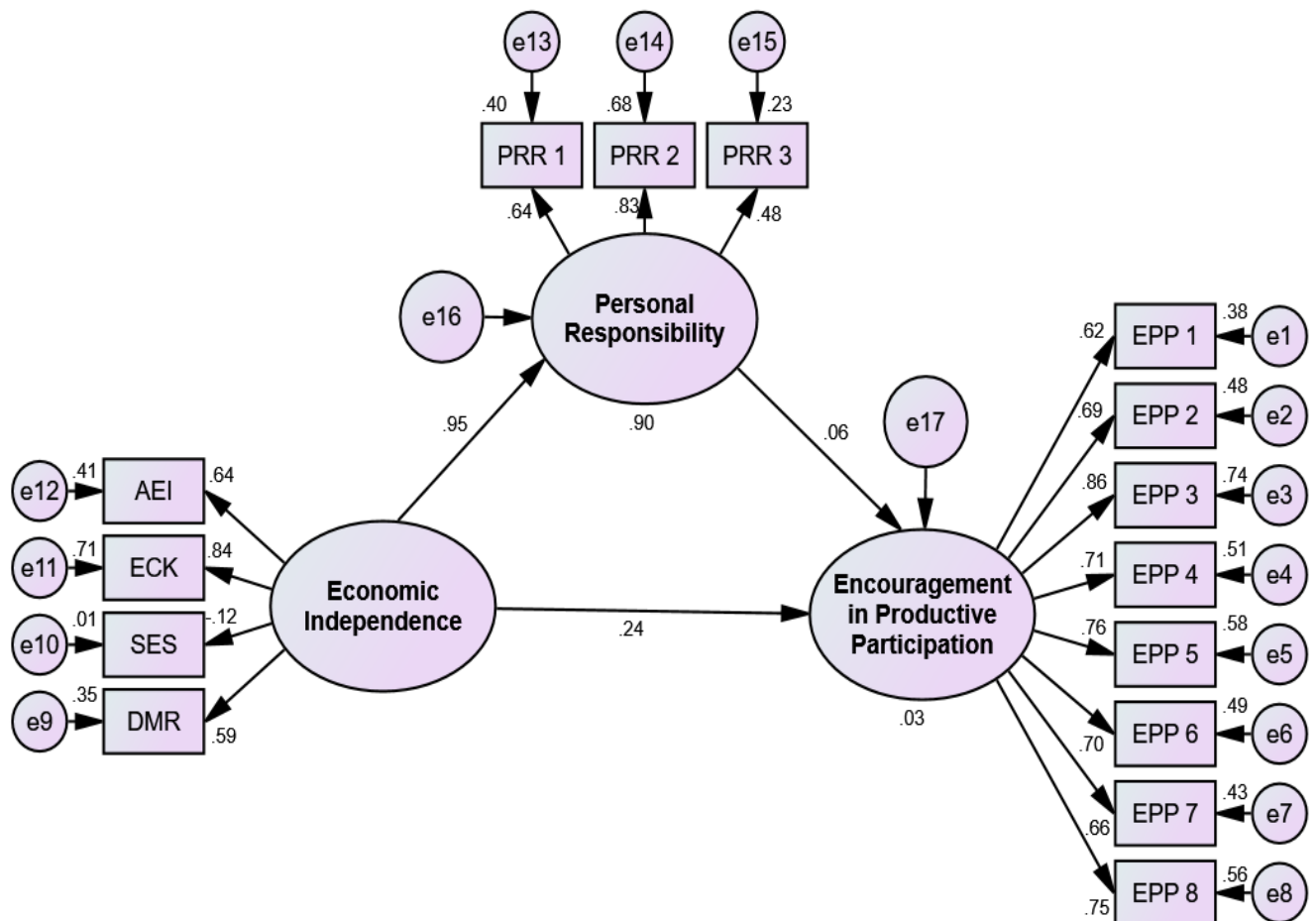
H: Personal responsibility has positive and direct effect on encouragement for productive participation.

**Mediation Role Hypothesis**

H: Personal responsibility has a mediating role in the relationship between Economic independence and encouragement for productive participation.

**Figure 5.5**

**A Model of Mediation that Examines the Indirect Link Between Economic Independence and the Encouragement of Productive Participation via Personal Responsibility**



Source: Primary Data

**Table 5.26**  
**Fit Indices for Testing the Mediation Model**

ATTRIBUTES	CMIN/DF	P-VALUE	GFI	AGFI	CFI	RMSEA
<b>Study model</b>	2.209	0.000	0.990	0.978	0.997	0.029
<b>Recommended value</b>	Acceptable fit [1-5]	Greater than 0.05	Greater than 0.9	Greater than 0.9	Greater than 0.9	Less than 0.08
<b>Literature support</b>	Hair et al., (1998)	Barrett (2007)	Hair et al. (2006)	Hair et al. (2006)	Hu and Bentler (1999)	Hair et al. (2006)

Source: Primary Data

The number of degrees of freedom should be less than 5 for a model to be right. In this case, the result is 2.209, which is well below the limit that was set. The RMSEA score is 0.029, which is well below the minimum level of 0.08 that is recommended. Also, the GFI, AGFI, and CFI values are all higher than 0.9. A value of 1.0 means an exact match. So, it can be said that the model of mediation works well. The path values and direct effects in the mediation model was displayed in table 5.27.

**Table 5.27**  
**Path Values of Direct Effects in the Mediation Model**

Construct	Path	Construct	Estimate	S. E	C. R	P-value	Result
Encouragement in productive participation	←	Economic independence	0.24	0.029	3.423	<0.001**	Significant
Personal responsibility	←	Economic independence	0.95	0.031	13.98	<0.001**	Significant
Encouragement in productive participation	←	Personal responsibility	0.06	0.028	1.290	0.302 <sup>NS</sup>	Not Significant

Source: Primary Data

\*\* denotes significant at 1% level

Table 5.27 and figure 5.4 illustrate the direct and positive relationship between the economic independence and encouragement in productive participation, as well as the positive and direct relationship between personal responsibility and encouragement in productive participation. Similarly, the economic independence and personal responsibility have a relationship that is both positive and direct. It has been observed that the economic independence has a positive and significant effect on the encouragement in productive participation with a path value of 0.24, that the economic independence has a positive and significant effect on the personal responsibility with a path value of 0.95, and that the personal responsibility has a positive and non-significant effect on the encouragement in productive participation with a path value of 0.06. Standardized regression coefficients are the values that are associated with each path, and they indicate the amount of change that occurs in the dependent construct in response to a change in the independent variable that is equal to one standard deviation unit. This change in the independent variable is what causes the standardised regression coefficients to be calculated. Table 5.28 contains a listing of the values that are connected to the various paths that can be taken.

**Table 5.28**

**Result of the Summary of the Hypotheses Testing (Direct Effects) in the Mediation Model**

<b>Construct</b>	<b>Path</b>	<b>Construct</b>	<b>Hypotheses</b>	<b>Result</b>
Encouragement in productive participation	←	Economic independence	Economic independence has positive and direct effect on encouragement in productive participation.	<b>Supported</b>
Personal responsibility	←	Economic independence	Economic independence has positive and direct effect on personal responsibility.	<b>Supported</b>
Encouragement in productive participation	←	Personal responsibility	Personal responsibility has positive and direct effect on encouragement in productive participation.	<b>Not Supported</b>

Source: Primary Data

**Table 5.29**

**Mediating Testing in the Model (Direct and Indirect Effect Paths) Using Bootstrapping Procedure**

<b>Independent construct</b>	<b>Mediation construct</b>	<b>Dependent construct</b>	<b>Direct effect</b>	<b>Indirect effect</b>	<b>Result</b>
Economic independence	Personal responsibility	Encouragement in productive participation	0.24**	0.06 <sup>NS</sup>	<b>No mediation</b>

Source: Primary Data

\*\* denotes 1% significant level;

NS denotes Not Significant; indirect effect values are computed through bootstrapping procedure with 5,000 bootstrap samples.

Table 5.29 narrates that economic independence and encouragement in productive participation have a direct and positive effect, but there is no significant indirect effect (mediation effect) of the economic independence and encouragement in productive participation via personal responsibility. In this study, the bootstrapping (5000 bootstrap samples) and IBM-SPSS-AMOS Graphics -21 software packages are used to assess the mediating effects of different routes. No partial mediation says that no mediation effect of personal responsibility is discovered in the link between the economic independence and encouragement to participate in productive activities. However, a direct influence may be seen in the link between the economic independence and the incentive to participate in productive activities.

According to the statistical findings, the economic independence of the senior citizens promotes productive participation, and the personal responsibility of the senior citizens does not play a role as a mediator in the link between the economic independence and the productive participation of the senior citizens. In short, it can be inferred that senior citizens in rural areas of Kerala do not have enough personal responsibility to get involved and make a positive and productive contribution to society. The senior citizens in rural areas can be encouraged only by creating economic independence among the senior citizens.

## 5.6 Summary of the Chapter

The chapter explored the socio-economic conditions of the senior citizens, analysed the measures of economic independence based on individual characteristics and fitted the Model of Economic Independence and Productive Engagement at Old Age. This chapter predominantly addressed the second objective, which was to investigate the role that personal responsibility in the relationship between the economic independence and encouragement in productive participation. The objective in particular investigated the role of the personal responsibility in the relationship between encouraging factors for productive participation and economic independence. According to the findings of the mediation test, there was no mediation effect on the personal responsibility observed in the link between the economic independence and the incentive to take part in productive activities. The result of this study indicates that the senior citizens in rural areas of Kerala were engaged in productive activities due to their own preference to work or engage in productive activities. The senior citizens are employed not out of compulsion or obligation. Then the only way to make senior citizens more productive, they must be encouraged to taste the fruits of economic freedom. Thus, the government should initiate measures to help the senior citizens in attaining economic independence, which can be accomplished by providing economic knowledge, widening sources of economic socialisation, facilitating independent access to economic institutions and to promote in their decision-making skills. Any individual or institution cannot force a senior citizen to engage in productive activities, they can be encouraged by making them economically independent. After the age of 60, no senior citizens in the rural areas of Kerala were responsible to work or to engage in productive activities.



## **Chapter 6**

# **Determinants and Outcomes of Productive Engagement of the Senior Citizens in the Rural Areas of Kerala**

## **6.1 Introduction**

The previous chapter explored the socio-economic profile of the senior citizens, the constructs of the economic independence and the structural equation model of the economic independence and productive engagement of the senior citizens in later life in the rural areas of Kerala. As per the objective set up of the study, the present chapter analyses the third objective of the study. The present chapter makes an analysis of the determinants and outcomes of the productive engagement of the senior citizens on their individual well-being, family well-being and social well-being. The analysis further entered in to the aspects of the assets of the senior citizens, the welfare measures provided, the encouraging and discouraging factors which determine the productive engagement of the senior citizens.

## **6.2 Assets and Well-being of the Senior Citizens in the Rural Areas**

The assets include ownership of land, ownership of house, motorbikes, bicycles, cars, and availability of household items like TV, radio, mixer, refrigerator, air conditioner, washing machine, and mobile phone. Ownership of asset is an important indicator of well-being of the senior citizens and it also considered as a symbol of status in the family and in the society. The current study also examines the health status of the senior citizens as well as their knowledge of the initiatives implemented by the government to ensure their well-being. In this, section the assets and well-being are analysed based on the gender and kind of activity that they are involved.

### **6.2.1 Ownership of the Fixed Asset by Gender**

Fixed assets are the long-term asset and it was measured in the wealth of the senior citizens along with their personal finances. Fixed asset purchased or acquired was the outcome of the effort undertaken by the senior citizens. Chi-square test was used to analyse the differences in the ownership of fixed asset among the elderly men and the elderly women.

#### **Hypothesis**

H: There exist significant differences in the ownership of fixed asset among the elderly men and the elderly women.

**Table 6.1**  
**Ownership of Fixed Asset by Gender**

Fixed Asset		Gender		Total	Chi Square result
		Male	Female		
Land	Yes	153	98	251	Value = 57.702 df = 1 P = <0.001*
	No	27	106	133	
	Total	180	204	384	
House	Self-owned	153	96	249	Value = 61.218 df = 2 P = <0.001*
	Owned by another member	27	103	130	
	Rented	0	5	5	
	Total	180	204	384	
Car	Yes	21	12	33	Value = 4.073 df = 1 P = 0.044*
	No	159	192	351	
	Total	180	204	384	
Motor Bike	Yes	32	19	51	Value = 5.948 df = 1 P = 0.015*
	No	148	185	333	
	Total	180	204	384	
Bicycle	Yes	52	28	80	Value = 13.331 df = 1 P = <0.001*
	No	128	176	304	
	Total	180	204	384	
Mobile Phone	Yes	141	138	279	Value = 5.497 df = 1 P = 0.019*
	No	39	66	105	
	Total	180	204	384	

Source: Primary Data

Significance @ 5 percentage level

\* Significant P value

df denotes Degrees of Freedom

The senior citizens in the rural areas of Kerala have specified physical fixed assets including land, house, car, motorbike, bicycle, and mobile phone. The combined chi-square value of the ownership of the land of the elderly men and the elderly women was 57.702 and P-value was less than 0.001 and the combined chi-square value of the ownership of house was

61.218 and the P-value was less than 0.001. The chi-square value of car, motor bike and bicycle were 4.073, 5.948 and 13.331 respectively and the P-values of car and motor bike were 0.044 and 0.015, while P-value of bicycle was less than 0.001. The chi-square value and P-value of mobile phone were 5.497 and 0.019. Since, all the P-values of chi-square test was less than 0.05 for all the fixed assets of the elderly men and the elderly women, the hypothesis “There are significant differences in the ownership of fixed asset among the elderly men and the elderly women” was accepted. Thus, it was concluded that there exists an unequal distribution of the fixed asset among the elderly men and the elderly women. It is an embarrassing fact that discrimination towards women is quite obvious in the distribution of the assets.

As per law, a woman becomes the automatic heir of the property of her spouse after the death of the spouse. At this juncture, it can be observed that even in the old age, majority of the women do not possess fixed physical assets. It is either in the ownership of the husband or distributed equally to the children. Thus, the present study suggests that women should be encouraged to own property in their name and this is likely to increase their level of confidence and induce their economic independence.

### **6.2.2 Ownership of the Fixed Asset by Kind of Activity**

This section makes an attempt to study the ownership of the asset among the elderly workers and the elderly care-givers. Chi square test was conducted to carry out the comparison between the elderly workers and elderly care-givers whether they own asset or not. The result of chi-square test was made known in table 6.2.

#### **Hypothesis**

H: There exist significant differences in the ownership of fixed asset between the elderly workers and the elderly care-givers

**Table 6.2****Ownership of Fixed Asset by Kind of Activity**

Asset		Kind of Activity		Total	Chi Square result
		Working	Care-giving		
Land	Yes	150	101	251	Value = 24.752 df = 1 P = <0.001*
	No	44	89	133	
	Total	194	190	384	
House	Self-owned	144	105	249	Value = 15.745 df = 2 P = <0.001*
	Owned by another member	49	81	130	
	Rented	1	4	5	
	Total	194	190	384	
Car	Yes	19	14	33	Value = 0.719 df = 1 P = 0.397
	No	175	176	351	
	Total	194	190	384	
Motor Bike	Yes	27	24	51	Value = 0.138 df = 1 P = 0.710
	No	167	166	333	
	Total	194	190	384	
Bicycle	Yes	41	39	80	Value = 0.021 df = 1 P = 0.883
	No	153	151	304	
	Total	194	190	384	
Mobile Phone	Yes	136	143	279	Value = 1.286 df = 1 P = 0.257
	No	58	47	105	
	Total	194	190	384	

Source: Primary Data

- Significance @ 5 percentage level
- \* Significant P value
- df denotes Degrees of Freedom

The combined chi-square value of ownership of land of the elderly workers and the elderly care-givers was 24.752 and P-value was less than 0.001 and the combined chi-square value of the ownership of house was 15.745 and the P-value was less than 0.001. The chi-square value of car, motor bike and bicycle were 0.719, 0.138 and 0.021 respectively and the P-values of car and motor bike were 0.397 and 0.710, and 0.883 respectively. The chi-square value and P-

value of mobile phone were 1.286 and 0.257. Since, the P-values of land and house were less than 0.05, the hypothesis “There exist significant differences in the ownership of fixed asset between the elderly workers and the elderly care-givers” was accepted for the fixed assets land and house. Thus, it can be inferred that there exist significant differences between the elderly workers and the elderly care-givers regarding the ownership of land and house. The P-values of fixed assets such as car, motor bike, bicycle and mobile phone were greater than 0.05. Hence, the hypothesis “There exist significant differences in the ownership of fixed asset between the elderly workers and the elderly care-givers” was rejected for the fixed assets such as car, motor bike, bicycle. and mobile phone. It indicates that the differences in the ownership of assets like car, motor bike, bicycle and mobile phone between the elderly workers and the elderly care-givers was not significant.

### **6.2.3 Availability of the Household Items by Gender**

Household items are the things used in a house. Their use makes senior citizen’s work easier and provides satisfaction. This section of the study discusses the availability of household items to the senior citizens. Thus, a chi-square test was conducted to analyse the availability for the elderly men and the elderly women being able to use these household items.

#### **Hypothesis**

H: There exist significant differences in the availability of household items between the elderly men and the elderly women

The combined chi-square value and P-value of radio were 0.078 and 0.780 and that of TV were 0.296 and 0.586, while the mixer have the chi-square value 2.632 and P-value 0.105. the chi-square value of refrigerator and fan were 0.949 and 0.009, respectively and the P-value of refrigerator and fan were 0.330 and 0.924, respectively. The chi-square value and P-value of AC were 0.559 and 0.455 and that of washing machine were 0.859 and 0.354. Since all the P-values are greater than 0.05, the hypothesis “There exist significant differences in the availability of household items between the elderly men and the elderly women” was rejected and hence concluded that there were no significant differences between the elderly men and the elderly women regarding the availability of the household items such as radio, TV, mixer, refrigerator, fan, Ac and washing machine.

**Table 6.3**  
**Availability of Household Items by Gender**

Asset		Gender		Total	Chi Square result
		Male	Female		
Radio	Yes	114	132	246	Value = 0.078 df = 1 P = 0.780
	No	66	72	138	
	Total	180	204	384	
TV	Yes	174	195	369	Value = 0.296 df = 1 P = 0.586
	No	6	9	15	
	Total	180	204	384	
Mixer	Yes	171	185	356	Value = 2.632 df = 1 P = 0.105
	No	9	19	28	
	Total	180	204	384	
Refrigerator	Yes	130	138	268	Value = 0.949 df = 1 P = 0.330
	No	50	66	116	
	Total	180	204	384	
Fan	Yes	175	198	373	Value = 0.009 df = 1 P = 0.924
	No	5	6	11	
	Total	180	204	384	
AC	Yes	11	9	20	Value = 0.559 df = 1 P = 0.455
	No	169	195	364	
	Total	180	204	384	
Washing machine	Yes	17	14	31	Value = 0.859 df = 1 P = 0.354
	No	163	190	353	
	Total	180	204	384	

Source: Primary Data

- Significance @ 5 percentage level
- df denotes Degrees of Freedom

## 6.2.4 Availability of the Household Items by Kind of Activity

Having analysed the availability of household items among elderly men and elderly women, it is important to analyse the availability of household items among the elderly workers and elderly care-givers. For the analysis of the availability of household items to the elderly workers and the elderly care-givers, the chi-square test was used.

**Table 6.4**  
**Availability of Household Items by Kind of Activity**

Asset		Kind of Activity		Total	Chi Square result
		Working	Care-giving		
Radio	Yes	128	118	246	Value = 0.626 df = 1 P = 0.429
	No	66	72	138	
	Total	194	190	384	
TV	Yes	185	184	369	Value = 0.561 df = 1 P = 0.454
	No	9	6	15	
	Total	194	190	384	
Mixer	Yes	177	179	356	Value = 1.255 df = 1 P = 0.263
	No	17	11	28	
	Total	194	190	384	
Refrigerator	Yes	122	146	268	Value = 8.867 df = 1 P = 0.003*
	No	72	44	116	
	Total	194	190	384	
Fan	Yes	185	188	373	Value = 4.437 df = 1 P = 0.035*
	No	9	2	11	
	Total	194	190	384	
AC	Yes	11	9	20	Value = 0.169 df = 1 P = 0.681
	No	183	181	364	
	Total	194	190	384	
Washing machine	Yes	18	13	31	Value = 0.768 df = 1 P = 0.381
	No	176	177	353	
	Total	194	190	384	

Source: Primary Data

- Significance @ 5 percentage level
- \* Significant P value
- df denotes Degrees of Freedom



## **Hypothesis**

H: There exist significant differences in the availability of household items between the elderly workers and the elderly care-givers

The combined chi-square value and P-value of radio were 0.626 and 0.429 and that of TV were 0.561 and 0.454, while the mixer have the chi-square value 1.255 and P-value 0.263. The chi-square value of refrigerator and fan were 8.867 and 4.437, respectively and the P-value of refrigerator and fan were 0.003 and 0.035, respectively. The chi-square value and P-value of AC were 0.169 and 0.681 and that of washing machine were 0.768 and 0.381. The P-value of refrigerator and fan were less than 0.05 and hence the hypothesis “There exist significant differences in the availability of household items between the elderly workers and the elderly care-givers” was accepted, which point out that there exist significant differences among the elderly workers and the elderly care-givers regarding the availability of refrigerator and fan. Since the P-values of radio, TV, mixer, AC and washing machine were greater than 0.05, the hypothesis “There exist significant differences in the availability of household items between the elderly workers and the elderly care-givers” was rejected. Thus, the study specifies that there is no significant difference among the elderly workers and elderly care-givers regarding the availability of household items such as radio, TV, mixer, AC and washing machine.

## **6.2.5 Health Status of the Senior Citizens in the Rural Areas of Kerala**

The quality of life of senior citizens was an important measure of well-being of senior citizens. The qualifying conditions of life of the senior citizens especially in the rural areas were dynamic. It under goes for changes due to the varying conditions of marital status, health status, living arrangement, socio-cultural traditions, financial and economic well-being (Hiremath, 2012). To be active in social and economic activities, the senior citizens must be active and healthy. Thus, the present study intended to analyse the health status of the senior citizens in the rural areas of Kerala. A chi-square test was used to analyse the health status of the working elderly and the elderly care-givers, which is presented in the table 6.5.

## **Hypothesis**

H: “There are significant differences among the elderly workers and the elderly care-givers in Diseases”.

**Table 6.5**  
**Health Conditions of the Senior Citizens**

Disease		Kind of Activity		Total	Chi-square result
		Working	Care-giving		
Diabetics, pressure, cholesterol, thyroid	Yes	106	137	243	Value = 12.602 df = 1 P = <0.001*
	No	88	53	141	
	Total	194	190	384	
Liver diseases	Yes	14	21	35	Value = 1.705 df = 1 P = 0.192
	No	180	169	349	
	Total	194	190	384	
Kidney diseases	Yes	20	34	54	Value = 0.710 df = 1 P = 0.400
	No	174	156	330	
	Total	194	190	384	
Heart diseases	Yes	20	34	54	Value = 4.570 df = 1 P = 0.033*
	No	174	156	330	
	Total	194	190	384	
Other internal organ diseases	Yes	9	7	16	Value = 0.219 df = 1 P = 0.640
	No	185	183	368	
	Total	194	190	384	
Physical body pain	Yes	29	34	63	Value = 0.608 df = 1 P = 0.436
	No	165	156	321	
	Total	194	190	384	
Disability in seeing, hearing and speaking	Yes	28	38	66	Value = 2.090 df = 1 P = 0.148
	No	166	152	318	
	Total	194	190	384	

Source: Primary data

- Significant @ 5 percentage level of significance
- \*Significant P-value
- df denotes Degrees of Freedom

Later life of the senior citizens was the time of ill health. The chi-square value of the senior citizens having the diseases like diabetics, pressure, cholesterol, and thyroid was 12.602 and P-value is less than 0.001. The chi-square value and P-value of liver diseased senior citizens were 1.705 and 0.192 and that of kidney diseased senior citizens were 0.710 and 0.400. The chi-square value of heart disease senior citizens was 4.570 and the P-value was less than 0.001. The chi-square value and P-value of the senior citizens having internal organ diseases other than liver, kidney and heart diseases were 0.219 and 0.640 and that of the senior citizens having physical body pain were 0.608 and 0.436, whereas the chi-square value and P-value of the senior citizens who are disabled in seeing, hearing, and speaking were 2.090 and 0.148. Since the P-value of the diseases such as diabetics, pressure, cholesterol, thyroid and heart diseases are less than 0.05, the hypothesis “There are significant differences among the elderly workers and the elderly care-givers in diseases” was accepted. It is inferred from the study that the differences in the diseases such as diabetics, pressure, cholesterol, thyroid and heart diseases among the elderly workers and the elderly care-givers was significant. It is because the senior citizens, who have heart disease, do not meant to work after the diagnosis. The disease like diabetics, pressure, cholesterol, thyroid is rare among the working elderly in rural areas because they are engaged in the activities which requires physical strength. The P-values of liver diseases, kidney diseases, other internal organ diseases, physical body pain and disability in seeing, hearing and speaking were insignificant, which in turn indicates the differences in these diseases among the elderly workers and the elderly care-givers was not significant.

