



SOCIAL ENTREPRENEURSHIP: ADDRESSING THE CHALLENGES OF PROVIDING
OLD AGE HOUSING FACILITIES FOR THE AGEING POPULATION IN MAURITIUS

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Approval of the Thesis

SOCIAL ENTREPRENEURSHIP: ADDRESSING THE CHALLENGES OF PROVIDING OLD AGE HOUSING FACILITIES FOR THE AGEING POPULATION IN MAURITIUS

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Doctorate of Business Administration (DBA)

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Abstract

"SOCIAL ENTREPRENEURSHIP: ADDRESSING THE CHALLENGES OF PROVIDING OLD AGE HOUSING FACILITIES FOR THE AGEING POPULATION IN MAURITIUS"

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The number of elderly people in Mauritius is increasing significantly, signaling a substantial change in the demographic picture as a result of rising life expectancy and falling birth rates. Older people who reside in old age homes have a dedicated setting where they get assistance and their healthcare needs may be effectively met, improving their general well-being. A rise in elderly population and the change in family structure emphasizes the necessity for more old age homes. Social entrepreneurs undertake to solve certain societal problems and can provide a solution by providing old age housing facilities to senior citizens to age in comfort, safety, and dignity with medical attention, companionship, and age-appropriate activities. The conceptual framework of this study is based on social entrepreneurship and has the objective of looking into the growing market for senior housing in Mauritius, which is being driven by an ageing population and has emerged as a major national social problem.

The study uses both quantitative and qualitative techniques to meet the goals of the study. Firstly, to understand the experiences of ageing in place and older people's negotiations with changing settings in old age; and secondly, to understand access to home and community-based services as well as the experience of care provided by old age homes personnel.

Six research questions have been used as guidance to gather information regarding the impact of an ageing population in Mauritius, why do the elderly people choose old age homes and what are their expectations and challenges. Three different types of questionnaires were used to collect data from three categories of participants. Quantitative data have been analysed using the SPSS software and grounded theory used to analyse qualitative data.

Housing insecurity is a major concern for the government. The research has shed light on the issues affecting senior citizens and the facilities that social entrepreneurs should look into when providing old age homes as well as the cutting-edge training to employees to care for common old age medical conditions. In addition, social entrepreneurs should look at factors including accessibility, cost, and care quality which influence the outcomes of old age living facilities.

Declaration

I declare that this thesis, entitled “Social Entrepreneurship: Addressing the Challenges of Providing Old Age Housing Facilities for the Ageing Population in Mauritius”, has been produced completely by myself and that it has not been submitted in whole or in part, in any previous application for a degree. The work submitted is completely my own, unless indicated otherwise by reference or acknowledgement.

AI Acknowledgment

I acknowledge my use of Chat GPT (<https://chat.openai.com/>) to proofread chapters 2, 3 and chapter 4 of my thesis. Quillbot was used to generate synonyms and paraphrasing of data from primary sources. These actions were completed on 18.05.2024. The prompts used included: Proofread and correct grammar for the text below.

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Dedication

I dedicate this thesis to my beloved husband, Dr. Oomesh Shamloll, and to my beautiful daughters, namely Priyal, Tejal, Mrinal, and Shaivi who supported me throughout this journey.

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First of all, I express my gratitude to my husband, Dr Oomesh Shamloll, for his unwavering support throughout this journey and my daughters Priyal, Tejal, Mrinal and Shaivi for their tolerance and patience when I had to juggle between my responsibilities as a mother and my tasks for the DBA. They have supported me in my endeavors throughout with a lot of patience and encouragement. To My brother, Dhinesh, who deserves special recognition for his constant encouragement and confidence in my abilities. To my loving parents, Mr. Krishnadutt Seeburrun and late Mrs. Vimla Seeburrun, for their unending moral and invaluable support in shaping my career and every endeavor I have ever pursued.

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CHAPTER 1 – INTRODUCTION

Entrepreneurship denotes a set of circumstances that are favorable for the setting up of a new commercial or social venture that creates value (Corner & Ho, 2010). According to Peter Drucker (2002), the management guru, entrepreneurship is a discipline whereby innovation is the specific function through which an entrepreneur creates resources or enhances existing resources for the creation of wealth. An innovative economic organization or a network of organizations is created through the management and