### **6.2.6 Knowledge of Welfare Measures**

The government implement welfare measures for the senior citizens with a view of helping them to run a healthy, active, empowered, and dignified life. Thus, knowing these measures and utilising these welfare opportunities were very important in ensuring the well-being of the senior citizens. In this session, the one-sample t-test was used to determine the extent of awareness of welfare measures of senior citizens.

One sample t test is executed for taking be fitted inferences where in null hypothesis is rejected at 5 per cent level of significance while comparing the mean with its mid value “four”. Since, the P value is significant and mean value is less than four, senior citizens were not aware of the welfare measures implemented by the government of Kerala. Hence, it is concluded that the senior citizens in the rural areas were not aware of the welfare measures implemented by the Government of Kerala.

**Table 6.6****Awareness of Welfare Measures Implemented by Government of Kerala**

<b>Welfare Measures</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>t value</b>	<b>P-value</b>
Vayomithram Project	384	1.01	0.255	-229.400	<0.001*
Vayoamrutham Project	384	1.01	0.255	-229.400	<0.001*
Age Friendly Panchayath	384	1.01	0.255	-229.400	<0.001*
Mandhahasam	384	1.01	0.255	-229.400	<0.001*
Sayam Prabha Home	384	1.01	0.255	-229.400	<0.001*
Vayomadhuram	384	1.01	0.255	-229.400	<0.001*
Vayokshema Call Centre	384	1.01	0.255	-229.400	<0.001*
Maintenance and Welfare of Parents and Senior Citizens Act 2007	384	1.01	0.255	-229.400	<0.001*
Vayoraksha	384	1.01	0.255	-229.400	<0.001*
Elderly line	384	1.01	0.255	-229.400	<0.001*

Source: Primary Data

### **6.3 Encouraging and Discouraging factors of Productive Engagement of the Senior Citizens for Productive Engagement**

In this session, the study analyses the existence of encouraging and discouraging factors for productive engagement of the senior citizens in the rural areas of Kerala. Active participation of the senior citizens makes their later life healthier and successful. The desire of senior citizens to be productively engaged influenced by various factors. Some factors encourage senior citizens to engage in productive activities while some factors discourage them to engage in productive activities. Thus, a one sample independent t test on computed variables of encouraging factors and discouraging factors was conducted to identify which was strongly exist among the senior citizens in the rural areas of Kerala.

**Table 6.7**  
**One Sample t-test of Encouraging and Discouraging Factors for productive Engagement**

<b>Construct</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>t value</b>	<b>P Value</b>
<b>Encouraging factors</b>	384	5.7907	0.75882	46.244	<0.001**
<b>Discouraging factors</b>	384	4.4193	1.18985	6.905	<0.001**

Source: Primary Data

### **Hypothesis**

H: “There is significant existence of the encouraging factors among the senior citizens in the rural areas”

The encouraging factors for productive participation was measured using 7-point Likert scale with 14 statements. The mean and standard deviation of the encouraging factors for productive engagement were 5.7907 and 0.75882. The t value was 46.244. Since, the P-value was less than 0.001, the hypothesis “There is significant existence of the encouraging factors among the senior citizens in the rural areas” was accepted. Thus, the encouraging factors were existing among the senior citizens of the rural areas of Kerala.

### **Hypothesis**

H: “There is significant existence of the discouraging factors among the senior citizens in the rural areas”

The discouraging factors for productive participation were measured with the help of 7-point Likert scale with 7 factors. The mean and standard deviation of the discouraging factors for productive engagement were 4.4193 and 1.18985. The t value of the discouraging factors was 6.905. Since, the p-value was less than 0.001, the hypothesis “There is significant existence of the discouraging factors among the senior citizens in the rural areas” was accepted. Thus, it was inferred from the analysis that the discouraging factors were existing among the senior citizens in the rural areas of Kerala.

The mean of the encouraging and the discouraging factors for productive engagement of the senior citizens were 5.7907 and 4.4193. By comparing the two means, the mean of the encouraging factors was greater than the mean of the discouraging factors. Hence, it is concluded that the encouraging factors are strongly existing among the senior citizens of the rural area of Kerala than the discouraging factors. The senior citizens, especially in the rural

areas, always want to be active and healthier. They are either working or engaged in self-employment such as cultivation, or assisting in household activities. Because of low population density, they own land and properties. Thus, the senior citizens are always busy in their land, because they do not want to waste their time idle or being inactive.

## **6.4 Productive Engagement in Later Life Model**

Productive Engagement in Later Life Model was incorporated to satisfy the third objective of the study, which is to assess the effect of senior citizens' productive engagement in rural Kerala on their overall well-being considering productive behaviour as a moderating factor. In order to achieve this objective, the approaches of Covariance-Based Confirmatory Factor Analysis (CB-CFA), Structural Equation Modelling (SEM) and chi-square difference test were applied, using the IBM SPSS AMOS Graphics 21 software package and MS Excel. The fitting of the model was accomplished by dividing into three parts. The first section of the model deals with hypothesis development and conceptual model building. The second component uses Covariance Based Confirmatory Factor Analysis to establish various validity and reliability of the study instrument (CB-CFA). The third portion includes verified data for evaluating the Structural Equation Modelling (SEM) and chi-square difference test. In addition, an introduction to SEM approaches is provided. This section concludes with an explanation of hypothesis testing and a summary of the findings.

### **6.4.1 Hypothesis Formulation and Conceptual Model Building**

The human capital theory forms the theoretical background of the study. All individuals have their own skills, knowledge, and abilities and these individuals will be an asset for the economy. Instead of treating senior citizens as unproductive, efforts should be taken to make them economically independent and thereby they constitute the addition to the human capital of the economy. It is necessary that the senior citizens must understand the fact that engaging in productive activities create a proven effect on their overall well-being. Since, the senior citizens were encouraged to participate in the productive activities, they must be encouraged to participate in working than care-giving, because the working senior citizens better off than the care-giving senior citizens. Engaging in work or other meaningful activities can contribute to cognitive stimulation, and to better physical and mental well-being among the senior citizens. Senior citizens continued to work in their autumn years enjoys more financial stability, social interaction and independence than the care-giving senior citizens.

In the present study, the Productive Engagement in Later Life Model attempts to analyse the effect of factors affecting the productive engagement of the senior citizens on the overall

well-being of the senior citizens in the rural areas. According to the Productive Engagement in Later Life Model, factors affecting the productive engagement of the senior citizens were categorised in to three:

1. Social Factors (SOF)
2. Economic Factors (ECF)
3. Public Policy and Programmes (PPP)

The outcome of productive engagement of the senior citizens as per the Productive Engagement in Later Life model was studied under three heads. They are:

1. Outcome on Individual (OI)
2. Outcome on Family (OF)
3. Outcome on Society (OS)

The outcome on individual, family and society is also referred as their individual well-being, family well-being and social well-being respectively. The individual well-being, family well-being and social well-being were collectively constituting the overall well-being of the senior citizens.

The productive behaviour of senior citizens designates the activity in which senior citizens were engaged. The activities of senior citizens in rural areas of Kerala, were categorised in to two. They were:

1. Working
2. Care-giving

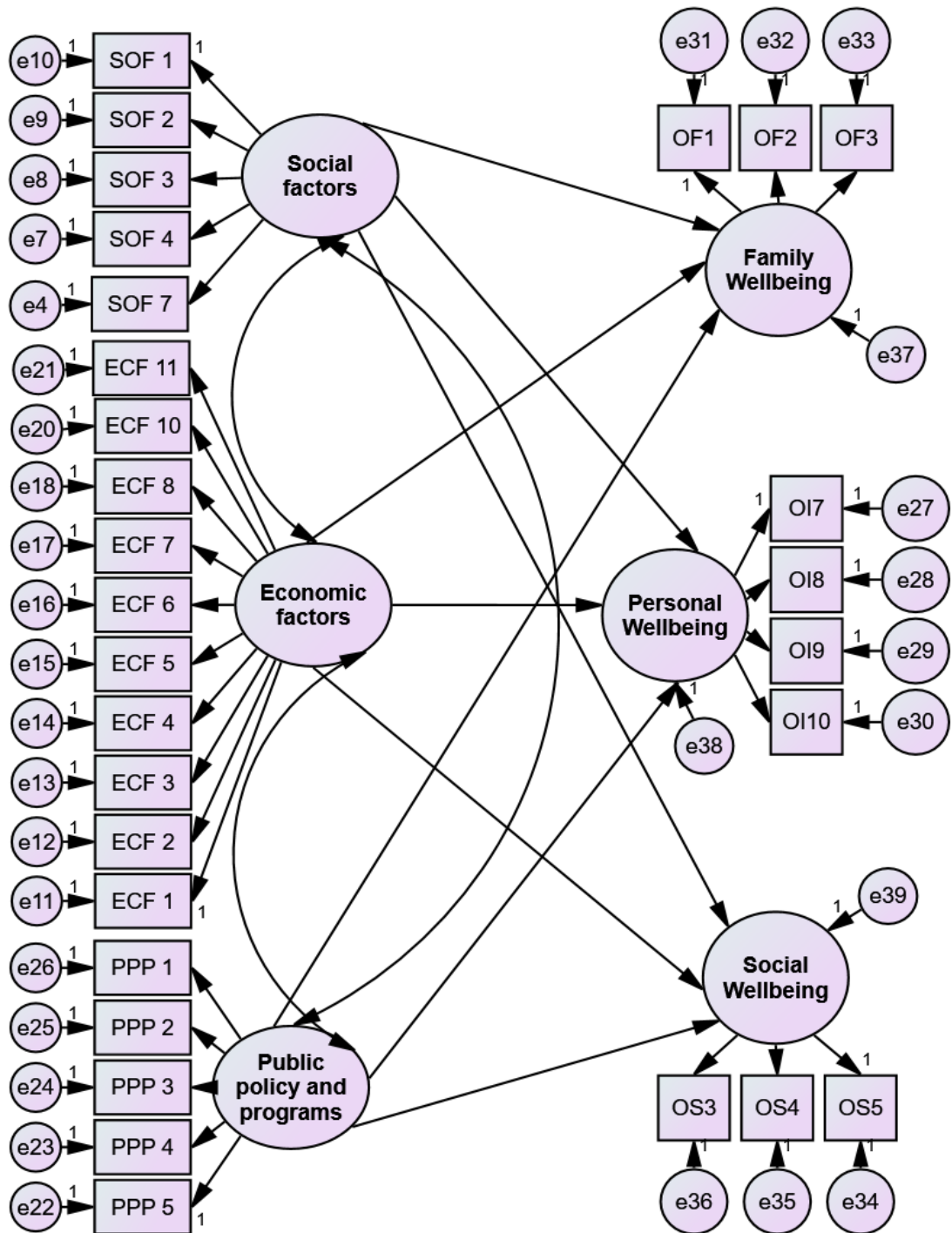
Working includes the paid and non-paid employment and self-employment and senior citizens who are engaged in these activities were termed as workers. Care-giving includes caring children and family, volunteering and household activities and senior citizens who were engaged in these activities were termed as care-givers. The two productive behaviour of the senior citizens necessitates a moderation analysis, because the effect of factors affecting the productive engagement of the senior citizens on the overall well-being of the senior citizens have to analyse separately for the working senior citizens and the care-giving senior citizens.

A moderation model, is a type of SEM, explores how the relationship between two variables changes depending on the level of a third variable. In a moderation model, independent variable is the variable that is hypothesized to influence another variable and dependent variable is the outcome or the response variable of interest. Moderator is the variable that moderate the relationship between the independent variable and the dependent variable. In the Productive Engagement in Later Life Model, the independent factors are the social factors, economic factors and the public policy and programmes, the dependent variables are the

individual well-being, family well-being, and the social well-being and the moderator are the working and care-giving senior citizens.

**Figure 6.1**

**Hypothesized Conceptual Model for the Effects of Productive Engagement of Senior Citizens in Rural Areas of Kerala on their Overall Well-being using Productive Behaviour as a Moderating Factor**



Source: Primary Data



In this backdrop, a hypothesized conceptual model for the effects of productive engagement of senior citizens in rural areas of Kerala on their overall well-being was developed, which is presented in figure 6.1. Conceptual model building serves as a fundamental step to represent and communicate complex ideas relationships and systems. It provides a clear framework for testing the specific hypothesis. The given conceptual moderation model hypothesizes that the effect of the factors affecting the productive engagement of the senior citizens on the overall well-being of the senior citizens is different for the working senior citizens and the care-giving senior citizens. Based on the conceptual model, the following hypothesis developed:

### **Hypothesis**

H: There is significant difference in the effect of factors affecting productive engagement of the senior citizens on over all well-being between the workers and the care-givers.

Confirmatory Factor Analysis (CFA) was used to test the hypothesis, which underlines the relationship between the independent and dependent variables. CFA is used to determine how well their hypothesised model corresponds to the observed data. If the fit is good, the theoretical framework is supported.

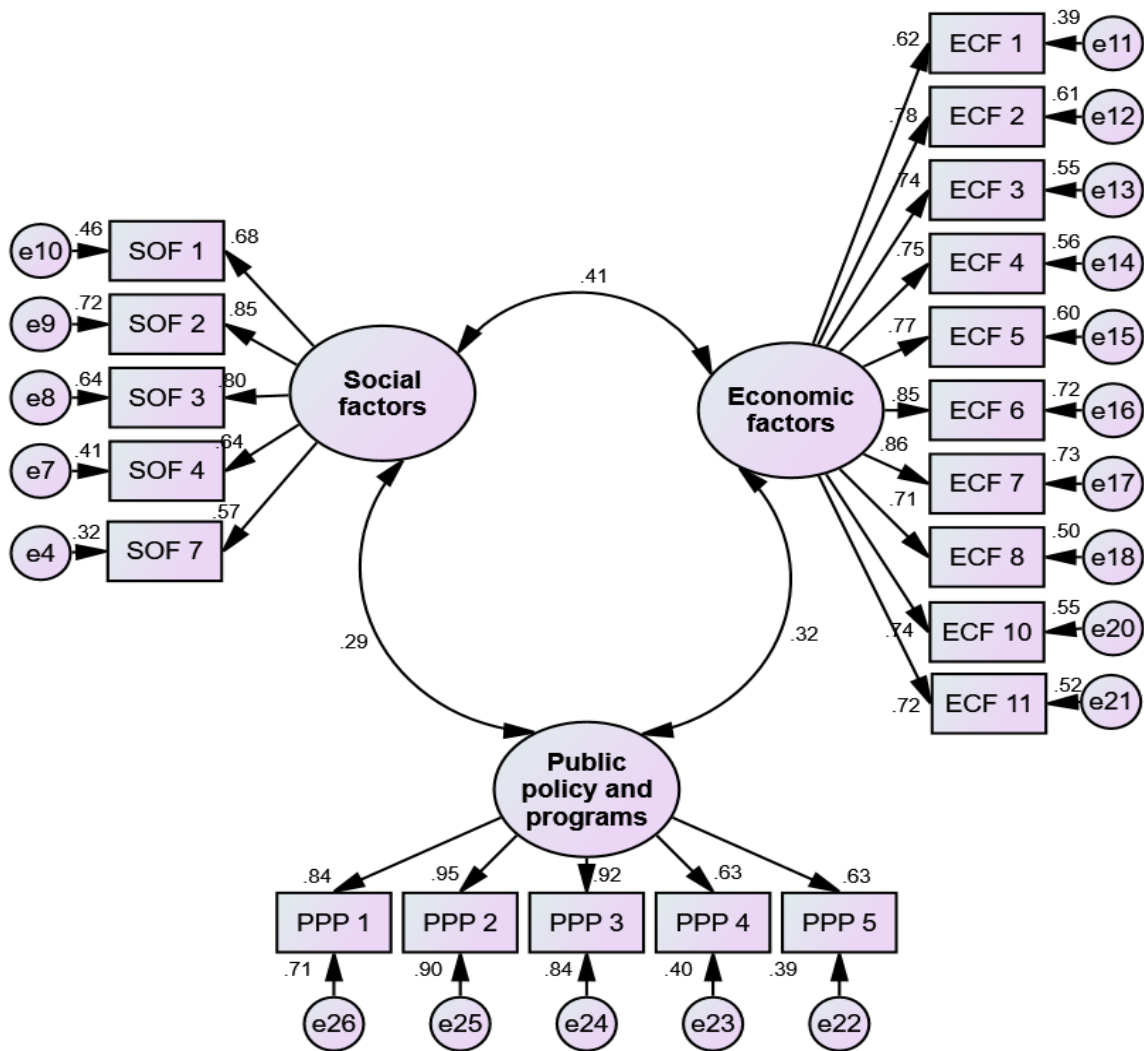
### **6.4.2 Co-variance Based Confirmatory Factor Analysis (CB-CFA)**

Co-variance Based Confirmatory Factor Analysis (CB-CFA), is a statistical technique used in SEM to validate the theoretical constructs and assess the extent to which observed variables measure these constructs. It is particularly used to validate or test a pre-specified theoretical model of how observed variables relate to latent constructs or factors.

The observed variables of Social Factors (SOF) were health (SOF1), support from the family (SOF2), to take care of the family (SOF3), to have a better standard of living (SOF4), and to stay active (SOF7). The Economic Factors (ECF) were increasing expenditure (ECF1), to meet day to day affairs (ECF2), to perform responsibilities (ECF3), to be independent (ECF4), to earn income (ECF5), to secure financial stability (ECF6), financial liabilities (ECF7), unemployed children (ECF8), to satisfy wants (ECF10), and to contribute to the family (ECF11). The observed variables of Public Policy and Programmes (PPP) were incentives and promotional variables (PPP1), more subsidies and assistance (PPP2), welfare measures (PPP3), provide age-friendly environment (PPP4), and insufficient social security measures (PPP5).

Figure 6.2

Confirmatory Factor Analysis for the Factors Affecting Productive Engagement



Source: Primary Data

A model, which is to be considered as valid, the ratio of Chi-Square to degrees of freedom must be less than 5. In this case, the number is 2.184, which is a long way below the suggested upper limit. The RMSEA score of 0.021 is much lower than the minimum value of 0.08 that is allowed. Also, all three fit indices—the GFI, the AGFI, and the CFI—are higher than 0.9, where 1.0 is a perfect fit. Because of this, the model fits well and can be used to do more research.

**Table 6.8**  
**Model Fit Indices for Confirmatory Factor Analysis for the Factors Influencing**  
**Productive Engagement**

<b>ATTRIBUTES</b>	<b>CMIN/DF</b>	<b>P-VALUE</b>	<b>GFI</b>	<b>AGFI</b>	<b>CFI</b>	<b>RMSEA</b>
<b>Study model</b>	2.184	0.021	0.991	0.975	0.995	0.021
<b>Recommended value</b>	Acceptable fit [1-5]	Greater than 0.05	Greater than 0.9	Greater than 0.9	Greater than 0.9	Less than 0.08
<b>Literature support</b>	Hair et al., (1998)	Barrett (2007)	Hair et al. (2006)	Hair et al. (2006)	Hu and Bentler (1999)	Hair et al. (2006)

Source: Primary Data

When performing a confirmatory factor analysis, it is critical to determine both of the concept validity ie., convergent and discriminant validity and the factor reliability ie., composite reliability. These are the instruments used to assess the measurement model. Confirmatory factor analysis (CFA) is a statistical approach for determining whether or not a collection of observed variables has the anticipated factor structure. CFA allows the researcher to test the hypothesis of a link between observable variables and their latent components (Suhr, 2009). The criterion must demonstrate significant validity and reliability.

Composite Reliability (CR) is a measure of the overall reliability of a structure. The value ranges from 0 to 1. Values of composite reliability more than 0.70 are considered satisfactory (Hair et al., 2010). Values less than 0.6 imply internal inconsistency.

There are two ways for determining construct validity: convergent validity and discriminant validity. Convergent Validity implies the concept's components that act as indicators or observable variables must converge or share a significant amount of variance. Convergent validity problems in the validity analysis imply that the observable variables do not effectively reflect the latent component. (Hair et al , 2010). The average variance extracted (AVE) is a more conservative measure of convergent validity than CR (Malhotra et al, 2001). The average variance extracted was used in this study to establish convergent validity. The

AVE value is calculated using standardised factor loadings. The AVE cutoff value is greater than 0.5. Item factor loadings are another indicator of convergent validity. The standardised factor loading cutoff value for showing item validity in this study is more than 0.5. Convergence is good if both the standardised factor loadings and the AVE values are greater than 0.5 (Hair et. al., 2010).

**Table 6.9**  
**Final Reliability and Validity of CFA Model for the Factors Influencing Productive Engagement**

<b>Factors of productive engagement</b>	<b>Item code</b>	<b>Factor loading</b>	<b>Cronbach's Alpha Final</b>	<b>AVE</b>	<b>Composite Reliability</b>
<b>Social factors (SOF)</b>	SOF 1	0.68**	0.83	0.51	0.84
	SOF 2	0.85**			
	SOF 3	0.80**			
	SOF 4	0.64**			
	SOF 7	0.57**			
<b>Public and policy programs (PPP)</b>	PPP 1	0.84**	0.89	0.65	0.90
	PPP 2	0.95**			
	PPP 3	0.92**			
	PPP 4	0.63**			
	PPP 5	0.63**			
<b>Economic factors (ECF)</b>	ECF 1	0.62**	0.92	0.57	0.93
	ECF 2	0.78**			
	ECF 3	0.74**			
	ECF 4	0.75**			
	ECF 5	0.77**			
	ECF 6	0.85**			
	ECF 7	0.86**			
	ECF 8	0.71**			
	ECF 10	0.74**			
	ECF 11	0.72**			

\*\* indicates significant at 1% level

A concept with high discriminant validity is distinct and captures information that other conceptions do not. If the discriminant validity test fails to produce the intended results, it indicates that the variables are substantially linked with variables from other constructs, implying that the latent variable is better characterised by factors other than its own observable variables. To examine discriminant validity, the researcher applied the conservative (Fornell and Larcker, 1981) criterion. The latent variable correlations are compared to the square root of AVE. The AVE of each concept should be a square root greater than the latent variable's connection with other constructs, and this approach may be used to verify discriminant validity.

It can be inferred from table 6.9 that all the factor loadings are higher than the cut-off value of 0.5, which proves the item validity of the constructs. The study used the Cronbach's Alpha reliability test after collecting a lot of data. The final Cronbach's Alpha values are greater than 0.8, which means that the variables used to measure the construct are reliable. All the constructs have Composite Reliability scores that are higher than 0.8. This means that they have high levels of internal consistency reliability. Also, the Average Variance Extracted (AVE) values are higher than 0.5 threshold value that is recommended. This leads to the conclusion that there are significant levels of convergence in all constructs. All the parameters are within the required range, so the data can be used to analyse and build models.

**Table 6.10**

**Discriminant Validity among the Factors of Productive Engagement**

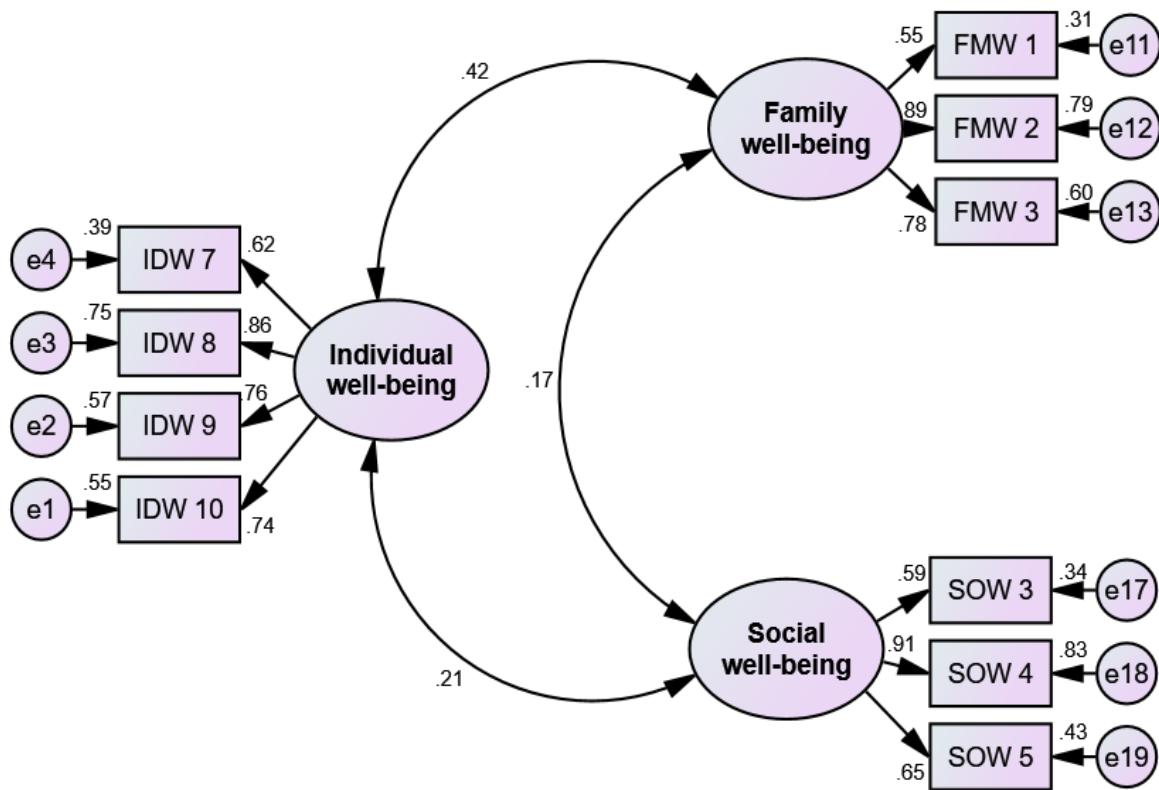
<b>Constructs</b>	<b>SOF</b>	<b>PPP</b>	<b>ECF</b>
<b>SOF</b>	<b>(0.71)</b>		
<b>PPP</b>	0.29	<b>(0.81)</b>	
<b>ECF</b>	0.41	0.32	<b>(0.75)</b>

Source: Primary Data

Numbers in parentheses reflect the square root of the AVE scores, which must be greater than the values of the latent variable correlation in order to prove that there is no link between the various constructs. Table 6.10 establishes the discriminant validity of the elements of productive engagement and makes it clear that there is no correlation between the constructs.

Figure 6.3

Confirmatory Factor Analysis of Factors of Overall Well-being



Source: Primary Data

Individual Well-being (IDW) represent the outcome of productive engagement of the senior citizens for themselves. IDW7, IDW8, IDW9, and IDW10 designate the outcomes such as senior citizens can meet their own expenses, helps to stay healthy and active, helps to gain happiness and satisfaction in life and improves their physical strength and cognitive balance, respectively. These are the outcome of engaging in productive activities on the senior citizens themselves and all these together leads to the personal well-being of the senior citizens in the rural areas of Kerala.

Family Well-being (FMW) denote the outcome of productive engagement of the senior citizens on their family. FMW1, FMW2, and FMW3 express the outcomes such as senior citizens can take care of their family, they can assist in household affairs and can assist in financial affairs, respectively. It leads to enhancement of family well-being. SOW indicate the social well-being, which is the outcome of productive engagement of the senior citizens on society. The significant outcome on society were creating output (SOW3), experienced workforce (SOW4), and trains the next generation (SOW5).

Having explained the observed variables of overall well-being, it is necessary to explicate the model fit indices for CFA of the overall well-being, which is given in table 6.11. It provides important information about how well the proposed model fits the data.

**Table 6.11**  
**Model Fit Indices for CFA Model of Factors of Overall well-being**

<b>ATTRIBUTES</b>	<b>CMIN/DF</b>	<b>P-VALUE</b>	<b>GFI</b>	<b>AGFI</b>	<b>CFI</b>	<b>RMSEA</b>
<b>Study model</b>	1.954	0.000	0.996	0.990	0.998	0.018
<b>Recommended value</b>	Acceptable fit [1-5]	Greater than 0.05	Greater than 0.9	Greater than 0.9	Greater than 0.9	Less than 0.08
<b>Literature support</b>	Hair et al., (1998)	Barrett (2007)	Hair et al. (2006)	Hair et al. (2006)	Hu and Bentler (1999)	Hair et al. (2006)

Source: Primary Data

A model's Chi-Square to degrees of freedom ratio must be less than 1.954, which is notably under the permitted upper limit. The RMSEA score is 0.018, which is well below the limit of 0.08. Whereas 1.0 says an exact match, the GFI, AGFI, and CFI are all more than 0.9. The model can then be researched further as an outcome.

Calculating validity and reliability in CFA is essential for ensuring the quality and credibility of the model and are a critical step in validating the model. CFA indirectly supplies the information about the reliability of the model. Reliability refers to the consistency and stability of measurements overtime. In CFA, both composite reliability and Cronbach's Alpha provides an estimate of internal consistency and reliability and the reliability and validity of CFA of overall well-being is given in table 6.12.

All the factor loadings shown in table 6.12, are above the suggested cut-off level of 0.5. This shows that the items are valid. Cronbach's Alpha values of 0.8 or more show that the construct's factors are reliable. The Composite Reliability, which is greater than 0.8, shows that all constructs have strong internal consistency reliability. AVE readings go above the proposed cut-off of less than 0.5. So, it is likely that there will be a lot of convergence. All the requirements have been met, so the data is ready to be analysed and used to make models.

**Table 6.12****Final Reliability and Validity of CFA Model of Factors of Overall Well-being**

<b>Factors of overall well-being</b>	<b>Item code</b>	<b>Factor loading</b>	<b>Cronbach's Alpha Final</b>	<b>AVE</b>	<b>Composite Reliability</b>
<b>Individual well-being (IDW)</b>	IDW 7**	0.62	0.83	0.57	0.84
	IDW 8**	0.86			
	IDW 9**	0.76			
	IDW 10**	0.74			
<b>Social well-being (SOW)</b>	SOW 3**	0.59	0.77	0.53	0.77
	SOW 4**	0.91			
	SOW 5**	0.65			
<b>Family well-being (FMW)</b>	FMW 1**	0.55	0.78	0.57	0.79
	FMW 2**	0.89			
	FMW 3**	0.78			

Source: Computed from Primary Data

\*\* denotes significant at 1% level

Having established the reliability of CFA of overall well-being, the next is to calculate the discriminant validity among the factors of overall well-being, Such as individual well-being, social well-being, and family well-being. It is necessary to ensure that the factors constituting the overall well-being do not overlap too much and they truly capture unique aspects of the constructs they represent.

**Table 6.13****Discriminant Validity among the Factors of Overall Well-being**

<b>Constructs</b>	<b>IDW</b>	<b>SOW</b>	<b>FMW</b>
<b>IDW</b>	<b>(0.75)</b>		
<b>SOW</b>	0.21	<b>(0.73)</b>	
<b>FMW</b>	0.42	0.17	<b>(0.75)</b>

Source: Primary Data



Numbers in parentheses reflect the square root of the AVE scores, which must be greater than the values of the latent variable correlation in order to prove that there is no link between the various constructs. Thus, it can be inferred from table 6.13, that there is no association between the constructs of overall well-being and not overly correlated.

### **6.4.3 Co-variance Based Structural Equation Modelling Techniques**

Structural equation modelling (SEM) is a sort of statistical analysis that examines how various structures interact with one another. It combines multiple regression and factor analysis. Many researchers appreciated this strategy since it could determine how many variables were interdependent in a single analysis. This study frequently employs both endogenous (dependent variables) and exogenous factors (independent variable). Covariance-Based Structural Equation Modelling is a technique for testing hypotheses and analysing a phenomenon's structural theory. The IBM SPSS AMOS Graphics 21 software package was utilised to perform the CB-CFA and SEM in this investigation.

This section discusses the process of developing a Structural Equation Model (SEM) for the senior citizens in the rural areas in Kerala. The SEM demonstrates the connection between the productive engagements of senior citizens in rural areas of Kerala on their overall well-being using productive behaviour as a moderating factor. Thus, the effects of productive engagement on overall well-being must be analysed separately for the care-giving senior citizens and the working senior citizens. The moderation model also analyses effects of social factors, economic factors and public policy and programmes separately on individual well-being, family well-being, and social well-being. Considering this, the following moderating effect hypotheses will be explored extensively.

#### **Moderating Effect Hypothesis 1**

H: Social factors have a positive effect on family well-being and productive behaviour  
moderate this relationship

#### **Moderating Effect Hypothesis 2**

H: Economic factors have a positive effect on family well-being and productive behaviour  
moderate this relationship

#### **Moderating Effect Hypothesis 3**

H: Public policy and programmes have a positive effect on family well-being and productive behaviour moderate this relationship

**Moderating Effect Hypothesis 4**

H: Social factors have a positive effect on individual well-being and productive behaviour moderate this relationship

**Moderating Effect Hypothesis 5**

H: Economic factors have a positive effect on individual well-being and productive behaviour moderate this relationship

**Moderating Effect Hypothesis 6**

H: Public policy and programmes have a positive effect on individual well-being and productive behaviour moderates this relationship

**Moderating Effect Hypothesis 7**

H: Social factors have a positive effect on social well-being and productive behaviour moderate this relationship

**Moderating Effect Hypothesis 8**

H: Economic factors have a positive effect on social well-being and productive behaviour moderate this relationship

**Moderating Effect Hypothesis 9**

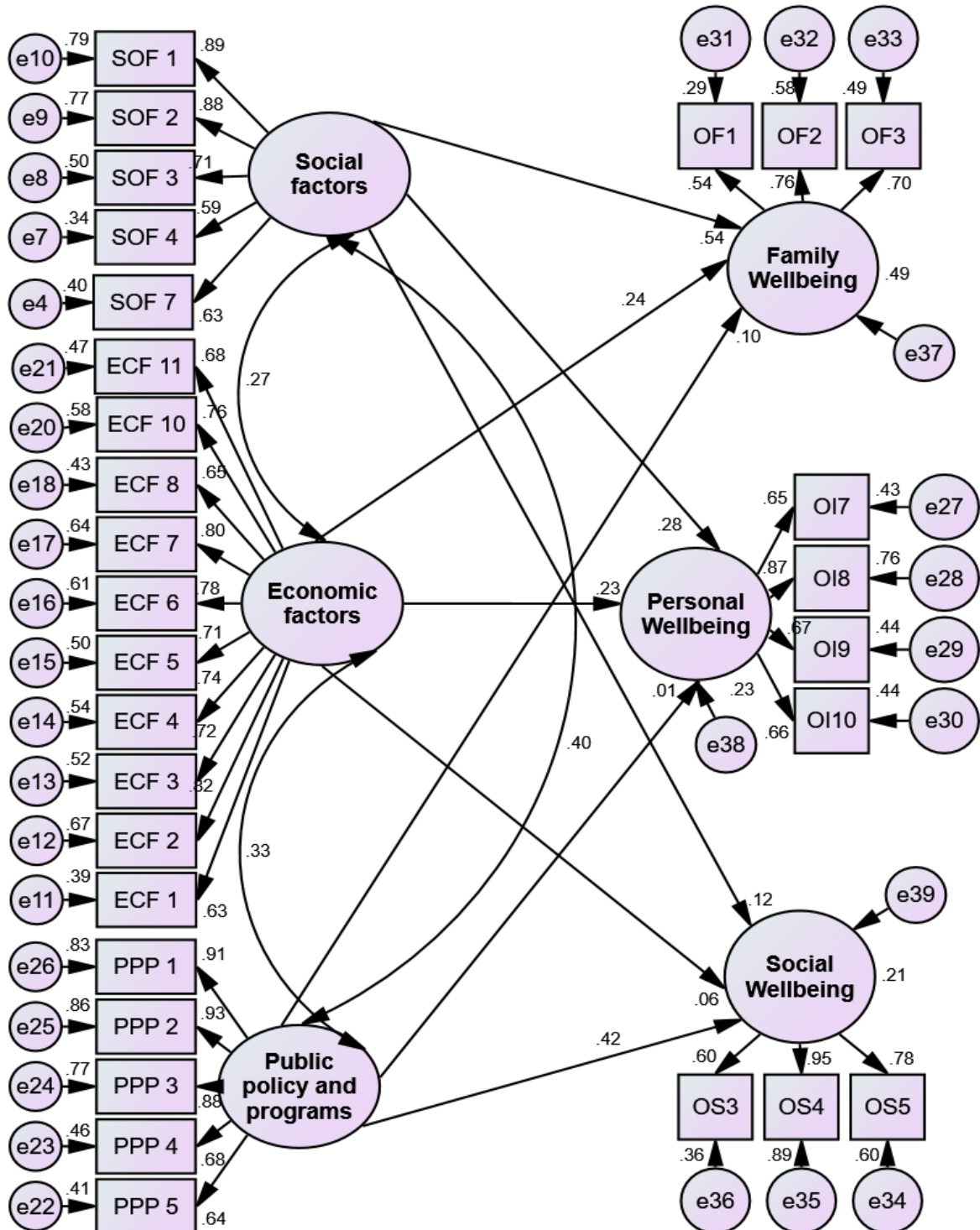
H: Public policy and programmes have a positive effect on social well-being and productive behaviour moderate this relationship

Having articulated the moderating effect hypothesis, the next step is to test the hypothesis. SEM provides a framework for testing the moderating effect hypothesis and examines the effect of social factors, economic factors and public policy and programmes on individual well-being, family well-being and social well-being differ across different levels of the moderator. In the present model, there are two moderators i.e., care-giving senior citizens and working senior citizens. Thus, the conceptual model was tested in the following ways:

1. Testing of the model of the effects of productive engagement on overall well-being of the care-giving senior citizens in the rural areas (figure 6.4)
2. Testing of the model of the effects of productive engagement on overall well-being of the working senior citizens in the rural areas (figure 6.5)

Figure 6.4

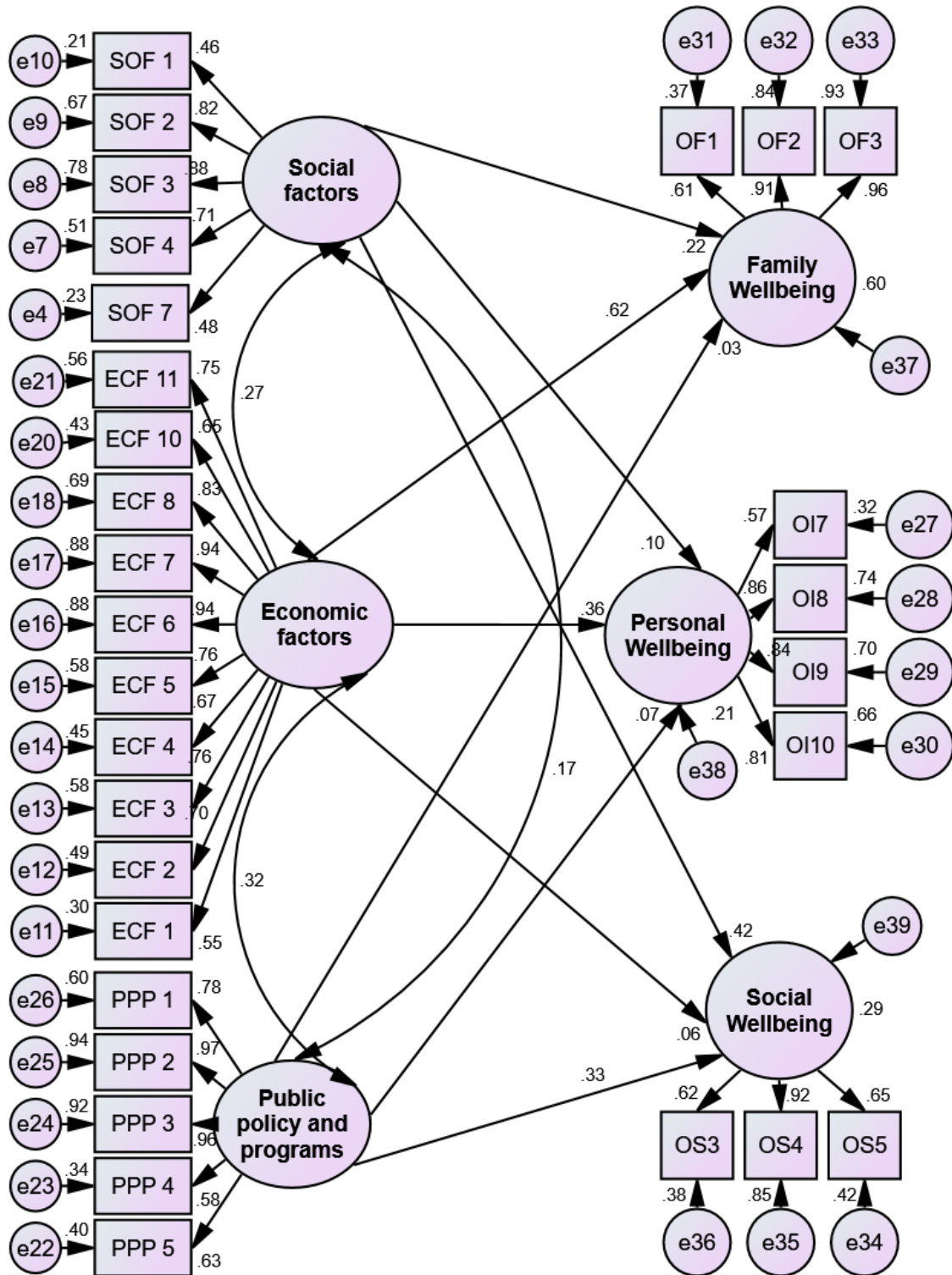
Tested Model for the Effects of Productive Engagement on Overall Well-being of the Care-giving Senior Citizens in the Rural Areas



Source: Primary Data

Figure 6.5

Tested Model for the Effects of Productive Engagement on Overall Well-being of the Working Senior Citizens in the Rural Areas



Source: Primary Data

**Table 6.15**

**Model Fit Indices of the Multi-Group Analysis (MGA) Model for the Working and Care-giving Categories of the Senior Citizens in the Rural Areas in Kerala**

<b>MODEL</b>	<b>CMIN/DF</b>	<b>P-VALUE</b>	<b>GFI</b>	<b>AGFI</b>	<b>CFI</b>	<b>RMSEA</b>
Study model	4.841	0.000	0.921	0.901	0.958	0.059
Recommended value	Acceptable fit [1-5]	Greater than 0.05	Greater than 0.9	Greater than 0.9	Greater than 0.9	Less than 0.08

The Chi-square to degrees of freedom ratio of a model must be smaller than five. In this case, 4.841 is within the maximum allowable range. The RMSEA is 0.059, which is less than the threshold of 0.08. GFI, AGFI, and CFI are all more than 0.9, with 1.0 being an exact match. So, SEM is good.

**6.4.4 Path Analysis of SEM for Care-giving Category of the Senior Citizens in the Rural Areas of Kerala.**

The test results show that all paths included in the caregiver model is supported except the hypotheses that public policy and programmes have a positive effect on individual well-being and Economic factors have a positive effect on social well-being. The hypothesis that social factors have a positive effect on family well-being having the higher path value and the hypothesis, public policy and programmes have a positive effect on individual well-being having the lower path value in this model. The test results of the hypothesis of SEM for the care-giving senior citizens were given in table 6.16.

**Table 6.16**  
**Values of Path Analysis and R<sup>2</sup> for the Care-giving Senior Citizens in the Rural Areas of Kerala**

Constructs path index			Standardized co-efficient (Beta)	R <sup>2</sup> Value	Critical Ratio	P value
Family Well-being	←	Social Factors	0.54	0.49	8.65	<0.001**
Family Well-being	←	Economic Factors	0.24		4.07	<0.001**
Family Well-being	←	Public policy and programmes	0.10		2.91	<0.001**
Individual Well-being	←	Social Factors	0.28	0.23	4.25	<0.001**
Individual Well-being	←	Economic Factors	0.23		4.01	<0.001**
Individual Well-being	←	Public policy and programmes	0.01		0.895	0.954 <sup>NS</sup>
Social Well-being	←	Social Factors	0.12	0.21	2.94	<0.001**
Social Well-being	←	Economic Factors	0.06		0.254	0.564 <sup>NS</sup>
Social Well-being	←	Public policy and programmes	0.42		7.02	<0.001**

Source: Primary Data

\*\* indicates significant at 1% level

For the senior citizens, who are engaged in care-giving activities, the outcome of their productive engagement on family was sounder than the outcome on the senior citizens themselves. For the care-giving senior citizens, social factors have more influence on family

well-being than the individual well-being and least influence on social well-being. The effect of economic factors was strong on family well-being than the individual well-being. The public policy and programmes directly affect the social well-being, followed by family well-being and personal well-being. Thus, it can be concluded from the analysis that for the senior citizens who are engaged in care-giving activities, their productive engagement creates a positive effect on their family well-being than their individual well-being. The results of the hypothesis testing of care-giver model was explained in detail.

### **Structural Model Hypothesis 1**

H: Social factors have a positive effect on family well-being

Since the P value was less than 0.001, which is significant, the hypothesis “social factors have a positive effect on family well-being” was accepted. The various social influences of productive engagement contribute positively on the family well-being of the care-giving senior citizens in the rural areas of Kerala.

### **Structural Model Hypothesis 2**

H: Economic factors have a positive effect on family well-being

The P value for path analysis of the effects of economic factors on family well-being was less than 0.001, is significant. Thus, the hypothesis “economic factors have a positive effect on family well-being” was accepted. It can be conjectured from the analysis that the economic factors of care-giving activities create a positive effect on the well-being of the family.

### **Structural Model Hypothesis 3**

H: Public policy and programmes have a positive effect on family well-being

The P-value for the effect of public policy and programmes on family well-being was less than 0.001, then the hypothesis “public policy and programmes have a positive effect on family well-being” was accepted. It implies that various government policies and programmes create a positive effect on the well-being of the care-giving senior citizen’s family.

### **Structural Model Hypothesis 4**

H: Social factors have a positive effect on individual well-being

The P value of the path analysis of the effects of social factors on individual well-being was less than 0.001, which is significant, then the hypothesis “social factors have a positive effect on individual well-being” was accepted. Thus, the model presumes that the social factors of productive engagement have a positive effect on the well-being of the senior citizens themselves.

### **Structural Model Hypothesis 5**

H: Economic factors have a positive effect on individual well-being

The P-value for the effect of economic factors on individual well-being was less than 0.001, then the hypothesis “economic factors have a positive effect on individual well-being” was accepted. Thus, it can be inferred from the analysis that the economic factors which influences the care-giving productive behaviour of the senior citizens create a positive effect on the care-giver’s personal well-being.

### **Structural Model Hypothesis 6**

H: Public policy and programmes have a positive effect on individual well-being

Since, the P value is 0.954 which is insignificant, the hypothesis “public policy and programmes have a positive effect on individual well-being” was rejected. It can be concluded from the analysis that the public policy and programmes have not create any positive effect on the personal well-being of the senior citizens themselves.

### **Structural Model Hypothesis 7**

H: Social factors have a positive effect on social well-being

The P value of path analysis of the effect of social factors on social well-being was less than 0.001, which is significant. Thus, the hypothesis “social factors have a positive effect on social well-being” was accepted. It was inferred from the analysis that the social factors of productive engagement of the care-giving senior citizens create a positive effect on social well-being.

### **Structural Model Hypothesis 8**

H: Economic factors have a positive effect on social well-being

Since, the P value was 0.564 which is insignificant, the hypothesis “economic factors have a positive effect on social well-being” was rejected. From, the analysis it can be concluded that in the case of care-giving senior citizens, the economic factors of productive engagement do not create any effect on social well-being.

### **Structural Model Hypothesis 9**

H: Public policy and programmes have a positive effect on social well-being

The P value for the effect of public policy and programmes on social well-being was less than 0.001 and it is significant. Thus, the hypothesis “public policy and programmes have a positive effect on social well-being” was accepted. It can be concluded from the analysis that the government policies and programmes contribute positively on the social well-being.



In SEM, it is necessary to calculate coefficient of determination ( $R^2$ ) is used to measure the proportion of variance explained by latent variables and their relationships. The  $R^2$  values help to assess the relative contribution of different latent variables to the variance in observed variable and to understand which part of the model are contributing most to the outcome of interest. The  $R^2$  for family well-being is 0.49. This value implies that 49 per cent of variation is explained by the social factor, economic factor and public policy and programmes factors. This value leads to the conclusion that other independent factors are necessary for predicting the balance 51 per cent variation in family well-being factor. In the similar way, the  $R^2$  value of individual well-being is 23 per cent and social well-being is 21 per cent. Family well-being is the highest predicting dependent factor in this model followed by personal well-being and social well-being.

After path analysis of SEM for the care-giving senior citizens, the next is the path analysis of SEM for the working senior citizens in the rural areas of Kerala.

#### **6.4.5 Path Analysis of SEM for Working Category of the Senior Citizens in the Rural Areas of Kerala**

Test results show that seven paths of the hypotheses included in the care-giving model are supported, while four hypotheses are not supported in this model: Public policy and programmes have a positive effect on family well-being, social factors have a positive effect on individual well-being, public policy and programmes have a positive effect on individual well-being, and economic factors have a positive effect on social well-being. In this model, the hypothesis that economic factors have a good influence on family well-being has a greater path value and the hypothesis that social factors have a positive effect on family well-being, which has a lower path value in this model.

For the senior citizens who are workers, the economic factors have more influence on family well-being than the influence of the social factors. The individual well-being of the working senior citizens was highly contributed by the economic factors of productive engagement and the least contributed by the public policy and programmes. The social factor creates greater effect on the social well-being and the least effect was by the economic factors. In a nutshell, the economic factors indeed have a significant impact on the personal and the family well-being of the working senior citizens in the rural areas of Kerala. Thus, for the senior citizens who are continue to work in their autumn years, can enjoy better personal and family well-being than their counter parts.

**Table 6.18****Values of Path Analysis and R<sup>2</sup> for the Working Senior Citizens in the Rural Areas of Kerala**

Constructs path index			Standardized co-efficient (Beta)	R <sup>2</sup> Value	Critical Ratio	P value
Family Well-being	←	Social Factors	0.22	0.60	4.25	<0.001**
Family Well-being	←	Economic Factors	0.62		9.35	<0.001**
Family Well-being	←	Public Policy and Programmes	0.03		1.08	0.387 <sup>NS</sup>
Individual Well-being	←	Social Factors	0.10	0.21	1.84	0.099 <sup>NS</sup>
Individual Well-being	←	Economic Factors	0.36		7.05	<0.001**
Individual Well-being	←	Public Policy and Programmes	0.07		1.24	0.127 <sup>NS</sup>
Social Well-being	←	Social Factors	0.42	0.29	8.65	<0.001**
Social Well-being	←	Economic Factors	0.06		0.99	0.129 <sup>NS</sup>
Social Well-being	←	Public Policy and Programmes	0.33		6.54	<0.001**

Source: Primary Data

\*\* indicates significant P value at 1% level

Having explained the path values of the effect of social factors, economic factors and public policy and programmes on individual well-being, family well-being and social well-

being for the working senior citizens, next is to explain the results of the hypothesis testing of the working senior citizens' model.

### **Structural Model Hypothesis 1**

H: Social factors have a positive effect on family well-being

The P value in the path analysis of the effect of social factors on family well-being was less than 0.001 and it is significant. Thus, the hypothesis "social factors have a positive effect on family well-being" was accepted. It implies that the social factors of productive engagement influence positively on the family well-being of the working senior citizens in the rural areas of Kerala.

### **Structural Model Hypothesis 2**

H: Economic factors have a positive effect on family well-being

For the working senior citizens, P value of the positive effect of economic factors on family well-being was less than 0.001. Hence, the hypothesis "economic factors have a positive effect on family well-being" was accepted and concluded that the economic factors of the productive engagement of the working senior citizens contribute positively for their family well-being.

### **Structural Model Hypothesis 3**

H: Public policy and programmes have a positive effect on family well-being

Since the P value for the effect of public policy and programmes on family well-being was 0.387, which is insignificant. Therefore, the hypothesis "public policy and programmes have a positive effect on family well-being" was rejected and the null hypothesis "Public policy and programmes do not have positive effect on family well-being" was accepted. It can be presumed from the analysis that the public policy and programmes do not have any role in the family well-being of the care-giving senior citizens.

### **Structural Model Hypothesis 4**

H: Social factors have a positive effect on individual well-being

Since, the P value was 0.099, the hypothesis "social factors have a positive effect on individual well-being" was rejected and the null hypothesis "social factors do not have positive effect on individual well-being" was accepted. It implies that the social factors do not create any effect on the personal well-being of the working senior citizens.

### **Structural Model Hypothesis 5**

H: Economic factors have a positive effect on individual well-being

The P value of the path analysis of the effect of economic factors on individual well-being was less than 0.001 which is significant, hence the hypothesis "economic factors have a

positive effect on individual well-being” was accepted. Thus, it can be inferred from the analysis that the economic factors of productive engagement significantly contribute to the personal well-being of the working senior citizens.

### **Structural Model Hypothesis 6**

H: Public policy and programmes have a positive effect on individual well-being

Since, the P value of the effect of public policy and programmes on individual well-being was 0.127 which is insignificant, hence the hypothesis “public policy and programmes have a positive effect on individual well-being” was rejected. Therefore, the null hypothesis “public policy and programmes do not have positive effect on individual well-being” was accepted. It implies that the government policy and programmes do not create any influence on the personal well-being of the working senior citizens in the rural areas of Kerala.

### **Structural Model Hypothesis 7**

H: Social factors have a positive effect on social well-being

The P value of the effect of social factors on social well-being was less than 0.001 thus, the hypothesis “social factors have a positive effect on social well-being” was accepted. It points out that the social factors significantly contribute for the social well-being.

### **Structural Model Hypothesis 8**

H: Economic factors have a positive effect on social well-being

Since, the P value was 0.129 which is insignificant, therefore the hypothesis “economic factors have a positive effect on social well-being” was rejected and the null hypothesis “economic factors do not have positive effect on social well-being” was accepted. It can be concluded that the economic factors do not create any effect on the social well-being.

### **Structural Model Hypothesis 9**

H: Public policy and programmes have a positive effect on social well-being

The P value for the effect of public policy and programmes on social well-being was less than 0.001 and it is significant. Thus, the hypothesis “public policy and programmes have a positive effect on social well-being” was accepted and it was pointed out that the government policy and programmes create a significant positive effect on social well-being.

After discussing the results of the hypothesis testing, next is to discuss the  $R^2$  in the working category model of senior citizens in the rural areas of Kerala. In the working senior citizen’s model, the coefficient of determination for family well-being is 0.60. This value implies that 60 per cent of variation is explained by the social factors, economic factors and public policy and programmes. This value leads to the conclusion that other independent factors are necessary for predicting 40 per cent variation in family well-being factor. In the

similar way, the R<sup>2</sup> value of individual well-being is 21 per cent and social well-being is 29 per cent. Family well-being is the highest predicting dependent factors in this model followed by social well-being and individual well-being.

#### **6.4.6 Testing the Significance of Multi-Group Moderation Analysis at Model Level Using Chi-Square Difference Test**

Testing the significance of multi-group moderation at the model level using a chi-square difference test involves comparing the fit of two or more nested structural equation models to determine, if the moderation effect significantly varies across different groups. The chi-square difference test also known as the chi-square test of model fit, is a statistical test used to compare the fit of two or more models in SEM. This test assesses whether there is a significant difference in the fit between the models, which can indicate whether certain constraints or modifications in the model are warranted.

**Table 6.20**

**Chi-square Difference Test for Assessing the Significance of Multi-Group Moderation Analysis at Model Level**

<b>Overall Model</b>	<b>Chi-square</b>	<b>df</b>	<b>p-value</b>	<b>Invariant?</b>
Unconstrained	1685.25	325		
Fully constrained	1865.24	328		
Number of groups		2		
<b>Difference</b>	<b>76.65</b>	<b>3</b>	<b>0.000</b>	<b>No</b>

Source: Primary Data

The Chi-square difference test clearly demonstrated that there is a substantial difference between the unconstrained and fully constraint models under Multi-Group Analysis (P value is 0.01). It demonstrates that groups differ at the model level. It contributes to the model's moderating effects. In addition to the chi-square difference test, the study looked at the key ratios for difference tests in the model for determining the moderating influence on the path values. It is mentioned below.

#### **6.4.7 Critical Ratios for Differences Tests for Measuring the Significance of the Moderating Effect in Path Values**

It is very important to examine the significance of the moderation effects in terms of significant differences among the path values between the working senior citizens and the care-giving senior citizens of the rural areas in Kerala. In order to assess it, critical ratios for differences tests were performed. The following table shows the results of critical ratios for differences tests. The null hypothesis for testing the moderation effects in the path values between these two categories are given below.

##### **Critical Ratio Hypothesis**

H: There are significant differences between the working and the care-giving senior citizens in estimates of productive engagement on overall well-being.

In the moderation testing in the productive engagement on overall well-being model using critical ratios for differences method, based on the critical ratios six hypotheses are supported and the other three hypothesis such as public policy and programmes has a positive effect on family well-being and productive behaviour moderate this relationship, public policy and programmes has a positive effect on individual well-being and productive behaviour moderate this relationship and Economic factor has a positive effect on social wellbeing and productive behaviour moderate this relationship are not supported in the test. It means that there is no significant difference between the care-giving senior citizens and the working senior citizens in the effect of public, policy and programmes on family well-being and on individual well-being and the effect of economic factors on social well-being.

It can be concluded from the analysis that there are differences between the working senior citizens and the care-giving senior citizens in the effects of social factors on family well-being, individual well-being, and social well-being. The influence of economic factors on family well-being and individual well-being was different among the working and the care-giving senior citizens. The effect of public policy and programmes on social well-being was also distinct among the among the working and the care-giving senior citizens.

**Table 6.21****Moderation Testing in the Productive Engagement on Overall Well-being Model Using Critical Ratios for Differences Method**

Constructs path index			Critical Ratios for Differences between Parameters
Family Well-being	←	Social Factors	7.25**
Family Well-being	←	Economic Factors	8.21**
Family Well-being	←	Public Policy and Programmes	0.099 <sup>NS</sup>
Individual Well-being	←	Social Factors	4.01**
Individual Well-being	←	Economic Factors	3.25**
Individual Well-being	←	Public Policy and Programmes	1.42 <sup>NS</sup>
Social Well-being	←	Social Factors	6.51**
Social Well-being	←	Economic Factors	0.000 <sup>NS</sup>
Social Well-being	←	Public Policy and Programmes	3.14**

Source: Primary Data

\*\*denotes significant (Moderating effects); NS indicates Not Significant (No moderating effect). (Decision criteria: - If the critical ratios for differences are between -1.96 to +1.96 accept the null hypothesis. Else, reject null hypothesis).

After the moderation testing of the hypothesis, it is necessary to discuss each moderation hypothesis in detail by explaining the moderation effects between the care-giving senior citizens and the working senior citizens.

**Moderation Effect Hypothesis 1**

H: Social factors have a positive effect on family well-being and the productive behaviour moderates this relationship

The critical ratio between the social factors and family well-being was 7.25 and it is found significant. Hence, the hypothesis “social factors have a positive effect on family well-being and the productive behaviour moderates this relationship” was accepted. It can be

concluded from the analysis that there is a moderation effect between the care-giving senior citizens and the working senior citizens in the relationship between the social factors and family well-being and in the present study, the moderating effect is higher for the care-giving senior citizens than the working senior citizens, implying that the social factors affect positively on the family well-being of the care-giving senior citizens than the working senior citizens. It is a proven fact the care-giving senior citizens give more importance to family well-being than their personal well-being.

### **Moderation Effect Hypothesis 2**

H: Economic factors have a positive effect on family well-being and productive behaviour moderates this relationship

Since, critical ratio 8.21 was significant, the hypothesis “economic factors have a positive effect on family well-being and productive behaviour moderates this relationship” was accepted. It implies that there is a moderation effect between the care-giving senior citizens and the working senior citizens in the relationship between the economic factors and family well-being. This moderating effect is higher for the working senior citizens than the care-giving senior citizens because the working senior citizens enjoy more economic advantage than the care-giving senior citizens. The working senior citizens can take care of their family, they can assist in the household affairs and can assist in household affairs than the care-giving senior citizens.

### **Moderation Effect Hypothesis 3**

H: Public policy and programmes have a positive effect on family well-being and productive behaviour moderates this relationship

The critical ratio between the public policy and programmes and well-being was 0.099 which is insignificant therefore, the hypothesis “public policy and programmes have a positive effect on family well-being and productive behaviour moderate this relationship” was rejected and the null hypothesis “public policy and programmes have a positive effect on family well-being and productive behaviour does not moderate this relationship” was accepted. Thus, it can be inferred from the analysis that there was no moderation effect between the care-giving senior citizens and working senior citizens in the relationship between public policy and programmes and family well-being.

### **Moderation Effect Hypothesis 4**

H: Social factors have a positive effect on individual well-being and productive behaviour moderate this relationship



In the analysis of the moderation effect between the care-giving senior citizens and the working senior citizens on the effect of social factors on individual well-being, the significant critical ratio was 4.01 and it was identified that the hypothesis “social factors have a positive effect on individual well-being and productive behaviour moderate this relationship” was accepted. It implies that there exists a difference between the care-giving senior citizens and the working senior citizens on the effect of social factors on individual well-being and it also finds out that the moderating effect is higher for the care-giving senior citizens than the working senior citizens. The social factors create a positive effect on the personal well-being of the care-giving senior citizens than that of the working senior citizens because being engaged in care-giving, which does not demand much physical strength, helps them to gain more happiness and satisfaction and to stay active and healthy.

### **Moderation Effect Hypothesis 5**

H: Economic factors have a positive effect on individual well-being and productive behaviour moderate this relationship

The critical ratio in the moderation effect between the care-giving senior citizens and the working senior citizens was 3.25 which is significant and hence the hypothesis “economic factors have a positive effect on individual well-being and productive behaviour moderate this relationship” was accepted. It can be conjectured from the analysis that there exist significant differences between the care-giving senior citizens and the working senior citizens in the effect of economic factors on individual well-being and this moderation effect was higher for the working senior citizens than the care-giving senior citizens. Since, the effect of social factors on individual well-being was higher for the care-giving senior citizens, the effect of economic factors on individual well-being was higher for the working senior citizens. The social factors help to stay active and healthy and also help to gain happiness and satisfaction. However, the economic factors create an outcome on individual beyond the effects of social factors as the working senior citizens can meet their own expenses.

### **Moderation Effect Hypothesis 6**

H: Public policy and programmes have a positive effect on individual well-being and productive behaviour moderates this relationship

Since, the critical ratio was 1.42, which was insignificant, the hypothesis “public policy and programmes have a positive effect on individual well-being and productive behaviour moderates this relationship” was rejected and the null hypothesis “public policy and programmes have a positive effect on individual well-being and productive behaviour does not moderate this relationship” was accepted. It implicates that there were no significant

differences between the care-giving senior citizens and the working senior citizens in the effect of public policy and programmes on individual well-being.

#### **Moderation Effect Hypothesis 7**

H: Social factors have a positive effect on social well-being and productive behaviour moderate this relationship

The critical ratio between the care-giving senior citizens and the working senior citizens in the relationship between the social factors and social well-being was 6.51 and it is significant. Thus, the hypothesis “social factors have a positive effect on social well-being and productive behaviour moderate this relationship” was accepted. It was inferred from the analysis that there exist significant differences between the care-giving senior citizens and the working senior citizens in the effect of social factors on social well-being and this moderation effect was higher for the working senior citizens. It is because the working senior citizens contributes more to the society and their experience and skill were an asset for the society.

#### **Moderation Effect Hypothesis 8**

H: Economic factors have a positive effect on social well-being and productive behaviour moderate this relationship

Since, the critical ratio between the care-giving senior citizens and the working senior citizens in the relationship between economic factors and social well-being was 0.000, which was insignificant, implies that the hypothesis “economic factors have a positive effect on social well-being and productive behaviour moderate this relationship” was rejected and the null hypothesis “economic factors have a positive effect on social well-being and productive behaviour does not moderate this relationship” was accepted. Thus, it was presumed from the analysis that there is no difference between the care-giving senior citizens and the working senior citizens in the relationship between economic factors and social well-being

#### **Moderation Effect Hypothesis 9**

H: Public policy and programmes have a positive effect on social well-being and productive behaviour moderate this relationship

The critical ratio between the care-giving senior citizens and the working senior citizens in the relationship between public policy and programmes and the social well-being was 3.14 and it was significant. Thus, the hypothesis “public policy and programmes have a positive effect on social well-being and productive behaviour moderate this relationship” was accepted. It was inferred from the analysis that there exist significant differences between the between the care-giving senior citizens and the working senior citizens in the effect of public policy and programmes on social being and this effect was higher for the care-giving senior citizens.

The Productive Engagement of Senior Citizens in Later life Model is to extract the effect of factors affecting productive engagement of the senior citizens in rural areas of Kerala on their overall well-being using productive behaviour as a moderating factor was analysed. The fit indices of the both CFA and SEM are found to be good fit. Statistical test results indicates that there is a moderation effect of productive behaviour in the relationship between productive engagement of the senior citizens in the rural areas of Kerala on their overall well-being. For both care-giving and working senior citizens, the productive engagement results in individual well-being, family well-being, and social well-being. However, the model concludes by stating that the working senior citizens in the rural areas of Kerala enjoy more economic advantage and personal well-being than the care-giving senior citizens in the rural areas of Kerala.

As the societies and communities around the world undergo tremendous demographic shifts, the need of productive engagement and role of well-being of the senior citizens are gaining increased attention. The productive engagement and its outcome on the individuals, families and on society is becoming the periphery of the discussions on ageing. Engaging in productive activities create a sense of purpose, belonging and accomplishment among the senior citizens. Thus, engaging in productive activities, particularly in income generating activities, is imperative in the lives of the senior citizens that promote the well-being of the senior citizens at the multiple level. By providing opportunities and accepting the challenges of the aging population, promoting productive engagement of the senior citizens will be an investment that reaps increased contribution to the human capital of the economy in the form of healthy, happier, skilled, and experienced productive asset.

## **6.5 Summary of the Chapter**

The chapter investigated the ownership of fixed assets and household items, analysed the health status and the awareness of the senior citizens about various welfare measures undertaken for them and fitted the Productive Engagement in Later Life Model. This chapter predominantly addressed the third objective, which was to find out the determinants and outcomes of productive engagement of the senior citizens in the rural areas of Kerala. The objective in particular explored the effect of the productive engagement of the senior citizens on their overall well-being using productive behaviour as a moderating factor. According to the findings of the moderation test that there is a moderation effect of productive behaviour in the relationship between the factors affecting productive engagement of the senior citizens and the overall well-being of the senior citizens in the rural areas of Kerala. The result of the study

indicates that there are significant differences between the working and the care-giving senior citizens in estimates of productive engagement on overall well-being. The overall well-being, especially the personal well-being, was better among the working senior citizens than the care-giving senior citizens. Even though the existence of discouraging factors of productive engagement was very low among the senior citizens in rural areas of Kerala, the government and the institutions should take necessary steps towards the minimisation of influencing factors of productive engagement of the senior citizens, which pose a negative impact on the overall well-being of the senior citizens in rural areas of Kerala.

## **Chapter 7**

### **Major Findings, Recommendations and Conclusion**

## 7.1 Introduction

Families, friends, teachers, cultural figures, social media, and elected officials should all work together to encourage the senior citizens to adopt the idea of the productive ageing as a behavioural guide. By fusing their extensive dedication with the contemporary principle of interdependence, a shift is required to have good ageing. This pragmatic perspective helps the senior citizens to understand that the care given to them while they are frail is never an indication of failure but rather a mutually beneficial exchange with an ageing cohort that is committed to contributing to society as long as feasible. Young people should be taught to accept the senior citizens as the finest experts due to their generational experiences. Therefore, communication is required to get to know them and enable them to accomplish a happy autumn life. Every age group needs to become aware of and responsive to the top priorities, issues, and concerns of five generations in order to succeed during the lifetime. Lifelong learning should aim to enhance everyone's economic independence to foster reciprocal empathy, spur collaborative effort, and create pleasant relationships between different age groups (Strom, 2020).

In the present research work with the help of the primary survey, it was identified that 45.3 per cent of the senior citizens and their families work as farm labourers and take part in cultivation. The senior citizens in the rural areas knew how important it was to make money for themselves and their families. The senior citizens accentuated that staying at home and doing nothing makes them unwell and uneasy. Majority of the senior citizens productively involve in the society due to the loving atmosphere in the family which permitted them to earn an income for themselves and for their family. Senior citizens believe that if they perform various types of work and assume responsibilities like care-givers, decision-makers, mobile roles, socialise with the members of the family, and provide for their physical needs such as food, housing, and security, that will help them gain social recognition and identification. This optimism of receiving social recognition encouraged them to take on new responsibilities in the family and in the society. Seniors do not want to be seen them as passive recipients of care, services, and benefits by others. This acceptance by society also makes it difficult for the senior citizens to participate fully in family life and allows them to fill important and varied responsibilities (Ayoob, 2020). A sizeable proportion of the population have independent access to economic institutions and decision-making roles. The economic services, welfare programmes, and policies devised for the well-being of the senior citizens are not sufficiently

known to the senior citizens. Senior citizens who are economically independent are those who have better economic knowledge, independent access to economic institutions, significant decision-making roles, and organised sources for economic socialisation. These seniors are likely to have better employment opportunities and higher incomes (Lesthaeghe, 2001). The study provides sufficient data to draw the overall conclusion that working rather than providing care for others benefits senior citizens. The main result of providing care is contentment. The well-being of the senior citizens who are involved in care-giving activities is improved by their involvement in various roles, which entails integrating employment with caregiving roles. To cater this broad and ever-growing group of senior citizens, an entirely new strategy of action is required (Morrow-Howell, 2000).

It is vital to highlight the key findings of the study after analysing the senior citizen's involvement in economic activities, constructs of economic independence, their assets and well-being, and the fitting of the models. Therefore, the significant findings of the study are presented in this chapter along with the contribution of the researcher, areas of further research, policy implications, and conclusion.

## **7.2 Major Findings of the Study**

The present research work made an in-depth analysis on the productive engagement of the senior citizens living in the rural areas of Kerala. Three objectives were set forth for the study and they are presented here.

1. To study the involvement of the senior citizens in the economic activities in the rural areas of Kerala
2. To sketch the aspects of the economic independence and encouragement for the productive engagement of the senior citizens.
3. To analyse the determinants and outcomes of the productive engagement of the senior citizens in the rural areas of Kerala

### **7.2.1 Involvement of the Senior Citizens in Economic Activities and Trend of the Growth of Aged Population in Kerala**

- ❖ Since 1961, there has been an increase in the population of the senior citizens in Kerala. The senior citizens made up 5.13 per cent of the population of Kerala during the year 1961. According to the Census of 1981, the senior citizens made up 7.44 per cent of the total population, which is an increase from 6.18 per cent in 1971. In the years 1991, 2001, and 2011, the proportion of the population of the senior citizens to the total population of Kerala was 8.82 per cent, 10.48 per cent, and 12.55 per cent, respectively.

According to the trend line of the population, the population of the senior citizens will continue to grow in proportion to the overall population of Kerala and is expected to account for 14.29 per cent of the population by the year 2061.

- ❖ Ernakulam District is home for 4,50,794 senior citizens, which is the district with highest senior population in Kerala. The districts of Thiruvananthapuram and Thrissur follow the district of Ernakulam, in the case of having highest number of the senior citizens with 4,29,431 and 4,28,595 respectively. In the district of Wayanad, the senior citizen's population is the least prevalent one. It is the only district with lesser than 1,00,000 elderly people.
- ❖ In the case of the senior citizens in the age group of 60-69, the district of Thiruvananthapuram had the largest concentration with 2,56,424 young senior citizens, followed by the districts of Ernakulam and Thrissur having the population of young senior citizens 2,56,424 and 4,28,595 respectively. The least number of young senior citizens (47,352) lives in the district of Wayanad, which is the youngest of the three districts based on its formation.
- ❖ The percentage increase of the working population in the census year 2011 from the census year 1961 was 143.47 per cent. The percentage increase of old age population in 2011 from 1961 was 383.58 per cent, which means that the old age population grew, two times faster than that of the working population in Kerala. Though the working population of Kerala is increasing the pace of growth is low.
- ❖ During the census year 2011, the proportion of working population to total population was 63.9 per cent which is an increase from 63.39 per cent in 2001. In 1991 census the proportion was 61.22 per cent. Thus, for the last three decades the working population occupied a stable proportion and can expect a decline in the proportion, because of the declining fertility and growing elderly population. The addition made by the age-group 0-14 to the working population was less than the addition made by the working population to the old age population.
- ❖ In the Census year 1991, the population in the age group of 0-14 was 86,47,636 and was again declined to 82,96,545 in 2001. During the census year 2011, the population in the age group of 0-14 reached to 78,30,974. From 1991 onwards, the child population in Kerala registered a negative growth rate. Decline in the population between the age group of 0-14 is an outcome of Kerala's social and human development. Kerala has a reduced birth rate and mortality rate because of the high quality of the health services and providing education to women.



- ❖ The estimations made from the census data of 1961, the old age dependency ratio was 9.89 and in 2011, the old age dependency ratio reached to 19.64. Thus, the doubling of the old-age dependency means that over the years the old age population is increasing at a faster rate than the working population. It will affect negatively on growth, savings, consumption, taxation, and pension. Increasing old age dependency ratio also implicit the increased responsibility of the working population.
- ❖ During the census year 1961, the index of ageing was 11.93 and during the census year 2011, it was 53.55. Thus, it was estimated that twelve elderly persons were there for hundred children in 1961, which was replaced by 53 elderly persons for hundred children in 2011. This sizeable increase in the index of ageing is an output of demographic transition in Kerala. The exponential rise in the elderly population demands high social security for the elderly persons and the society finds it hard to accommodate the disproportionate growth of the senior citizens.
- ❖ As per the estimations made from the census of 1991, 23.71 per cent of the senior citizens were main workers in Kerala. This proportion decreased to 17.36 per cent in 2001 and it slightly increased to 18.5 per cent in 2011. This is an alarming situation because the participation of the elderly was decreasing while their population were increasing.
- ❖ The census data of 2001 made it clear that the proportion of the rural elderly main workers and the urban elderly main workers to the total elderly main workers were 78.43 per cent and 21.57 per cent respectively. During the census year 1991, the proportion of the rural and the urban elderly main workers to the total elderly workers were 79.65 per cent and 20.35 per cent respectively. But in 2011, among the elderly main workers 58 per cent of them were from rural areas and the remaining 42 per cent were constituted the urban elderly. The difference between the rural elderly main workers and the urban elderly main workers were just 16 per cent instead of 56-60 per cent. Rapid urbanisation, migration and high social and human development in Kerala were the major contributing factors for this minimum disparity.
- ❖ The analysis made on the census data of 1991; it was found out that in rural areas the young elderly constituted 77.57 per cent of the elderly main workers. As per the census data of 2001, and 2011, 74.19 per cent and 76.54 per cent of the elderly main workers were young elderly. During the year 1991, among the urban elderly main workers, the young elderly dominated by 78.83 per cent. The young elderly constituted 77.03 per cent and 79.59 per cent of the main workers during the year 2001 and 2011,

respectively. Thus, from the year 1991 to 2001, it is to be noted that both in rural and urban areas, the involvement of the young elderly main workers in the economic activities during the year 2011 increased after a decline in 2001. But the recovery from the previous decade (1991) was higher in the urban areas than in the rural areas.

- ❖ Among the total elderly main workers 83.94 per cent were men and the rest 16.06 per cent were women during the Census year 1991. As per the census data of 2001, among the total elderly main workers 82.58 per cent were men and the rest 17.42 per cent were women. In 2011, out of the elderly main workers, 81.75 per cent were elderly men and 18.25 were elderly women. Although the population of the elderly women outnumbered the elderly men, male elderly main workers outnumbered the female elderly main workers. There was a large gap between the involvement rate of the elderly men and the elderly women in the economic activities.
- ❖ As per the Census data of 2011, 49.49 per cent of the elderly main workers were engaged in the primary sector, 32.62 per cent of the elderly main workers were engaged in the service sector and the remaining 17.89 per cent were engaged in the secondary sector. The census data of 2001 revealed that, 56.61 per cent of the elderly main workers were engaged in the primary sector. The percentage of the elderly main workers engaged in the secondary and the service sector during the census year 2001 were 15.52 per cent and 27.87 per cent respectively. Thus, in 2011 the proportion of the elderly main workers, who engaged in the primary activities decreased and that of the main workers engaged in the secondary and the tertiary activities increased.
- ❖ An assessment of the data of the Census year 2001 found out that in rural areas, 65.32 per cent of the rural main workers were engaged in the primary sector, followed by the service sector with 21.55 per cent and only 13.13 per cent of the main workers in the rural areas were engaged in the secondary sector. In rural areas, the elderly main workers were highly dominated in the primary sector whereas in urban areas, service sector was dominated by the elderly main workers. Both in the urban and rural areas portrayed least involvement in the secondary sector. Thus, in rural areas the involvement of the seniors in economic activities of the three sectors was getting reduced day by day.
- ❖ The marginal workers of the elderly population during the Census year 1991 was 3.12 per cent. Out of these elderly marginal workers, 83.63 per cent were constituted by rural elderly and the rest of the 16.37 per cent from the urban elderly. During the year 2001, 5.23 per cent of the elderly population was marginal workers. Among the elderly

marginal workers, 82.89 per cent made up by the rural elderly and 17.11 per cent formed by the urban elderly. In 2011, 5.89 per cent of the elderly population were marginal workers. Among the elderly marginal workers in Kerala, 63.44 per cent were rural elderly and the remaining 36.56 per cent were urban elderly. Thus, it can be conjectured that the proportion of the elderly marginal workers were increasing, at the same time it was also noted that the proportion of the rural elderly marginal workers were decreasing and that of the urban elderly marginal workers are increasing.

- ❖ The analysis of the data pertaining to the census year 2011, the elderly marginal workers engaged in the primary sector were 54.45 per cent and the elderly marginal workers engaged in the secondary and tertiary sectors were 24.03 per cent and 21.52 per cent respectively. during the census year 2001, 66.48 per cent were employed in the primary sector. The elderly marginal workers employed in the secondary and the tertiary sector were 17.48 and 16.04 respectively. The proportion of the elderly marginal workers engaged in the primary sector was decreasing overtime, where as their involvement in the secondary and the tertiary sectors increased.
- ❖ In rural areas, 82.8 per cent of the rural elderly marginal workers were involved in the primary sector, while that of the urban area, 58.68 per cent were involved in the primary sector. The elderly marginal workers involved in the secondary and service sector were 10.97 per cent and 6.23 per cent respectively in rural areas. In urban areas, 23.67 per cent of the elderly marginal workers were engaged in the secondary sector and the remaining 17.65 per cent were in the service sector. The rural elderly marginal workers predominantly engaged in the primary activities rather than the other two sectors namely the secondary and service sector. But in urban areas, only 58.68 per cent depended on primary activities.
- ❖ Out of the elderly marginal workers (Census1991), 56.98 per cent were men and 43.02 per cent were women. The elderly marginal workers appeared to have almost equal participation irrespective of the gender differences. During the year 2001, among the total elderly marginal workers, 68.55 per cent were elderly men and 31.45 per cent were elderly women. As per the census data of the year 2011, of the total marginal workers, 62.83 per cent were elderly men and 37.17 per cent were elderly women.
- ❖ Among the young elderly, both men and women exhibited higher participation in agriculture activities and least participation in mining and quarrying. Older-old and oldest-old marginal workers constituted 16.41 per cent and 4.61 per cent respectively of the urban elderly marginal workers. Both the older-old and oldest-old were highly

involved in agricultural activities followed by cultivation. Both the age groups registered least participation in mining and quarrying irrespective of their gender differences.

- ❖ The correlation between the elderly working population and the elderly population was 0.5449, which means that there exists a negative moderate relation between the elderly working population and the elderly population. In Kerala, the growth in the elderly population increased and its proportion to total population increased at an increasing rate.

### **7.2.3 Economic Independence, Encouraging Factors for Productive**

#### **Participation and Socio-Economic Conditions of the Senior Citizens**

- ❖ In the rural areas of Kerala, 36.46 per cent, 52.34 per cent and 11.2 per cent the senior citizens were Christians, Hindus and Muslims respectively. The categories such as Other Backward Class (OBC), general, Scheduled Tribes (ST) and Scheduled Caste (SC) constitute 42.71 per cent, 32.29 per cent, 14.33 per cent and 10.67 per cent, of the senior citizens in rural areas respectively.
- ❖ The married, unmarried and widower category constituted 68.23 per cent, 3.12 per cent and 28.65 per cent of the senior citizens, respectively. The female married elderly is 29.17 per cent and male married elderly constitutes 39.06 per cent. The unmarried female senior citizens were 2.34 per cent in rural areas, while unmarried male senior citizens were only 0.78 per cent. The proportion of female widower and male widower were 21.61 per cent and 7.04 per cent, respectively.
- ❖ In rural areas, 56.77 per cent are living with their spouse and children and 25.52 per cent are living with their children. Among the senior citizens, 12.24 per cent were living with their spouse only. Senior citizens living alone and living with others, constituted 3.91 per cent and 1.56 per cent respectively.
- ❖ Among the senior citizens 47.13 per cent and 42.96 per cent were living their place where they are born and living there for above 10 years. The senior citizens living in the place for 5-10 years, 1-5 years and less than one year come up to 4.42 per cent, 3.65 per cent and 1.84 per cent respectively.
- ❖ In rural areas, 59.12 per cent of the senior citizens have education below SSLC and 13.02 per cent had completed the tenth class. In rural areas of Kerala, 1.56 per cent and 0.52 per cent of the elderly have professional qualification and post graduate degree.

The present study found out that no elderly women were postgraduates. The present study also found out that 19.53 per cent of the senior citizens had no formal schooling.

- ❖ Social security pension is the only source of income for 48.7 per cent of the senior citizens and 4.7 per cent of the senior citizens did not have any income. The senior citizens who constituted the category of female was the ones who received the highest proportion of income as pension – with 37.7 per cent. It is peculiar to note that 2.87 per cent of the senior citizens who were women did not get any type of pension and their male counterparts constituted only 1.3 per cent. The senior citizens who received pension as well as earn income through self-employment came up to 5.73 per cent and 1.3 per cent respectively of female and male citizens. The study has found out that only 0.26 per cent of the senior income both by self-employment and working outside their house as part-time employees.
- ❖ For 88.01 per cent of the senior citizens, social security pension is the major source of income. Only 61.72 per cent of the senior citizens were entitled to receive the old age pension and 26.29 per cent of the senior citizens received pension other than old-age pension. In rural areas, 11.99 per cent of the senior population did not receive any social security pension.
- ❖ There was no income for 21.35 per cent of the senior citizens before they turned into sixty years and sad to state that they were all women. Before entering into the evening of life, no elderly men lived with pension and lived without income. Elderly women engaged in self-employment, working and both self-employment and working constituted 8.07 per cent, 20.06 per cent and 2.86 per cent respectively. Before the age of 60, 0.52 per cent of the elderly women received social security pension and 0.26 per cent of the elderly women worked with pension. The elderly men engaged in self-employment, working, and engaged in both self-employment and working were 15.88 per cent, 22.93 per cent and 8.07 per cent respectively.
- ❖ In rural areas of Kerala, 25.78 per cent of the senior citizens were financially independent. The financially independent elderly men came up to 18.75 per cent and the financially independent elderly women accounted to 7.03 per cent of the senior citizens. Among the remaining dependent senior citizens, 41.66 per cent were fully depending on others and 35.56 per cent were partially depending. The elderly women who are partially dependent and fully dependent were 17.71 per cent and 28.38 per cent, respectively. the elderly men form 14.85 per cent and 13.28 per cent in partially dependent and fully dependent senior citizens, respectively.

- ❖ The senior citizens, who made no financial contribution to the family were 26.82 per cent. Out of the rest, 30.99 per cent and 22.66 per cent of the senior citizens contributed less than 25 per cent and contributed 25-50 per cent of the total household expenditure. More than 75 per cent and 50-75 per cent of the household expenditure were contributed by 8.85 per cent and 10.68 per cent of the senior citizens, respectively.
- ❖ The present study found out that the elderly male has more independent access to economic institutions than the elderly female in rural areas of Kerala which implies the elderly women must depend on others than the elderly men for accessing economic institutions and their services and this difference is found significant.
- ❖ The independent t-test conducted to find out the level of independent access to economic institutions among the elderly workers and the elderly care givers explicated that the elderly workers have more independent access to economic institutions than the elderly care-givers in the rural areas of Kerala.
- ❖ The current research study tested the differences in accessing economic institutions among the senior citizens in different religion and concluded that the senior citizens of Christian religion have more access to economic institutions than their counter parts such as the Hindu senior citizens and the Muslim senior citizens.
- ❖ In analysing the relative independent access to economic institutions among the married, unmarried, and widowed senior citizens, the study inferred that the unmarried senior citizens were highly independent in accessing economic institutions and the widowed senior citizens were slightly independent in accessing economic institutions.
- ❖ One-way ANOVA was applied to evaluate the independent access to economic institutions of senior citizens who have different levels of education and it found that differences in accessing economic institutions independently among the senior citizens who have different levels of education was significant.
- ❖ Based on the analysis, the study presumed that the senior citizens living with the children have more independent access to economic institutions followed by the senior citizens who live alone and the senior citizens living with others have the least independent access to economic institutions in rural areas of Kerala.
- ❖ The mean of the elderly men and the elderly women for economic knowledge were 3.0568 and 1.9984 and that of the elderly workers and the elderly care-givers were 2.6369 and 2.3491 respectively. This difference enlightens the fact that the elderly male and the elderly workers more aware of the welfare policies and various services offered to them than their counterparts in the rural areas of Kerala.

- ❖ The significant P-value of the level of awareness among the senior citizens of the three religions of Kerala implied the reality that the economic knowledge was high among the senior citizens in the Muslim religion and comparatively low among the Hindu senior citizens in rural areas of Kerala.
- ❖ The present study found out the existence of insignificant differences in economic knowledge among the married, unmarried, and widowed senior citizens and among the senior citizens who have different living arrangement.
- ❖ In the present study, the analysis suggests that the older adults with higher levels of education have more knowledge than the older adults with lower levels of education or no education at all, apart from the older adults who have finished their post-graduation. The senior citizens who were post graduates had high level of awareness towards the economic activities.
- ❖ The mean value of children, social worker and media as the sources of economic socialisation were 5.37, 5.15 and 4.37 respectively. Thus, the senior citizens in rural areas depended predominantly on their children, social worker, and media.
- ❖ The study found out the existence significant difference in depending on others for the economic socialisation among the elderly men and women and among the elderly workers and the elderly care-givers. It implies that based on the level of sources of economic socialisation the elderly women and the elderly-caregivers depend more on others than their counter parts for more socialisation.
- ❖ The result of one-way ANOVA which was conducted to compare the level of dependency in economic socialisation among the senior citizens of the three religions, it was concluded that the Muslim senior citizens were depending more on others for the economic socialisation and the Hindu senior citizens depend the least on others.
- ❖ In the present study it was inferred from the analysis that the widowed senior citizens were more depending on others, followed by the unmarried senior citizens and the married senior citizens. Since, the P value is 0.354 the differences were not significant.
- ❖ One-way ANOVA was used to evaluate the sources of economic socialisation of senior citizens based on their level of education and their living arrangement. Since, the P-value was not significant, the study presumed that the differences in the sources of the economic socialisation of senior citizens based on their level of education and their living arrangement was insignificant in rural areas of Kerala.

- ❖ In the rural areas of Kerala, the study found out that the male senior citizens and the elderly workers have more decision-making role than the female senior citizens and the elderly care-givers.
- ❖ The present study conjectured that, in the rural areas of Kerala the decision-making role was comparatively high among the senior citizens of the Muslim religion and comparatively is low among the Hindu senior citizens.
- ❖ The differences in the decision-making role of the senior citizens in household affairs among the married, unmarried, and widowed senior citizens was significant in rural areas of Kerala. It also found that the that the married senior citizens occupy a predominant role rather than the unmarried and the widowed senior citizens and the widowed senior citizens have the least decision-making role in the household affairs of their families.
- ❖ It was inferred from the analysis of variance that the senior citizens who are highly educated have greater decision-making power in the household affairs than the less educated or have no education except the case of senior citizens who completed their post-graduation.
- ❖ In rural areas of Kerala, there exist significant differences in the decision-making role of the senior citizens based on their living arrangement and it could be concluded that the senior citizens living with the spouse and with spouse and children have greater decision-making role and the least decision-making power is attributed for the seniors who are living with their children and others.
- ❖ In the “Economic Independence and Productive Engagement in Later Life Model”, it has been observed that the economic independence has a positive and significant effect on the encouragement in productive participation with a path value of 0.24, that the economic independence has a positive and significant effect on the personal responsibility with a path value of 0.95, and that the personal responsibility has a positive and non-significant effect on the encouragement in productive participation with a path value of 0.06.



### **7.2.5 Determinants and Outcomes of Productive Engagement and Asset and Well-being of the Senior Citizens in the Rural Areas of Kerala**

- ❖ In rural areas, the present study identified that there exists an unequal distribution of the fixed asset among the elderly men and the elderly women. It is an embarrassing fact that discrimination towards women is quite obvious in the distribution of the assets.
- ❖ Chi-square test was used to analyse the ownership of the asset among the elderly workers and the elderly care givers. It was concluded that there exist significant differences between the elderly workers and the elderly care-givers regarding the ownership of land and house and also found that the differences in the ownership of assets like car, motor bike, bicycle and mobile phone between the elderly workers and the elderly caregivers was not significant.
- ❖ In the analysis of the availability for the elderly men and the elderly women being able to use these household items, it was concluded that differences between the elderly men and the elderly women regarding the availability of the household items such as radio, TV, mixer, refrigerator, fan, Ac and washing machine was not significant.
- ❖ The Chi-square test, which was used to analyse the availability of household items to the elderly workers and the elderly care-givers, resulted in a significant P-value for the household items like refrigerator and fan and an insignificant P-value for the availability of household items such as radio, TV, mixer, AC and washing machine.
- ❖ The chi-square value of the senior citizens having the diseases like diabetics, pressure, cholesterol, and thyroid was 12.602 and P-value is less than 0.001. The chi-square value and P-value of liver diseased senior citizens were 1.705 and 0.192 and that of kidney diseased senior citizens were 0.710 and 0.400. The chi-square value of heart disease senior citizens was 4.570 and the P-value was less than 0.001. The chi-square value and P-value of the senior citizens having internal organ diseases other than liver, kidney and heart diseases were 0.219 and 0.640 and that of the senior citizens having physical body pain were 0.608 and 0.436, whereas the chi-square value and P-value of the senior citizens who are disabled in seeing, hearing, and speaking were 2.090 and 0.148.
- ❖ The mean of the encouraging and the discouraging factors for productive engagement of the senior citizens were 5.7907 and 4.4193 and it is concluded that the encouraging factors are strongly existing among the senior citizens of the rural area of Kerala than the discouraging factors.

- ❖ In the “Productive Engagement in Later Life Model” it was inferred that the social factors, the economic factors and the public policy and programmes had positive effect on family well-being and the productive behaviour moderate these relationships, except the relationship between the public policy and programmes and the family well-being.
- ❖ The social factors, the economic factors and the public policy and programmes have positive effect on personal well-being and the productive behaviour moderate these relationships, except the relationship between public policy and programmes and the personal well-being.
- ❖ The social factors, the economic factors and the public policy and programmes have positive effect on social well-being and the productive behaviour moderate these relationships, except the relationship between economic factors and the social well-being.

### **7.3 Contributions of the Researcher**

The major thrust of the present study was to find out the economic independence and productive engagement of the senior citizens in the rural areas of Kerala. The study empirically proved that the senior citizens in the rural areas of Kerala were productively engaged in activities, more precisely, the overall well-being was found largely among the working senior citizens than the care-giving senior citizens. The influencing factors of productive engagement such as social factors, economic factors, and the public policy and programmes created a positive effect on the well-being of the senior citizens who were engaged in both working and care-giving. The study through the model fitting brought out that the personal responsibility played no role in increasing the productive engagement of the senior citizens in the rural areas of Kerala.

Initially the study presented the need for the senior citizens to be economically independent and productively engaged by analysing the growth of the old-age population, old-age dependency ratio and the index of ageing in Kerala. Hence, it was found out that Kerala is passing through the crucial stage of population ageing and encouraging elderly for productive engagement is evitable. Only very smaller portion of the senior citizens were engaged in economic activities. A gender wise and age group wise assessment of the involvement of the senior citizens in economic activities both in rural and urban areas were done. The issues pinpointed hither were the decreasing involvement of the senior citizens in the economic activities in the rural areas, the declining involvement of the elderly women and the elderly in the age group of 60-69 in the economic activities.

The study focused on how the senior citizens could be encouraged for productive participation. The model “Economic Independence and Productive Engagement in Later Life” in the study acknowledged the direct relationship between the economic independence and the encouraging factors for productive engagement and a direct relationship between the economic independence and personal responsibilities. The study also found out that there was no mediating role for personal responsibilities between economic independence and the encouraging factors for productive engagement. The socio-economic conditions of the senior citizens in the rural areas were also portrayed in the study. The study empirically tested and analysed the constructs of economic independence, such as independent access to economic institution, sources of economic socialisation, economic knowledge and decision-making role, based on the individual characteristics of the senior citizens. The analysis on the constructs of the economic independence found out that less access to economic institutions, low decision-making role, low level of economic knowledge of economic services were found more among the low educated, care-giving senior citizens, the senior citizens living alone and living with others and among the widowed senior citizens.

In the final stage, the factors affecting the productive engagement of the senior citizens and its subsequent benefit on the well-being of the senior citizens themselves, the family, and the society were analysed by conducting a comparison between the working senior citizens and care-giving senior citizens. In addition to these, the present study also examined the ownership of assets such as fixed assets and household assets based on their gender and nature of activity, the health status of the senior citizens based on the nature of activity and their level of knowledge of the initiatives implemented by the government to ensure their well-being. The study further analysed the impact of the encouraging factors and the discouraging factors among the senior citizens in the rural areas and found out that encouraging factors had more role than discouraging factors for productive engagement.

Economic independence and productive engagement of the senior citizens mark a paradigm shift that benefits themselves, their family, and the society. Government, institutions, and individuals must work together to embrace this transformation. The attitude of the society must be directed towards where the senior citizens can flourish, contribute, and keep their dignity and well-being far into their golden years by encouraging lifelong learning, providing environment for employment, and to be informed of policies and programmes. Thus, by reimagining the role passive role of senior citizens into an active, inclusive, and vibrant role, the future of senior population experience successful ageing in the evening of their life.

## **7.4 Areas of Further Research**

- ❖ A comparative study could be undertaken in the area of productive engagement and the economic independence of the senior citizens by including the senior citizens in urban areas.
- ❖ Ageing is a global phenomenon. So, research should be done using the same methodology taking into consideration other states of India.
- ❖ Instead of studying the mediating role of personal responsibility, other factors like health and their income could be used in further research.
- ❖ Studies could be undertaken by focusing on the senior citizens who are engaged in paid employment rather than self-employment.
- ❖ Studies could be undertaken by including other old age groups such as the older -old and oldest-old category.
- ❖ The studies on the productive engagement of the senior citizens can be extended to a sector wise involvement of the senior citizens rather than their productive behavior.

## **7.5 Policy Implications**

Fostering economic independence and productive engagement of the senior citizens in the rural areas of Kerala requires tackling a number of challenges unique to this demographic and geographic context. The following policy recommendations could successfully encourage senior citizens in rural Kerala to achieve economic independence and increased productive participation:

- ❖ The present study invites the kind attention of the policy makers in Kerala to make necessary changes in the qualifying criteria of the social security pension because pension is the only source of income for most the senior citizens. Thus, it should not be denied for those who really deserve it.
- ❖ However, the senior citizens have accumulated wisdom and experience, the noted drawback of the senior workers were, they lack skill and training according to the requirement of the modern world. Hence, the authorities should focus on to provide affordable and available opportunities for training by collaborating with community organisations and vocational training institutions. In addition to these, implement skill-development initiatives directed towards requirements of the senior citizens in rural areas, with a focus on regional industries including agriculture, handicrafts, and traditional crafts.

- ❖ Since, the senior citizens in the rural areas of Kerala were crowded in the agriculture sector, it is better to create training programmes and agricultural extension services that help the senior citizens to upgrade their farming techniques, diversify their crops, and to use sustainable farming techniques and create a cooperative agricultural programmes that enable senior citizens to pool resources, exchange information, and promote their products together.
- ❖ For the senior citizens who opted for self-employment, offer entrepreneurship training, and ensure the access to credit facilities.
- ❖ Since, the senior citizens in the rural areas of Kerala were financially dependent on others and have to depend on others to access financial institutions and services, facilitate financial literacy programmes and collaborate with the local banks and credit institutions for the easy access for financial services.
- ❖ Along with the financial literacy programmes, digital literacy programmes must be promoted to bridge the digital divide among the older and younger generation. Imparting digital literacy programmes, enable the senior citizens to gain more knowledge and skill, increased access to services and least dependence on others for economic socialization.
- ❖ Improve rural infrastructure following the requirements of the senior citizens to enable them to access institutions and services and to avail more economic opportunities.
- ❖ The senior citizens lack knowledge of the various policies and programmes implemented for their welfare. Thus, the policy makers should take necessary steps to bridge this gap. Establishing community learning centers will be an effective solution to this problem. It provides a platform for the senior citizens, where they can participate in workshops and training programmes, share knowledge and ideas, express their opinions and learn new skills in a supportive environment.
- ❖ The authorities should facilitate more access to various institutions and services and impart knowledge to the senior citizens. Because it is the only way to make the senior citizens economically independent and thereby, they can be encouraged to engage in productive activities.
- ❖ To foster a sense of pride and achievement, launch awards and recognition programmes that acknowledge the contributions of active senior citizens in rural communities. It helps to remove the feeling of being useless and marginalized among the senior citizens.

By focusing on these policy implications, the state of Kerala can create an endowing environment for the senior citizens in the rural areas of Kerala to enhance their economic independence, encouragement for productive participation and improvement in overall well-being of the senior citizens.

## **7.6 Conclusion**

The study consisted of an analysis on the involvement of the senior citizens in economic activities based on their gender, age-group, and place of residence. An in depth analysis was done on the mediating effect of personal responsibilities between the economic independence and encouraging factors for productive engagement. The study also investigated the moderating effect of the productive behavior on the influence of the social factors, economic factors, public policy and programmes for the overall well-being of the senior citizens in rural areas of Kerala. The constructs of the economic independence such as sources of economic socialisation, independent access to economic institution, economic knowledge and decision-making role played a vital role in encouraging the senior citizens for productive engagement. There was no role for personal responsibilities in the productive participation of the senior citizens in rural areas of Kerala. The productive engagement of the senior citizens improved the well-being of the senior citizens themselves, well-being of the family and the social well-being. The overall well-being of the senior citizens was comparatively high among the working senior citizens than the care-giving senior citizens. Thus, it can be concluded that the involvement of the senior citizens varies indirectly with increase in the population of the senior citizens. The study proved that the productive engagement of the senior citizens improved the well-being of the senior citizens, especially that of the working senior citizens. The study can be concluded by stating that the senior citizens should not be forced to work or to be productively engaged in their later life. They can only be encouraged to be economically independent and make productive contributions to their family and society and to make their life more contented and happier.

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# **Appendix 1**

## **Interview Schedule**

## QUESTIONNAIRE

### Economic Independence and Productive Engagement of Senior Citizens in Rural Areas of Kerala

The survey is carried out as part of the research work leading to the award of PhD Degree in Economics from Calicut University, Kozhikode. The Information collected through this survey will be used only for research purpose and not for any other purpose. Your kind co-operation is requested.

Sathya Prakash. P

(Research Scholar, Panampilly Memorial Government College, Chalakkudy)

#### PART I - IDENTIFICATION

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1. Serial no.:
2. District:
3. Panchayath:
4. Name:
5. Address:
6. Phone number:

#### PART II - SOCIO-ECONOMIC PROFILE

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7. Age:
8. Gender:  1 = Male    2 = Female    3 = Transgender
9. Religion:  1 = Hindu    2 = Muslim    3 = Christian    4 = Others

10. Category:  1 = General 2 = OBC 3 = SC 4 = ST

11. Marital status:  1 = Married 2 = Unmarried  
3 = Widower 4 = Divorced

12. Level of education:  1 = Illiterate 2 = Below SSLC 3 = SSLC  
4 = Higher Secondary 5 = Degree 6 = PG  
7 = Vocational Education and Diploma  
8 = Professional 9 = Others

13. Type of living:  1= Living alone 2= Living with spouse only  
3= Living with children and spouse  
4= Living with children only 5= Living with others

14. For how long have you been living in this area?

**PART-III**

**Economic Independence of the Senior Citizens**

15. Present personal income:

16. Personal income before 60:

17. Income of the family:

18. What percentage of the total household budget is covered by your contribution?

1=Less than 25 2=between 25 – 50  
3=Between 50 – 75 4=greater than 75  
5=Don't know 6= No contribution

19. Are you financially dependent?

1=Fully dependent      2=Partially dependent      3=Independent

20. Dependency on Others for Economic Socialisation:

Sources of Economic Socialisation	NAD	ND	SND	N	SD	D	HD
Spouse							
Children							
Grandchildren							
Friends & Relatives							
Social Worker							
Media							

21. Independent Access to Economic and Social Institutions

Economic and Social Institutions	NAV	NAA	NA	N	SA	A	HA
Bank and Society							
Hospital							
Health Centre							
Medical Shop							
Administrative offices							
Transportation Facilities							
Akshaya e-Centre, CSC							
Religious Centres							
Markets							

22. Level of Knowledge of Various Economic Services

<b>Financial Services</b>	<b>HUA</b>	<b>UA</b>	<b>SUA</b>	<b>N</b>	<b>SA</b>	<b>A</b>	<b>HA</b>
Cash Transactions							
Online Transactions							
Transactions using cheque							
Loan Schemes							
Investment plans							
Savings Plans							
Insurance							
Welfare Schemes							
Subsidies and Discounts for Elderly							

23. Decision Making Role in Household Affairs:

<b>Household Affairs</b>	<b>NAC</b>	<b>NC</b>	<b>NR</b>	<b>N</b>	<b>SR</b>	<b>AR</b>	<b>HR</b>
Education of grandchildren							
Marriage of grandchildren							
Job related decisions of grand children							
Purchasing of food items, cloths and other essentials							
Purchasing of other household items							
Buying and selling of property							
Future savings plan							
Gift to children, grandchildren, others							
Arrangement of events							

## 24. Personal Responsibilities

<b>Responsibilities</b>	<b>NAR</b>	<b>NR</b>	<b>SNR</b>	<b>N</b>	<b>SR</b>	<b>R</b>	<b>HR</b>
Living within income							
In investing and saving							
In discharging liabilities							
In performing household activities							
In contributing to the family							
Solving and managing issues and risks							
Preserving the environment							
Building knowledge of the current affairs							
Taking care of your health							

## 25. Assets and wealth conditions

1. Ownership of Land:  1= Yes 2= No
2. Ownership of House:  1= Yes 2= No
3. Radio:  1=Yes 2=No
4. TV:  1=Yes 2=No
5. Mixer cum Grinder:  1=Yes 2=No
6. Bicycle:  1=Yes 2=No
7. Motor cycle:  1=Yes 2=No
8. Car:  1=Yes 2=No

9. Refrigerator:  1=Yes 2=No
10. Fan:  1=Yes 2=No
11. A C:  1=Yes 2=No
12. Washing Machine:  1=Yes 2=No
13. Mobile phone:  1=Yes 2=No

**26. Social Security and Health:**

1. Do you receive Old Age Pension:  1=Yes 2=No
2. Do you receive any pension other than Old Age Pension:  1=Yes 2=NO
3. Do You Have Any of the Following Diseases?

Sl.No	Diseases	Mark
1	Diseases like Diabetics, Pressure, Cholesterol, Thyroid	
2	Heart Diseases	
3	Liver Diseases	
4	Kidney Diseases	
5	Other Internal Organ Diseases	
6	Physical Body Pain	
7	Disability in seeing, hearing, and speaking	

**PART - IV**

**Productive Engagement of Senior Citizens**

27. You are involved in:  1=Working & Self-employment  
2= Caregiving & household activities

### 28. Encouraging Factors for Productive Participation

<b>Factors</b>	<b>SDA</b>	<b>DA</b>	<b>SLDA</b>	<b>N</b>	<b>SLA</b>	<b>A</b>	<b>SA</b>
Good health conditions							
Support from family							
To take care of the family							
To have better standard of living							
To be more financially secure							
To be independent							
To maintain the role of family head							
To remove the feeling of loneliness							
To stay active							
To satisfy their wants							
Not to be a burden for the family							
To feel contributing their family							
Skill and qualification							
Incentives and promotional variables							

### 29. Discouraging Factors for Productive Participation

<b>Factors</b>	<b>SDA</b>	<b>DA</b>	<b>SLDA</b>	<b>N</b>	<b>SLA</b>	<b>A</b>	<b>SA</b>
Lack of support from the family							
Lack of adequate opportunities							
Lack of incentives or promotional variables							
Lack of training and communication skills							
Risk involved							
Age discrimination							
Pension and other social welfare measures							



30. Socio-Demographic Factors on Productive Engagement:

<b>Factors</b>	<b>SDA</b>	<b>DA</b>	<b>SLDA</b>	<b>N</b>	<b>SLA</b>	<b>A</b>	<b>SA</b>
Health conditions							
Support from the family							
To take care of the family							
To have a better standard of living							
To maintain the role of family head							
To remove the feeling of loneliness							
To stay active							
Not to become a burden							
Positive attitude from society							
Skill and qualification							

31. Economic Factors on Productive Engagement:

<b>Factors</b>	<b>SDA</b>	<b>DA</b>	<b>SLDA</b>	<b>N</b>	<b>SLA</b>	<b>A</b>	<b>SA</b>
Increasing expenditure							
To meet day to day affairs							
To perform responsibilities							
To be independent							
To earn income							
To secure financial stability							
Financial liabilities							
Unemployed children							
Interstate labor migration							
To satisfy wants							
Can contribute to the family							

### 32. Public Policy and Programmes for Productive Engagement:

<b>Factors</b>	<b>SDA</b>	<b>DA</b>	<b>SLDA</b>	<b>N</b>	<b>SLA</b>	<b>A</b>	<b>SA</b>
Incentives and promotional variables							
More subsidies and assistance							
Welfare measures							
Provide Age – friendly environment							
Insufficient social security measures							

### 33. Outcomes on Individuals, Family and Society

<b>Outcomes on Individual</b>	<b>SDA</b>	<b>DA</b>	<b>SLDA</b>	<b>N</b>	<b>SLA</b>	<b>A</b>	<b>SA</b>
Remove the feeling of loneliness							
Can live as they wish							
Reduces mental stress							
Can maintain the decision-making role							
Can maintain a good quality of life							
Financially less dependent							
Can meet their own expenses							
Helps to stay healthy and active							
Gain happiness and satisfaction							
Improvement of muscle strength and balance							
<b>Outcome on Family</b>							
Take care of the family							
Assistance in household affairs							
Assistance in financial affairs							
Reduced dependency on them							

<b>Outcome on Society</b>							
Better standard of living							
Increased social participation							
Creates an output							
Experienced workforce							
Trains the next generation of workers							

34. Level of Awareness of Welfare Measure:

<b>Measures</b>	<b>HUA</b>	<b>UA</b>	<b>SUA</b>	<b>N</b>	<b>SA</b>	<b>A</b>	<b>HA</b>
Vayomithram Project							
Vayo Amrutham Project							
Age Friendly Panchayat							
Mandhahasam							
Sayam Prabha Home							
Vayo Madhuram							
Grand Care Project- Vayokshema Call Centre							
Second Innings Home Project							
Implementation of Maintenance and Welfare of Parents and Senior Citizens Act 2007							
Vayoraksha							
Elderly Line 14567- A helping hand for the elderly							

## **Appendix II**

### **The Kerala Maintenance and Welfare of Parents and Senior Citizens Rules, 2009**

# ***The Kerala Maintenance and Welfare of Parents and Senior Citizens Rules, 2009***

***Published vide Notification G.O.(P) No. 38/2009/SWD. dated Thiruvananthapuram, 28th August, 2009***

*ker002*

**Government of Kerala**

**Social Welfare (C) Department**

**S.R.O. No. 723/2009.** - In exercise of the powers conferred by section 32 of the Maintenance and Welfare of Parents and Senior Citizens Act, 2007 (Central Act 56 of 2007), the Government of Kerala make the following rules, namely: -

## **CHAPTER I**

### ***Preliminary***

**1. Short title and commencement.** - (1) These rules may be called the Kerala Maintenance and Welfare of Parents and Senior Citizens Rules, 2009.

(2) They shall come into force at once.

**2. Definitions.** - (1) In these rules, unless the context otherwise requires,-

- (a) "*Act*" means the Maintenance and Welfare of Parents and Senior Citizens Act, 2007 (Central Act 56 of 2007);
- (b) "*application*" means an application made to a tribunal under section 5;
- (c) "*blood relations*", in the context of a male and a female inmate mean father-daughter, mother-son, and brother-sister (not cousins);
- (d) "*Form*" means a form appended to these rules;
- (e) "*inmate*", in relation to an old age home, means a senior citizen duly admitted to reside in such a home;
- (f) "*opposite party*" means the party against whom an application for maintenance has been filed under section 4;
- (g) "*Presiding Officer*" means an officer appointed to preside over a Maintenance Tribunal referred to under sub-section (2) of section 7, or an Appellate Tribunal under sub-section (2) of section 15;
- (h) "*Schedule*" means a Schedule appended to these rules;
- (i) "*section*" means a section of the Act;

(j) "State Government" means the Government of Kerala.

(2) Words and expressions defined in the Act but not defined in these rules shall have the meanings respectively assigned to them in the Act.

## CHAPTER II

### *Procedure for Maintenance Tribunal and Conciliation Officers*

**3. Panel for appointment as Conciliation Officers.** - (1) Every Tribunal shall prepare a panel of persons suitable for appointment as Conciliation Officer under sub-section (6) of section 6, which shall include the Maintenance Officers designated under section 18.

(2) Persons referred to under sub-rule (1), other than Maintenance Officers designated under section 18, shall be chosen subject to fulfilling the following conditions, namely: -

- (a) he should be associated with an organisation which is working for the welfare of senior citizens and/or weaker sections, or in the area of education, health, poverty-alleviation, women's empowerment, social welfare, rural development or related fields, for at least two years with an unblemished record of service;
- (b) he should be a senior office-bearer of organisation; and
- (c) he should possess good knowledge of law;

Provided that a person who is not associated with an organisation of the kind mentioned above, may also be included in the panel mentioned in sub-rule (1) subject to fulfilling the following conditions, namely: -

- (i) he must have a good and unblemished record of public service in one or more of the areas mentioned in clause (a); and
- (ii) he should possess good knowledge of law.

(3) The Tribunal shall publish the panel mentioned in sub-rule (1) for general information at least twice in every year, on 1st January and 1st July, respectively, and at every time any change is effected therein.

**4. Procedure for filing an application for maintenance, and its registration.** - (1) An application for maintenance under section 4 shall be made in Form 'A', in the manner laid down in clauses (a) and (b) of sub-section (1) of section 5.

(2) On receipt of an application under sub-rule (1), the Presiding Officer shall cause-

- (a) its essential details to be entered in a Register of Maintenance Claim Cases, to be maintained in such form as the State Government may direct, and
- (b) its acknowledgement in Form 'B' to be given, notwithstanding anything contained in rule, 5 to the applicant or his authorised representative in case of hand delivery, and its dispatch

by post in other cases and the acknowledgement shall specify, *inter alia*, the registration number of the application.

(3) Where a Tribunal takes cognizance of a maintenance claim, *suo motu*, the Presiding Officer shall, after ascertaining facts, get Form 'A' completed as accurately as possible, through the staff of the Tribunal, and shall, as far as possible, get it authenticated by the concerned senior citizen or parent, or any person or organisation authorised by him and shall cause the same to be registered in accordance with clause (a) of sub-rule (2) above.

**5. Preliminary Scrutiny of the application.** - (1) On receipt of an application under sub-section (1) of section 5, the Tribunal shall satisfy itself that. -

(a) the application is complete; and

(b) the opposite party has, *prima facie*, an obligation to maintain the applicant in terms of section 4.

(2) In case where the Tribunal finds any lacunae in the application, it may direct the applicant to rectify such lacunae within a reasonable time limit.

**6. Notice to the Opposite Party.** - (1) Once the Tribunal is satisfied on the points mentioned in sub-rule (1) of rule 5, it shall cause to be issued to each person against whom an application for maintenance has been filed, a notice in Form 'C' directing them to show cause why the application should not be granted, along with a copy of the application and its enclosures, in the following manner: -

(a) by hand delivery through the applicant if he so desires, else through a process server, or

(b) by registered post with acknowledgement due.

(2) The notice shall require the opposite party to appear in person, on the date to be specified in the notice and to show cause, in writing, as to why the application should not be granted and shall also inform that, in case he fails to respond to it, the Tribunal shall proceed *ex parte*.

(3) Simultaneously with the issue of notice under sub-rules (1) and (2), the applicant(s) shall also be informed of the date mentioned in sub-rule (2), by a notice issued in Form 'C'.

(4) The provisions of Order V of the Code of Civil Procedure, 1908, shall apply, *mutatis mutandis*, for the purpose of service of notice under sub-rules (2) and (3).

**7. Procedure in case of non-appearance by the Opposite Party.** - In case, despite service of notice, the opposite party fails to show cause in response to a notice, the Tribunal shall proceed *ex parte*, by taking evidence of the applicant and making such other inquiry as it deems fit, and shall pass an order disposing of the application.

**8. Procedure in case of admission of claim.** - If on the date fixed in the notice issued under rule 6, the opposite party appears and accepts his liability to maintain the applicant, and the two parties arrive at a mutually agreed settlement, the Tribunal shall pass an Order accordingly.

**9. Procedure for impleading children or relatives.** - (1) An application by the opposite party, under the proviso to sub-section (5) of section 5, to implead any other child or relative of the applicant, shall be filed on the first date of hearing as specified in the notice issued under sub-rule (2) of rule 6:

Provided that no such application shall be entertained after such first hearing, unless the opposite party shows sufficient cause for filing it at a later stage.

(2) On receipt of an application under sub-rule (1) the Tribunal shall, if it is *prima facie* satisfied, after hearing the parties, about the reasonableness of such application, issue notice to such other child or relative to show cause why they should not be impleaded as a party, and shall after giving them an opportunity of being heard, pass an order regarding their impleadment or otherwise.

(3) In case the Tribunal passes an order of impleadment under sub-rule (2), it shall cause a notice to be issued to such impleaded party in Form "C" in accordance with rule 6.

**10. Reference to Conciliation Officer.** - (1) In case, on the date fixed in the notice issued under rule 6, the opposite part appears and show cause against the maintenance claim, the Tribunal shall seek the opinion of both the parties as to whether they would like the matter to be referred to a Conciliation Officer and if they express their willingness in this behalf, the Tribunal shall ask them whether they would like the matter to be referred to a Conciliation Officer and if they express their Willingness in this behalf, the Tribunal shall ask them whether they would like the matter to be referred to a person included in the panel prepared under the 3, or to any other person acceptable to both parties.

(2) If both the parties agree on any person, whether included in the panel under rule 3 or otherwise, the Tribunal shall appoint such person as the Conciliation Officer in the case, and shall refer the matter to him, through a letter in Form 'D', requesting the Conciliation Officer to try and work out a settlement acceptable to both parties, within a period not exceeding one month from the date of receipt of the reference.

(3) The reference in Form 'D' shall be accompanied with copies of the application and replies of the opposite party thereto.

**11. Proceedings by Conciliation Officer.** - (1) Upon receipt of a reference under rule 10, the Conciliation Officer shall hold meetings with the two parties as necessary and shall try to work out a settlement acceptable to both the parties, within a period of one month from the date of receipt of the reference.

(2) If the Conciliation Officer succeeds in working out a settlement acceptable to both the parties, he shall draw up a memorandum of settlement in Form 'E', get it signed by both parties, and forward it, with a report in Form 'F' along with all records of the case received from the Tribunal, back to the Tribunal within a month from the date of receipt of the reference.



(3) If the Conciliation Officer is unable to arrive at a settlement within one month after the receipt of a reference under rule (10), he shall return the papers received from the Tribunal along with a report in Form 'G', showing efforts made to bring about a settlement and the points of difference between the two parties which could not be reconciled.

**12. Action by the Tribunal in case of settlement before a Conciliation Officer.** - (1) When the Tribunal receives a report from the Conciliation Officer under sub-rule (2) of rule 11, along with a memorandum of settlement, it shall give notice to both parties to appear before it on a date to be specified in the notice, and confirm the settlement.

(2) If on the date specified in the notice as above, the parties appear before the Tribunal and confirm the settlement arrived at before the Conciliation Officer, the Tribunal shall pass a final order in terms of such settlement.

**13. Action by the Tribunal in other cases.** - (1) In case where-

- (i) the applicant(s) and the opposite parties do not agree for reference to their dispute to a Conciliation Officer as per rule 10, or
- (ii) the Conciliation Officer appointed under rule 10 sends a report under sub-rule (3) of rule 11, conveying his inability to arrive at a settlement acceptable to both the parties, or
- (iii) no report is received from a Conciliation Officer within the stipulated time-limit of one month, or
- (iv) in response to the notice issued under sub-rule (1) of rule 12, one or both the parties decline to confirm the settlement arrived at by the Conciliation Officer.

The Tribunal shall give to both the parties an opportunity of advancing evidence in support of their respective claims, and shall, after a summary inquiry as provided in sub-section (1) of section 8, pass such order as it deems fit.

(2) An order passed under rule 7, rule 8 or under sub-rule (1) above shall be a speaking one, spelling out the facts of the case as ascertained by the Tribunal, and the reasons for such order.

(3) While passing an order under sub-rule (1), directing the opposite party to pay maintenance to an applicant, the Tribunal shall take the following facts into consideration: -

- (a) amount needed by the applicant to meet his basic needs, especially food, clothing, accommodation, and health care.
- (b) income of the opposite party.
- (c) value of, and actual and potential income from the property, if any, of the applicant which the opposite party would inherit and/or is in possession of.

(4) A copy of every order passed, whether final or interim on an application, shall be given to the applicant(s) and the opposite party or their representatives, in person, or shall be sent to them through a process server or by registered post.

**14. Maximum maintenance allowance.** - The maximum maintenance allowance which a Tribunal may order against the opposite party to pay shall, subject to a maximum of rupees ten thousand per month, be fixed in such a manner that it does not exceed the monthly income from all sources of the opposite party, divided by the number of persons in his family, counting the applicant or applicants also among the opposite party's family members.

### CHAPTER III

#### *Procedure of Appellate Tribunal*

**15. Form of appeal.** - An appeal under sub-section (1) of section 16 shall be filed before the Appellate Tribunal in Form 'H', and shall be accompanied by a copy of the impugned order of the Maintenance Tribunal.

**16. Registration and acknowledgement of appeal.** - On receipt of an appeal, the Appellate Tribunal shall register it in a register to be maintained for the purpose in such form as the State Government may direct, and shall, after registering such appeal, give an acknowledgement to the appellant, specifying the appeal number in Form 'I'.

**17. Notice of hearing to the respondent.** - (1) On receipt of an appeal, the Appellate Tribunal shall, after registering the case and assigning an appeal number, cause notice to be served upon the respondent under its seal and signature in Form 'J' requesting to appear before the Appellate Tribunal on the date specified;

(2) The notice under sub-rule (1) shall be issued through registered post with acknowledgement due, or through a process server;

(3) Simultaneously with the issue of notice under sub-rules (1) and (2) the appellant shall also be informed the date mentioned in sub-rule (1) by a notice in form 'J';

(4) The provisions of Order V of the Civil Procedure Code shall apply *mutatis mutandis* for the purposes of service of notice issued under sub-rule (1) and (3).

### CHAPTER IV

#### *Scheme for Management of Old Age Homes Established Under Section 19*

**18. Scheme for management of old age homes for indigent senior citizens.** - (1) Old age homes established under section 19 shall be run in accordance with the following norms and standards: -

(A) The home shall have physical facilities and shall be run in accordance with the operational norms as laid down in the Schedule.

(B) Inmates of the home shall be selected in accordance with the following procedure: -

- (a) application shall be invited at appropriate intervals, but at least once in each year, from indigent senior citizens, as defined in section 19 of the Act, desirous of living in the home;
- (b) where the number of eligible applicants on any occasion is more than the number of places available in a home for admission, selection of inmates will be made in the following manner: -
  - (i) the more indigent and needy will be given preference over the less indigent applicants;
  - (ii) other things being equal, older senior citizens will be given preference over the less old; and
  - (iii) other things being equal, female applicants will be given preference over male applicants.

Illiterate and/or very infirm senior citizens may also be admitted without any formal application if the District Magistrate or other competent authority, designated by him for the purpose, is satisfied that the senior citizen is not in a position to make a formal application, but is badly in need of shelter;

- (C) While considering applications or cases for admission, no distinction shall be made on the basis of religion or caste;
- (D) The home shall provide separate lodging for men and women inmates, unless a male and a female inmate are either blood relations or a married couple;
- (E) Day-to-day affairs of the old age home shall be managed by a Management Committee which shall be constituted in accordance with orders and guidelines issue by the State Government from time to time, such that inmates are also suitably represented on the Committee.

(2) State Government may issue detailed guidelines/orders from time to time for admission into and management of old age homes in accordance with the norms and standards laid down in sub-rule (1) and the Schedule.

## **CHAPTER V**

### ***Duties and Powers of the District Magistrate***

**19. Duties and powers of the District Magistrate.** - (1) The District Magistrate shall perform the duties and exercise the powers mentioned in sub-rules (2) and (3) so as to ensure that the provisions of the Act are properly carried out in his district.

(2) It shall be the duty of the District Magistrate to-

- (i) ensure that life and property of senior citizens of the district are protected and they are able to live with security and dignity;

- (ii) oversee and monitor the work of Maintenance Tribunals and Maintenance Officers of the district with a view to ensuring timely and fair disposal of applications for maintenance, and execution of Tribunals' orders;
  - (iii) oversee and monitor the working of old age homes in the district so as to ensure that they conform to the standards laid down in these rules, and any other guidelines and orders of the State Government;
  - (iv) ensure regular and wide publicity of the provisions of the Act, and Central and State Governments' programmes for the welfare of senior citizens;
  - (v) encourage and co-ordinate with Panchayats, Municipalities, Nehru Yuva Kendras, Educational Institutions especially their National Service Scheme Units, Organisations, Specialists, Experts, Activists, etc. working in the district so that their resources and efforts are effectively utilised for the welfare of senior citizens of the district;
  - (vi) ensure provision for timely assistance and relief to senior citizens in the event of natural calamities and other emergencies;
  - (vii) ensure periodic sensitisation of officers of various Department and Local Bodies concerned with the welfare of senior citizens, towards the needs of such citizens, and the duty of the officers towards the latter;
  - (viii) review the progress of investigation and trial of cases relating to senior citizens in the district, except in cities having a Police Commissioner;
  - (ix) ensure that adequate number of prescribed application forms for maintenance are available in offices of common contact for citizens such as Panchayats, Post Offices, Block Development Offices, Tahsil Offices, Collectorate, Police Stations, etc;
  - (x) promote establishment of dedicated helplines for senior citizens at district headquarters, to begin with; and
  - (xi) perform such other functions as the State Government may, by order, assign to the District Magistrate in this behalf, from time to time.
- (3) With a view to performing the duties mentioned in sub-rule (2), the District Magistrate shall be competent to issue such directions, not inconsistent with the Act, these rules, and general guidelines of the State Government, as may be necessary, to any concerned government or statutory agency or body working in the district, and especially to the following: -
- (a) Officers of the State Government in the Police, Health and Publicity Departments, and the Department dealing with welfare of senior citizens;
  - (b) Maintenance Tribunals and Conciliation Officers;
  - (c) Panchayats and Municipalities; and
  - (d) Educational institutions.

## CHAPTER VI

### *Protection of Life and Property of Senior Citizens*

**20. Action plan for the protection of life and property of senior citizens.** - (1) The District Superintendent of Police in every Districts, and in the case of cities having a Police Commissioner, such Police Commissioner shall take all necessary steps, subject to such guidelines as the State Government may issue from time to time, for the protection of life and property of senior citizens.

(2) Without prejudice to the generality of sub-rule (1)-

- (i) each police station shall maintain an up-to-date list of senior citizens living within its jurisdiction, especially those who are living by themselves (i.e., without there being any member in their household which is not a senior citizen);
- (ii) a representative of the police stations together, as far as possible, with a social worker or volunteer, shall visit such senior citizens at regular intervals of at least once in a month, and shall, in addition, visit them as quickly as possible on receipt of a request of assistance from them;
- (iii) complaints/problems of senior citizens shall be promptly attended to, by the Local Police;
- (iv) one or more Volunteers Committee(s) shall be formed for each Police Station which shall ensure regular contact between the senior citizens, especially those living by themselves, on one hand, and the police and the district administration on the other.
- (v) the District Superintendent of Police, or the Police Commissioner as the case may be, shall cause to be published widely in the (sic) and through the Police Stations, at regular intervals, the steps being taken for the protection of life and property of senior citizens;
- (vi) each Police Station shall maintain a separate register containing all important particulars relating to the offences committed against senior citizens, in such form as the State Government may, by order, specify;
- (vii) the register referred to in clause (vi) shall be kept available for public inspection, and every officer inspecting a Police Station shall invariably review the status as reflected in the register.
- (viii) the Police Station shall send a monthly report of such crime to the District Superintendent of Police/Police Commissioner by the 10th (sic) every month;
- (ix) list of Do's and Don'ts to be followed by senior citizens in the interest of their safety will widely be publicized;
- (x) antecedents of domestic servants and others working for senior citizens shall be promptly verified, on the request of such citizens;

- (xi) community policing for the security of senior citizens will be undertaken in conjunction with citizens living in the neighbourhood, Residents Welfare Associations, Youth Volunteers, Non-Government Organisations, etc;
- (xii) the District, Superintendent of Police/Police Commissioner shall submit to the Director General of Police and to the District Magistrate, a monthly report by the 20th of every month, about the details of crime against senior citizens during the previous month, including progress of investigation and prosecution of registered offences, and preventive steps taken during the month.
- (xiii) the District Magistrate shall cause the report to be placed before the district-level Co-ordination-cum-Monitoring Committee constitute under rule 22;
- (xiv) The Director General of Police shall cause, the report submitted under clause (xii) to be compiled, once a quarter, and shall submit them to the State Government every quarter as well as every year for, *inter alia* being placed before the State Council of Senior Citizens constituted under rule 21.

## CHAPTER VII

### *State Council and District Committees of Senior Citizens*

**21. State Council of Senior Citizens.** - (1) The State Government may, be order, establish a State Council of Senior Citizens to advise the State Government on effective implementation of the Act and the Rules and the perform such other functions in relation to senior citizens as the State Government may specify.

(2) The State Council shall consist of the following members, namely: -

- (i) Minister of the State Government in-charge of Social Welfare; Chairman,  
ex-officio
- (ii) Secretaries of Departments of the State Government dealing with Disabilities, Senior Citizens Welfare, Social Welfare, Health, Home, Publicity, Pensions and other subjects of concern to the senior citizens; Member  
ex-officio
- (iii) Such number of specialities and activists in the field of senior citizens, as the State Government may determine, to be nominated by the State Government; Members

(iv) such number of eminent senior citizens, as the State Government may determine, but not less in number than the *ex-officio* members in the Council, to be nominated by the State Government; Members

(v) Director in-charge of Senior Citizens' Welfare (Social Welfare) in the State; Member Secretary, *ex-officio*.

(3) The State Council shall meet at least once in six months.

(4) Tenure of the members of the State Council, other than *ex-officio* members, rules of procedure of the Council and other ancillary matters shall be such as the State Government may, by order, specify.

**22. District Committee of Senior Citizens.** - (1) The State Government may by order, establish a District Committee of Senior Citizens for each District to advise in effective and co-ordinate the implementation of the Act and the rules at the district level, and to perform such other functions in relation to senior citizens at the district level, as the State Government may specify.

(2) The District Committee shall meet once every quarter.

(3) Composition of the District Committee, tenure of members (other than *ex-officio* members), rules of procedure and other ancillary matters shall be such as the state Government may, by order specify.

### Schedule

(See Rule 18)

## Norms of Physical Facilities and Operational Standards for an Old Age Home for Indigent Senior Citizens Established Under Section 19 of the Act

### I. Physical Facilities

**1. Land:** The land for the old age home should be adequate to comply with the Floor-Area Ratio (FAR) as prescribed by the relevant urban body/State Government. In the case of semi-urban/rural areas, the State Government shall provide adequate land for setting up of an old age home of requisite capacity and for essential necessities like recreation, gardening, further expansion, etc.

**2. Living Space:** The old age home shall, as far as possible, have minimum area per inmate as per the following norms:-

(i) area of bedroom/dormitory per inmate 7.5 sq. metres

(ii) living area or carpet area per inmate i.e., including (i) above plus ancillary

areas like kitchen, dining hall,  
recreation room, medical room, etc,  
but excluding verandas, corridors, etc. 12 sq. metres

**3. Facilities:** (1) The old age home shall have the following facilities: -

- (i) residential area comprising rooms/dormitories- separately for men and women;
- (ii) adequate water for drinking and ancillary purposes;
- (iii) electricity, fans and hearing arrangement for inmates (as necessary);
- (iv) kitchen-cum-store and office.
- (v) dining hall;
- (vi) adequate number of toilets and bath rooms, including toilets suitable for disabled persons;
- (vii) recreation facilities, television, newspaper and an adequate collection of books; and
- (viii) first aid, sick bay and primary health care facilities.

(2) The old age home should be barrier-free with provision of ramps and handrails, and where necessary, lifts, etc.

## **II. Operational Standards**

1. Supply of nutritious and wholesome diet as per scale to be fixed by the State Government.
2. Adequate clothing and linen for the inmates, including for the winter season.
3. Adequate arrangements for sanitation, hygiene and watch and ward/security.
4. Arrangements with the nearest Government hospital for emergency medical care and with the nearest Police Station for security requirements.

### **Form A**

[See rule 4(1)]

## **Application before the Maintenance Tribunal Under the Maintenance and Welfare of Parents and Senior Citizens Act, 2007**

1. Name and address of the Applicant/authorised person or organisation:
2. Names and address of the opposite party:
  - (i)
  - (ii)
  - (iii)
  - (iv)



3. Approximate monthly income of the opposite party:
4. Reason for making application:
5. The remedy sought for:
6. Any other particulars as may be necessary:

I, ..... the aforesaid applicant Authorised person or organisation hereby declare that the facts mentioned above are correct to the best of my knowledge and belief.

Place:

Date:

Signature:

Applicant/Authorized person or Organisation

### **Form B**

[See Rule 4(2) (b)]

### **Maintenance Tribunal under the Maintenance and Welfare of Parents and Senior Citizens Act, 2007**

#### **Acknowledgement**

Your application dated ..... has been received on ..... The same has been registered in the Register of Maintenance Claim Cases of this Tribunal as Application No..... of .....

Signature:

Authorised Officer of the Maintenance Tribunal

(Office Seal)

To,

The Applicant/Authorised person or organisation.

(Name and Address)

### **Form C**

[See Rule 6(1) and (3)]

### **Notice to Appear before the Maintenance Tribunal under the Maintenance and Welfare of Parents and Senior Citizens Act, 2007**

To

(Name of persons against whom application has been received and address).

Whereas your attendance is necessary to collect information and gather evidence to an application filed by Smt./Shri..... (copy enclosed). You are required to show

cause in writing as to why the application should not be granted within 15 days from the date of receipt of this notice. You are also hereby required to appear in person before the Tribunal on the day of..... at.....(time) in the Office of the Revenue Divisional Officer at.....(place).

Signature

Dated this.....day of.....200.....

Authorised Officer of the  
Maintenance Tribunal

*Copy to:*

(The Applicant/Authorised person or organisation)

(Name and Address)

(Office Seal)

**Form D**

[See Rule 10 (2)]

**Maintenance Tribunal under the Maintenance and Welfare of Parents and Senior Citizens Act, 2007**

Application No.....of.....20.....

*between*

Name and Address of Applicant/

Authorised person or Organisation

and

Name and Address of Opposite Party

To

The Conciliation Officer,

.....

Whereas upon the application of the above, the Applicant/and the Opposite Party has been made to appear to this Tribunal on..... and that both the parties have agreed to refer the application to your and you are hereby requested to try and work out a settlement acceptable to both the parties within a period not exceeding one month from the date of receipt of this reference. You are also requested to forward the memorandum of settlement duly signed by both the parties along with all relevant records forwarded with this reference to this Tribunal on or before the.....day of.....

Signed.....

Tribunal Date

(Office Seal)

**Form E**

[See Rule 11 (2)]

**Memorandum of Settlement by the Conciliation Officer filed before the Maintenance Tribunal**

Memorandum of settlement of.....the conciliation officer herein dated the.....day of.....

1. In pursuance of the reference I have examined the records and the statement of the objections thereby directed. A copy of my proceedings is annexed hereto in Form F and Appendix I thereto set out the witnesses examined and Appendix II the documents produced before me.

.....  
.....

Dated the.....day of.....

Signed

Conciliation Officer

**Form F**

[See Rule 11 (2)]

**Report of the Conciliation Officer filed before the Maintenance Tribunal**

In Application No.....of 20.....

between

Name and Address of Applicant/  
Authorised person or Organisation

and

Name and Address of Opposite Party

**Form G**

[See Rule 11 (3)]

**Report of the Conciliation Officer filed before the Maintenance Tribunal**

In Application No.....of 20.....

*between*

Name and Address of Applicant/  
Authorised person or Organisation

*and*

Name and Address of Opposite Party

Efforts made to bring about a settlement and the points of differences between the two parties which could not be reconciled:

.....  
.....

**Form H**

[See Rule 15]

**Appeal before the Appellate Tribunal under the Maintenance and Welfare of Parents and Senior Citizens Act, 2007**

1. Name and Address of the appellant:
2. Name and Addresses of the Respondents:
3. Name of Maintenance Tribunal that issued the order and the number and date of such order:
4. Date of receipt of the order:
5. Reason for challenging the order:
6. Whether wants stay order, if so what are the reasons thereof:
7. The remedy sought for:

I.....the aforesaid appellant, hereby declare that the facts mentioned above are true and correct to the best of my knowledge and belief. A copy of the Order of the Maintenance Tribunal is appended.

Place:

Date:

Signature:

Appellant:

**Form I**

[See Rule 16]

**Appellate Tribunal under the Maintenance and Welfare of Parents and Senior Citizens Act, 2007**

**Acknowledgement**

Your appeal dated.....has been received on.....The same has been registered in this Tribunal as Appeal No.....of.....

Signature:

Authorised Officer of the

Appellate Tribunal

(Office Seal)

To

The Appellant

(Name and Address)

**Form J**

[See Rule 17(1) and (3)]

**Notice to Appear Before the Appellate Tribunal under the Maintenance and Welfare of Parents and Senior Citizens Act, 2007**

To

(Name of Respondent)

Whereas your attendance is necessary to collect information and gather evidence to an appeal of.....(state the gist of appeal) you are hereby required to appear in person before the Appellate Tribunal on the day of.....at.....(time).....in the office of the.....(place).....

Signature:

Dated this.....day of.....20.....

*Authorised Officer of the*

*Appellate Tribunal*

*Copy to:*

The Appellant

(Office Seal)

(Name and Address)

## **Appendix III**

# **Indira Gandhi National Old Age Pension Application Form**

**സാമൂഹ്യ സുരക്ഷാ പെൻഷൻ അപേക്ഷാ ഫോം**  
**ഇന്ദിരാഗാന്ധി ദേശീയ വാർദ്ധക്യകാല പെൻഷൻ**

പെൻഷനറുടെ 6 മാസത്തിനുള്ളിൽ എടുത്ത പാസ്പോർട്ട് അളവിലുള്ള ഫോട്ടോ

<b>ഓഫീസ് ആവശ്യത്തിന് മാത്രം</b>	
അപേക്ഷാ നമ്പർ <input style="width: 150px;" type="text"/>	പെൻഷൻ കോഡ്: <input style="width: 150px;" type="text"/>
അപേക്ഷ തീയതി <input style="width: 150px;" type="text"/>	

- സ്ത്രീ     
  പുരുഷൻ     
  ട്രാൻസ്ജെൻഡർ
- പൊതു വിഭാഗം     
  പട്ടിക ജാതി     
  പട്ടിക വർഗ്ഗം     
  രേഖപ്പെടുത്തിയിട്ടില്ല

ഇംഗ്ലീഷിൽ		മലയാളത്തിൽ	
പേര്		പേര്	
C/o		C/o	
വാർഡ് നമ്പർ	വീട്ടു നമ്പർ	വാർഡിന്റെ പേര്:	
മേൽവിലാസം		മേൽവിലാസം	
പിൻകോഡ്		പോസ്റ്റോഫീസ്	
മൊബൈൽ നമ്പർ		ഇലക്ട്രൽ കാർഡ് നമ്പർ.***	
റേഷൻ കാർഡ് നമ്പർ *		#ആധാർ നമ്പർ.	
വരുമാനം :		നിലവിലുള്ള വാർഡ് മെമ്പർ/കൗൺസിലറുടെ പേര്	
വിതരണത്തിനായി തിരഞ്ഞെടുത്തിരിക്കുന്ന രീതി		(വിതരണം ബാങ്ക് വഴി ആണെങ്കിൽ മാത്രം പൂരിപ്പിക്കുക)	
		ഐ.എഫ്.എസ്.സി	
<input type="checkbox"/> ബാങ്ക് അക്കൗണ്ട്****		ബാങ്കിന്റെ പേര്	
<input type="checkbox"/> ഇഎംഐ		ബ്രാഞ്ചിന്റെ പേര്	
<input type="checkbox"/> ഡയറക്ട് ടു ഹോം		അക്കൗണ്ട് നമ്പർ	
സർവ്വീസ് പെൻഷൻ കൈപ്പറ്റുന്ന വ്യക്തിയാണോ?		<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല
ആദായ നികുതി ഒടുക്കുന്ന വ്യക്തിയാണോ? :		<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല
എംപ്ലോയീസ് പ്രോവിഡന്റ് ഫണ്ട് പെൻഷൻ കൈപ്പറ്റുന്ന വ്യക്തിയാണോ? :		<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല
സ്വന്തമായോ കുടുംബ ഉടമസ്ഥതയിലോ ഉള്ള ഭൂമിയുടെ വിസ്തീർണ്ണം :		ഏക്കർ	സെന്റ്
അപേക്ഷകൻ/അപേക്ഷക എത്ര കാലമായി കേരളത്തിൽ താമസിക്കുന്നു? (വർഷങ്ങൾ)			
അപേക്ഷകൻ(ൻ) കുടുംബം/കുടുംബം/അർബുദം എന്നിവക്കുള്ളതല്ലാതെ മറ്റേതെങ്കിലും ആനുകൂല്യം അഥവാ പെൻഷൻ കൈപ്പറ്റുന്നുണ്ടോ? <span style="float: right;"><input type="checkbox"/> ഉണ്ട്    <input type="checkbox"/> ഇല്ല</span>			
അപേക്ഷകൻ(ൻ)അഗതിയാണോ? : <span style="float: right;"><input type="checkbox"/> അതെ    <input type="checkbox"/> അല്ല</span>			
അപേക്ഷകൻ(ൻ)യാചകൻ(ൻ) ആണോ? : <span style="float: right;"><input type="checkbox"/> അതെ    <input type="checkbox"/> അല്ല</span>			

അപേക്ഷക(ൻ)അഗതിമന്ദിരത്തിലെ അന്തേവാസിയാണോ? :	<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല
അപേക്ഷക(ൻ)മറ്റാരുടെയെങ്കിലും ആശ്രിത(ൻ) ആണോ? :	<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല
**ബി പി ൽ ലിസ്റ്റിൽ ഉൾപ്പെടുന്ന അപേക്ഷക(ൻ) ആണോ?	<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല
വിവാഹിതൻ /വിവാഹിത ആണോ ?	<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല
അപേക്ഷയോടൊപ്പം ഹാജരാക്കിയ രേഖകളുടെ വിവരങ്ങൾ പ്രായം തെളിയിക്കുന്നതിനുള്ള സർട്ടിഫിക്കറ്റ്		
<input type="checkbox"/> സ്കൂൾ സർട്ടിഫിക്കറ്റ് <input type="checkbox"/> പള്ളി / ചർച്ച് രേഖ <input type="checkbox"/> ജനന സർട്ടിഫിക്കറ്റ് <input type="checkbox"/> തിരിച്ചറിയൽ കാർഡ് (ഇലക്ഷൻ കാർഡ്)*** <input type="checkbox"/> ആധാർ കാർഡ് # <input type="checkbox"/> മെഡിക്കൽ ഓഫീസർ സാക്ഷ്യപ്പെടുത്തിയ വയസ്സ് തെളിയിക്കുന്നതിനുള്ള രേഖ <input type="checkbox"/> ശാരീരിക അവശത തെളിയിക്കുന്നതിനുള്ള മെഡിക്കൽ സർട്ടിഫിക്കറ്റ്		
<input type="checkbox"/> വരുമാന സർട്ടിഫിക്കറ്റ് ഹാജരാക്കിയിട്ടുണ്ടോ?	വില്ലേജ് ഓഫീസ്:	
വരുമാന സർട്ടിഫിക്കറ്റ് നമ്പർ	സർട്ടിഫിക്കറ്റ് തീയതി :	

കുറിപ്പ്:

\* റേഷൻകാർഡിന്റെ ആദ്യത്തെ പേജിന്റെയും ഗുണഭോക്താവിന്റെ / പെൻഷനറുടെ വിശദാംശങ്ങൾ രേഖപ്പെടുത്തിയ പേജിന്റെയും ഫോട്ടോകോപ്പി ഹാജരാക്കണം.

\*\* ലഭ്യമാണെങ്കിൽ (ദാരിദ്ര്യരേഖയ്ക്ക് താഴെയുള്ളവർ മാത്രം).

\*\*\* ഇലക്ട്രൽ കാർഡിന്റെ ഇരുവശങ്ങളുടെയും ഫോട്ടോകോപ്പി ഹാജരാക്കണം

\*\*\*\* വിതരണം ബാങ്കു വഴിയാണെങ്കിൽ പാസ്ബുക്കിന്റെ ഫോട്ടോകോപ്പി ഹാജരാക്കണം

# ആധാർ കാർഡിന്റെ ഫോട്ടോകോപ്പി ഹാജരാക്കണം

വരുമാന സർട്ടിഫിക്കറ്റിന്റെ ഫോട്ടോകോപ്പി ഹാജരാക്കണം

ശാരീരിക അവശത തെളിയിക്കുന്നതിനുള്ള മെഡിക്കൽ സർട്ടിഫിക്കറ്റ് ഹാജരാക്കണം

സ്ഥലം: അപേക്ഷകന്റെ/അപേക്ഷകയുടെ ഒപ്പ്

തീയതി :



## **Appendix IV**

# **Indira Gandhi National Widow Pension Application Form**

**സാമൂഹ്യ സുരക്ഷാ പെൻഷൻ അപേക്ഷാ ഫോം**  
**ഇന്ദിരാഗാന്ധി ദേശീയ വിധവാ പെൻഷൻ**

പെൻഷനറുടെ 6  
മാസത്തിനുള്ളിൽ  
എടുത്ത  
പാസ്പോർട്ട്  
അളവിലുള്ള ഫോട്ടോ

<b>ഓഫീസ് ആവശ്യത്തിന് മാത്രം</b>	
അപേക്ഷാ നമ്പർ <input style="width: 150px;" type="text"/>	പെൻഷൻ കോഡ്: <input style="width: 150px;" type="text"/>
അപേക്ഷ തീയതി <input style="width: 150px;" type="text"/>	

പൊതു വിഭാഗം     പട്ടിക ജാതി     പട്ടിക വർഗ്ഗം     രേഖപ്പെടുത്തിയിട്ടില്ല

ഇംഗ്ലീഷിൽ		മലയാളത്തിൽ	
പേര്		പേര്	
C/o		C/o	
വാർഡ് നമ്പർ		വാർഡിന്റെ പേര്:	വീടു നമ്പർ.
മേൽവിലാസം		മേൽവിലാസം	
പിൻകോഡ്		പോസ്റ്റോഫീസ്	
മൊബൈൽ നമ്പർ		ഇലക്ട്രൽ കാർഡ് നമ്പർ.***	
റേഷൻ കാർഡ് നമ്പർ *		ആധാർ നമ്പർ.	
വരുമാനം :			
നിലവിലുള്ള വാർഡ് മെമ്പർ/കൗൺസിലറുടെ പേര്			
വിതരണത്തിനായി തിരഞ്ഞെടുത്തിരിക്കുന്ന രീതി		(വിതരണം ബാങ്ക് വഴി ആണെങ്കിൽ മാത്രം പൂരിപ്പിക്കുക)	
		ഐ.എഫ്.എസ്.സി	
<input type="checkbox"/> ബാങ്ക് അക്കൗണ്ട് ****		ബാങ്കിന്റെ പേര്	
<input type="checkbox"/> ഇഎംഒ		ബ്രാഞ്ചിന്റെ പേര്	
<input type="checkbox"/> ഡയറക്ട് ഹോം		അക്കൗണ്ട് നമ്പർ	
സർവ്വീസ് പെൻഷൻ കൈപ്പറ്റുന്ന വ്യക്തിയാണോ?	<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല	
ആദായ നികുതി ഒടുക്കുന്ന വ്യക്തിയാണോ? :	<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല	
എംപ്ലോയീസ് പ്രോവിഡന്റ് ഫണ്ട് പെൻഷൻ കൈപ്പറ്റുന്ന വ്യക്തിയാണോ? :	<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല	
സ്വന്തമായോ കുടുംബ ഉടമസ്ഥതയിലോ ഉള്ള ഭൂമിയുടെ വിസ്തീർണ്ണം :	ഏക്കർ	സെന്റ്	
അപേക്ഷക എത്ര കാലമായി കേരളത്തിൽ താമസിക്കുന്നു? (വർഷങ്ങൾ)			
അപേക്ഷക അഗതിയാണോ? :		<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല
പ്രായപൂർത്തിയായ അവിവാഹിതരായ ആൺമക്കളുടെ എണ്ണം :			
പ്രായപൂർത്തിയായ അവിവാഹിതരായ പെൺമക്കളുടെ എണ്ണം :			

മുത്ത മകന്റെ പ്രായം :	മുത്ത മകന്റെ ജനന തീയതി :
ബി പി ൽ ലിസ്റ്റിൽ ഉൾപ്പെടുന്ന അപേക്ഷക ആണോ?	
<p>അപേക്ഷയോടൊപ്പം ഹാജരാക്കിയ രേഖകളുടെ വിവരങ്ങൾ പ്രായം തെളിയിക്കുന്നതിനുള്ള സർട്ടിഫിക്കറ്റ്</p> <p><input type="checkbox"/> സ്കൂൾ സർട്ടിഫിക്കറ്റ്    <input type="checkbox"/> പള്ളി / ചർച്ച് രേഖ    <input type="checkbox"/> ജനന സർട്ടിഫിക്കറ്റ്</p> <p><input type="checkbox"/> തിരിച്ചറിയൽ കാർഡ് (ഇലക്ഷൻ കാർഡ്)***    <input type="checkbox"/> ആധാർ കാർഡ് #</p> <p><input type="checkbox"/> മെഡിക്കൽ ഓഫീസർ സാക്ഷ്യപ്പെടുത്തിയ വയസ്സ് തെളിയിക്കുന്നതിനുള്ള രേഖ</p> <p><input type="checkbox"/> ശാരീരിക അവശത തെളിയിക്കുന്നതിനുള്ള മെഡിക്കൽ സർട്ടിഫിക്കറ്റ്</p>	
മരണ സർട്ടിഫിക്കറ്റ് (ഭർത്താവിന്റെ) ഹാജരാക്കിയിട്ടുണ്ടോ? : <input type="checkbox"/>	
പുനർവിവാഹിതയല്ല എന്നു തെളിയിക്കുന്നതിനുള്ള സർട്ടിഫിക്കറ്റ് ഹാജരാക്കിയിട്ടുണ്ടോ? :	
വരുമാന സർട്ടിഫിക്കറ്റ് ഹാജരാക്കിയിട്ടുണ്ടോ? <input type="checkbox"/>	വില്ലേജ് ഓഫീസ്:
വരുമാന സർട്ടിഫിക്കറ്റ് നമ്പർ	സർട്ടിഫിക്കറ്റ് തീയതി :

കുറിപ്പ്:

\* റേഷൻ കാർഡിന്റെ ആദ്യത്തെ പേജിന്റെയും ഗുണഭോക്താവിന്റെ / പെൻഷനറുടെ വിശദാംശങ്ങൾ രേഖപ്പെടുത്തിയ പേജിന്റെയും ഫോട്ടോകോപ്പി ഹാജരാക്കണം.

\*\* ലഭ്യമാണെങ്കിൽ (ദാരിദ്ര്യരേഖയ്ക്ക് താഴെയുള്ളവർ മാത്രം).

\*\*\* ഇലക്ട്രൽ കാർഡിന്റെ ഇരുവശങ്ങളുടെയും ഫോട്ടോകോപ്പി ഹാജരാക്കണം

\*\*\*\* വിതരണം ബാങ്കു വഴിയാണെങ്കിൽ പാസ്ബുക്കിന്റെ ഫോട്ടോകോപ്പി ഹാജരാക്കണം

# ആധാർ കാർഡിന്റെ ഫോട്ടോകോപ്പി ഹാജരാക്കണം

വരുമാന സർട്ടിഫിക്കറ്റിന്റെ ഫോട്ടോകോപ്പി ഹാജരാക്കണം

സ്ഥലം:  
തീയതി :

അപേക്ഷകയുടെ ഒപ്പ്

## **Appendix V**

# **Unmarried Women Pension Application Form**

**സാമൂഹ്യ സുരക്ഷാ പെൻഷൻ അപേക്ഷാ ഫോം**  
**50 വയസ്സിനു മുകളിലുള്ള അവിവാഹിതരായ വനിതകൾക്കുള്ള പെൻഷൻ**

പെൻഷനറുടെ 6  
മാസത്തിനുള്ളിൽ  
എടുത്ത  
പാസ്പോർട്ട്  
അളവിലുള്ള  
ഫോട്ടോ

**ഓഫീസ് ആവശ്യത്തിന് മാത്രം**

അപേക്ഷാ നമ്പർ  പെൻഷൻ കോഡ്:

അപേക്ഷ തീയതി

- പൊതു വിഭാഗം     പട്ടിക ജാതി     പട്ടിക വർഗ്ഗം     രേഖപ്പെടുത്തിയിട്ടില്ല

ഇംഗ്ലീഷിൽ		മലയാളത്തിൽ	
പേര്		പേര്	
C/o		C/o	
വാർഡ് നമ്പർ	വാർഡിന്റെ പേര്:		വീടു നമ്പർ.
മേൽവിലാസം		മേൽവിലാസം	
പിൻകോഡ്		പോസ്റ്റോഫീസ്	
മൊബൈൽ നമ്പർ		ഇലക്ട്രൽ കാർഡ് നമ്പർ.***	
റേഷൻ കാർഡ് നമ്പർ *		ആധാർ നമ്പർ.	
വരുമാനം :			
നിലവിലുള്ള വാർഡ് മെമ്പർ/കൗൺസിലറുടെ പേര്			
വിതരണത്തിനായി തിരഞ്ഞെടുത്തിരിക്കുന്ന രീതി		(വിതരണം ബാങ്ക് വഴി ആണെങ്കിൽ മാത്രം പൂരിപ്പിക്കുക)	
<input type="checkbox"/> ബാങ്ക് അക്കൗണ്ട് ****		ഐ.എഫ്.എസ്.സി	
<input type="checkbox"/> ഇഎംഒ		ബാങ്കിന്റെ പേര്	
<input type="checkbox"/> ഡയറക്ട് ഫോം		ബ്രാഞ്ചിന്റെ പേര്	
		അക്കൗണ്ട് നമ്പർ	
സർവ്വീസ് പെൻഷൻ കൈപ്പറ്റുന്ന വ്യക്തിയാണോ?		<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല
ആദായ നികുതി ഒടുക്കുന്ന വ്യക്തിയാണോ? :		<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല
എംപ്ലോയീസ് പ്രോവിഡന്റ് ഫണ്ട് പെൻഷൻ കൈപ്പറ്റുന്ന വ്യക്തിയാണോ? :		<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല
സ്വന്തമായോ കുടുംബ ഉടമസ്ഥതയിലോ ഉള്ള ഭൂമിയുടെ വിസ്തീർണ്ണം :		ഏക്കർ	സെന്റർ
അപേക്ഷക എത്ര കാലമായി കേരളത്തിൽ താമസിക്കുന്നു? (വർഷങ്ങൾ)			
അപേക്ഷക അഗതിയാണോ? : <input type="checkbox"/> അതെ <input type="checkbox"/> അല്ല			
അപേക്ഷക മറ്റാരുടെയെങ്കിലും ആശ്രിതയാണോ? : <input type="checkbox"/> അതെ <input type="checkbox"/> അല്ല			

**ബി പി എൽ ലിസ്റ്റിൽ ഉൾപ്പെടുന്ന അപേക്ഷക ആണോ? <input type="checkbox"/> അതെ <input type="checkbox"/> അല്ല	
അപേക്ഷയോടൊപ്പം ഹാജരാക്കിയ രേഖകളുടെ വിവരങ്ങൾ	
പ്രായം തെളിയിക്കുന്നതിനുള്ള സർട്ടിഫിക്കറ്റ് :	
<input type="checkbox"/> സ്കൂൾ സർട്ടിഫിക്കറ്റ് <input type="checkbox"/> പള്ളി / ചർച്ച് രേഖ <input type="checkbox"/> ജനന സർട്ടിഫിക്കറ്റ് <input type="checkbox"/> തിരിച്ചറിയൽ കാർഡ് (ഇലക്ഷൻ കാർഡ്)*** <input type="checkbox"/> ആധാർ കാർഡ് # <input type="checkbox"/> മെഡിക്കൽ ഓഫീസർ സാക്ഷ്യപ്പെടുത്തിയ വയസ്സ് തെളിയിക്കുന്നതിനുള്ള രേഖ <input type="checkbox"/> ശാരീരിക അവശത തെളിയിക്കുന്നതിനുള്ള മെഡിക്കൽ സർട്ടിഫിക്കറ്റ്	
വിവാഹിതയല്ല എന്നു തെളിയിക്കുന്നതിനുള്ള സർട്ടിഫിക്കറ്റ് ഹാജരാക്കിയിട്ടുണ്ടോ? : <input type="checkbox"/>	
വരുമാന സർട്ടിഫിക്കറ്റ് ഹാജരാക്കിയിട്ടുണ്ടോ? : <input type="checkbox"/>	
വില്ലേജ് ഓഫീസ് :	വരുമാന സർട്ടിഫിക്കറ്റ് നമ്പർ :
സർട്ടിഫിക്കറ്റ് തീയതി :	

കുറിപ്പ് :

\* റേഷൻകാർഡിന്റെ ആദ്യത്തെ പേജിന്റെയും ഗുണഭോക്താവിന്റെ / പെൻഷനറുടെ വിശദാംശങ്ങൾ രേഖപ്പെടുത്തിയ പേജിന്റെയും ഫോട്ടോകോപ്പി ഹാജരാക്കണം.

\*\* ലഭ്യമാണെങ്കിൽ (ദാരിദ്ര്യരേഖയെക്കുറിച്ചുള്ളവർ മാത്രം).

\*\*\* ഇലക്ട്രിക് കാർഡിന്റെ ഇരുവശങ്ങളുടെയും ഫോട്ടോകോപ്പി ഹാജരാക്കണം

\*\*\*\* വിതരണം ബാങ്കു വഴിയാണെങ്കിൽ പാസ്ബുക്കിന്റെ ഫോട്ടോകോപ്പി ഹാജരാക്കണം

# ആധാർ കാർഡിന്റെ ഫോട്ടോകോപ്പി ഹാജരാക്കണം

വരുമാന സർട്ടിഫിക്കറ്റിന്റെ ഫോട്ടോകോപ്പി ഹാജരാക്കണം

സ്ഥലം: അപേക്ഷകയുടെ ഒപ്പ്

തീയതി :

## **Appendix VI**

# **Indira Gandhi National Disability Application Form**

**സാമൂഹ്യ സുരക്ഷാ പെൻഷൻ അപേക്ഷാ ഫോം**  
**ദേശീയ ഡിസേബിലിറ്റി പെൻഷൻ**

പെൻഷനറുടെ 6  
മാസത്തിനുള്ളിൽ  
എടുത്ത  
പാസ്പോർട്ട്  
അളവിലുള്ള  
ഫോട്ടോ

<b>ഓഫീസ് ആവശ്യത്തിന് മാത്രം</b>	
അപേക്ഷാ നമ്പർ <input style="width: 100px;" type="text"/>	പെൻഷൻ കോഡ്: <input style="width: 100px;" type="text"/>
അപേക്ഷ തീയതി <input style="width: 100px;" type="text"/>	

- |                                      |  |   |
|--------------------------------------|--|---|
| <input type="checkbox"/> സ്ത്രീ      | <input type="checkbox"/> പുരുഷൻ        | <input type="checkbox"/> ട്രാൻസ്ജെൻഡർ           |
| <input type="checkbox"/> പട്ടിക ജാതി | <input type="checkbox"/> പട്ടിക വർഗ്ഗം | <input type="checkbox"/> പൊതു വിഭാഗം            |
|                                      |  | <input type="checkbox"/> രേഖപ്പെടുത്തിയിട്ടില്ല |

ഇംഗ്ലീഷിൽ		മലയാളത്തിൽ	
പേര്		പേര്	
C/o		C/o	
വാർഡ് നമ്പർ	വാർഡിന്റെ പേര് :		വീടു നമ്പർ.
മേൽവിലാസം		മേൽവിലാസം	
പിൻകോഡ്	പോസ്റ്റോഫീസ്	മൊബൈൽ നമ്പർ	
ഇലക്ട്രൽ കാർഡ് നമ്പർ.***		റേഷൻ കാർഡ് നമ്പർ *	
ആധാർ നമ്പർ #.		വരുമാനം :	
നിലവിലുള്ള വാർഡ് മെമ്പർ/കൗൺസിലറുടെ പേര്			
വിതരണത്തിനായി തിരഞ്ഞെടുത്തിരിക്കുന്ന രീതി		(വിതരണം ബാങ്ക് വഴി ആണെങ്കിൽ മാത്രം പൂരിപ്പിക്കുക)	
		ഐ.എഫ്.എസ്.സി	
<input type="checkbox"/> ബാങ്ക് അക്കൗണ്ട്****	ബാങ്കിന്റെ പേര്		
<input type="checkbox"/> ഇഎംഒ	ബ്രാഞ്ചിന്റെ പേര്		
<input type="checkbox"/> ഡയറക്ട് ഹോം	അക്കൗണ്ട് നമ്പർ		
സർവ്വീസ് പെൻഷൻ കൈപ്പറ്റുന്ന വ്യക്തിയാണോ?		<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല
ആദായ നികുതി ഒടുക്കുന്ന വ്യക്തിയാണോ? :		<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല
എംപ്ലോയീസ് പ്രോവിഡന്റ് ഫണ്ട് പെൻഷൻ കൈപ്പറ്റുന്ന വ്യക്തിയാണോ? :		<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല
സ്വന്തമായോ കുടുംബ ഉടമസ്ഥതയിലോ ഉള്ള ഭൂമിയുടെ വിസ്തീർണ്ണം :		ഏക്കർ	സെന്റ്
അപേക്ഷകൻ/അപേക്ഷക എത്ര കാലമായി കേരളത്തിൽ താമസിക്കുന്നു? (വർഷങ്ങൾ)			

അവശതയുടെ വിവരങ്ങൾ :

ക്രമ നമ്പർ	അവശതയുടെ വിവരങ്ങൾ	മറ്റുള്ളവ	ശതമാനം
	<input type="checkbox"/> മാനസികമായ വെല്ലുവിളി <input type="checkbox"/> മറ്റുള്ളവ		



അപേക്ഷക(ൻ) കുഷ്ഠം/ക്ഷയം/അർബുദം എന്നിവക്കുള്ളതല്ലാതെ മറ്റേതെങ്കിലും ആനുകൂല്യം അഥവാ പെൻഷൻ കൈപ്പറ്റുന്നുണ്ടോ?  ഉണ്ട്  ഇല്ല

അപേക്ഷക(ൻ)അഗതിയാണോ? :	<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല
അപേക്ഷക(ൻ)യാചക(ൻ) ആണോ? :	<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല
അപേക്ഷക(ൻ)വിവാഹിത(ൻ) ആണോ? :	<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല
ഭാര്യ/ഭർത്താവ് ജീവിച്ചിരിപ്പുണ്ടോ?	<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല
പ്രായപൂർത്തിയായ അവിവാഹിതരായ ആൺമക്കളുടെ എണ്ണം :		
പ്രായപൂർത്തിയായ അവിവാഹിതരായ പെൺമക്കളുടെ എണ്ണം :		
മെഡിക്കൽ ഓഫീസറുടെ പേര് :		
മെഡിക്കൽ ഓഫീസറുടെ ഉദ്യോഗപ്പേര് :		
ആശുപത്രിയുടെ പേര് :	മേൽവിലാസം :	
പിൻകോഡ് :	പോസ്റ്റോഫീസ് :	
**ബി പി എൽ ലിസ്റ്റിൽ ഉൾപ്പെടുന്ന അപേക്ഷക(ൻ) ആണോ?	<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല
അപേക്ഷയോടൊപ്പം ഹാജരാക്കിയ രേഖകളുടെ വിവരങ്ങൾ		
ശാരീരികമായ/മാനസികമായ അവശത തെളിയിക്കുന്നതിനുള്ള മെഡിക്കൽ സർട്ടിഫിക്കറ്റ് ഹാജരാക്കിയിട്ടുണ്ടോ?: <input type="checkbox"/>		
പ്രായം തെളിയിക്കുന്നതിനുള്ള സർട്ടിഫിക്കറ്റ്		

സ്കൂൾ സർട്ടിഫിക്കറ്റ്  പള്ളി / ചർച്ച് രേഖ  ജനന സർട്ടിഫിക്കറ്റ്

- തിരിച്ചറിയൽ കാർഡ് (ഇലക്ഷൻ കാർഡ്)\*\*\*  ആധാർ കാർഡ് #
  - മെഡിക്കൽ ഓഫീസർ സാക്ഷ്യപ്പെടുത്തിയ വയസ്സ് തെളിയിക്കുന്നതിനുള്ള രേഖ
  - ശാരീരിക അവശത തെളിയിക്കുന്നതിനുള്ള മെഡിക്കൽ സർട്ടിഫിക്കറ്റ്
  - വരുമാന സർട്ടിഫിക്കറ്റ് ഹാജരാക്കിയിട്ടുണ്ടോ?  വരുമാന സർട്ടിഫിക്കറ്റ് നമ്പർ
- വില്ലേജ് ഓഫീസ് :  സർട്ടിഫിക്കറ്റ് തീയതി :

കുറിപ്പ്:

\* റേഷൻകാർഡിന്റെ ആദ്യത്തെ പേജിന്റെയും ഗുണഭോക്താവിന്റെ / പെൻഷനറുടെ വിശദാംശങ്ങൾ രേഖപ്പെടുത്തിയ പേജിന്റെയും ഫോട്ടോകോപ്പി ഹാജരാക്കണം.

\*\* ലഭ്യമാണെങ്കിൽ (ദാരിദ്ര്യരേഖയ്ക്ക് താഴെയുള്ളവർ മാത്രം).

\*\*\* ഇലക്ട്രിക് കാർഡിന്റെ ഇരുവശങ്ങളുടെയും ഫോട്ടോകോപ്പി ഹാജരാക്കണം

\*\*\*\* വിതരണം ബാങ്കു വഴിയാണെങ്കിൽ പാസ്ബുക്കിന്റെ ഫോട്ടോകോപ്പി ഹാജരാക്കണം

# ആധാർ കാർഡിന്റെ കോപ്പി ഹാജരാക്കണം.

ശാരീരികമായ/മാനസികമായ അവശത തെളിയിക്കുന്നതിനുള്ള മെഡിക്കൽ സർട്ടിഫിക്കറ്റ് ഹാജരാക്കണം  
 പ്രായം തെളിയിക്കുന്നതിനുള്ള സർട്ടിഫിക്കറ്റ് ഹാജരാക്കണം  
 വരുമാന സർട്ടിഫിക്കറ്റ് ഹാജരാക്കണം

സ്ഥലം:  
 തീയതി :

അപേക്ഷകന്റെ/അപേക്ഷകയുടെ ഒപ്പ്

## **Appendix VII**

# **Agriculture Worker Pension Application Form**

**സാമൂഹ്യ സുരക്ഷാ പെൻഷൻ അപേക്ഷാ ഫോം  
കർഷകതൊഴിലാളി പെൻഷൻ**

പെൻഷനറുടെ 6  
മാസത്തിനുള്ളിൽ  
എടുത്ത  
പാസ്‌പോർട്ട്  
അളവിലുള്ള ഫോട്ടോ

<b>ഓഫീസ് ആവശ്യത്തിന് മാത്രം</b>		
അപേക്ഷാ നമ്പർ	<input style="width:150px;" type="text"/>	പെൻഷൻ കോഡ്: <input style="width:150px;" type="text"/>
അപേക്ഷ തീയതി	<input style="width:150px;" type="text"/>	

- സ്ത്രീ                       പുരുഷൻ                       ട്രാൻസ്‌ജെൻഡർ  
 പൊതു വിഭാഗം     പട്ടിക ജാതി     പട്ടിക വർഗ്ഗം     രേഖപ്പെടുത്തിയിട്ടില്ല

ഇംഗ്ലീഷിൽ		മലയാളത്തിൽ	
പേര്		പേര്	
C/o		C/o	
വാർഡ് നമ്പർ	വീടു നമ്പർ	വാർഡിന്റെ പേര്:	
മേൽവിലാസം		മേൽവിലാസം	
പിൻകോഡ്		പോസ്റ്റോഫീസ്	
മൊബൈൽ നമ്പർ		ഇലക്ട്രിക് കാർഡ് നമ്പർ.***	
റേഷൻ കാർഡ് നമ്പർ *		#ആധാർ നമ്പർ.	
വരുമാനം :			
നിലവിലുള്ള വാർഡ് മെമ്പർ/കൗൺസിലറുടെ പേര്			
വിതരണത്തിനായി തിരഞ്ഞെടുത്തിരിക്കുന്ന രീതി		(വിതരണം ബാങ്ക് വഴി ആണെങ്കിൽ മാത്രം പൂരിപ്പിക്കുക)	
<input type="checkbox"/> ബാങ്ക് അക്കൗണ്ട് ****		ഐ.എഫ്.എസ്.സി	
<input type="checkbox"/> ഇഎംഒ		ബാങ്കിന്റെ പേര്	
<input type="checkbox"/> ഡയറക്ട് ഹോം		ബ്രാഞ്ചിന്റെ പേര്	
		അക്കൗണ്ട് നമ്പർ	
സർവ്വീസ് പെൻഷൻ കൈപ്പറ്റുന്ന വ്യക്തിയാണോ?	<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല	
ആദായ നികുതി ഒടുക്കുന്ന വ്യക്തിയാണോ? :	<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല	
എംപ്ലോയീസ് പ്രോവിഡന്റ് ഫണ്ട് പെൻഷൻ കൈപ്പറ്റുന്ന വ്യക്തിയാണോ? :	<input type="checkbox"/> അതെ	<input type="checkbox"/> അല്ല	
സ്വന്തമായോ കുടുംബ ഉടമസ്ഥതയിലോ ഉള്ള ഭൂമിയുടെ വിസ്തീർണ്ണം :	ഏക്കർ	സെന്റ്	
അപേക്ഷകൻ/അപേക്ഷക എത്ര കാലമായി കേരളത്തിൽ താമസിക്കുന്നു? (വർഷങ്ങൾ)			

ഭൂവുടമയുടെ വിവരങ്ങൾ

കർമ്മ നമ്പർ	ഭൂവുടമയുടെ പേര്	ഭൂവുടമയുടെ മേൽവിലാസം	കർഷക തൊഴിലാളി ആയി പ്രവർത്തിച്ച കാലയളവ്
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കർഷക തൊഴിലാളി ആയിരുന്ന കാലയളവ് (മൊത്തം വർഷങ്ങൾ)

കർഷക തൊഴിലാളി ക്ഷേമനിധി രജിസ്ട്രേഷൻ നമ്പർ :

\*\*ബി പി ൽ ലിസ്റ്റിൽ ഉൾപ്പെടുന്ന അപേക്ഷക(ൻ) ആണോ?  അതെ  അല്ല

വിവാഹിതൻ /വിവാഹിത ആണോ ?  അതെ  അല്ല

അപേക്ഷയോടൊപ്പം ഹാജരാക്കിയ രേഖകളുടെ വിവരങ്ങൾ

പ്രായം തെളിയിക്കുന്നതിനുള്ള സർട്ടിഫിക്കറ്റ്

- സ്കൂൾ സർട്ടിഫിക്കറ്റ്  പള്ളി / ചർച്ച് രേഖ  ജനന സർട്ടിഫിക്കറ്റ്
- തിരിച്ചറിയൽ കാർഡ് (ഇലക്ഷൻ കാർഡ്)\*\*\*  ആധാർ കാർഡ്
- മെഡിക്കൽ ഓഫീസർ സാക്ഷ്യപ്പെടുത്തിയ വയസ്സ് തെളിയിക്കുന്നതിനുള്ള രേഖ
- ശാരീരിക അവശത തെളിയിക്കുന്നതിനുള്ള മെഡിക്കൽ സർട്ടിഫിക്കറ്റ്

വരുമാന സർട്ടിഫിക്കറ്റ് ഹാജരാക്കിയിട്ടുണ്ടോ? സർട്ടിഫിക്കറ്റ് തീയതി :

വരുമാന സർട്ടിഫിക്കറ്റ് നമ്പർ വില്ലേജ് ഓഫീസ് :

കർഷക തൊഴിലാളി ക്ഷേമനിധി രജിസ്ട്രേഷൻ രേഖ ഹാജരാക്കിയിട്ടുണ്ടോ?

കർഷക തൊഴിലാളിയാണെന്ന് സാക്ഷ്യപ്പെടുത്തുന്ന സർട്ടിഫിക്കറ്റ് ഹാജരാക്കിയിട്ടുണ്ടോ?:

കുറിപ്പ്:

\* റേഷൻകാർഡിന്റെ ആദ്യത്തെ പേജിന്റെയും ഗുണഭോക്താവിന്റെ / പെൻഷനറുടെ വിശദാംശങ്ങൾ രേഖപ്പെടുത്തിയ പേജിന്റെയും ഫോട്ടോകോപ്പി ഹാജരാക്കണം.

\*\* ലഭ്യമാണെങ്കിൽ (ദാരിദ്ര്യരേഖയെടുത്താഴ്ചയുള്ളവർ മാത്രം).

\*\*\* ഇലക്ട്രിക് കാർഡിന്റെ ഇരുവശങ്ങളുടെയും ഫോട്ടോകോപ്പി ഹാജരാക്കണം

\*\*\*\* വിതരണം ബാങ്കു വഴിയാണെങ്കിൽ പാസ്ബുക്കിന്റെ ഫോട്ടോകോപ്പി ഹാജരാക്കണം

# ആധാർകാർഡിന്റെ ഫോട്ടോകോപ്പി ഹാജരാക്കണം

വരുമാന സർട്ടിഫിക്കറ്റിന്റെ ഫോട്ടോകോപ്പി ഹാജരാക്കണം

ശാരീരിക അവശത തെളിയിക്കുന്നതിനുള്ള മെഡിക്കൽ സർട്ടിഫിക്കറ്റ് ഹാജരാക്കണം

സ്ഥലം

തീയതി

അപേക്ഷകന്റെ/അപേക്ഷകയുടെ ഒപ്പ്

## **List of Publications**

1. Challenges in Indian Agriculture Sector: Need for Mission 2022-Doubling of Farmer's Income - Sathya Prakash. P and Dr. Sinitha Xavier, NIU International Journal of Human Rights (UGC CARE LISTED Journal), 2021, ISSN: 2394 – 0298, Volume 8(XIII), 133-137
2. Structural Transformation and Food Security in Kerala – Sathya Prakash. P and Dr. Sinitha Xavier, NeuroQuantology (Scopus Indexed Journal), June 2022, 20(6), 7031-7036, eISSN 1303-5150, doi: 10.14704/nq.2022.20.6. NQ22708
3. GSVA and Attainment of Self-sufficiency in Vegetables in Kerala - Sathya Prakash.P, Edited by D. Hylin Reba, 2022, 17-22, ISBN No. 978-81-947745-2-5
4. Financial Dependence of Rural Elderly in India - Sathya Prakash. P and Dr. Sinitha Xavier, Journal of Research Administration (Scopus Indexed Journal), 2024, 6(1), 178-185, ISSN:1539-1590, E-ISSN:2573-7104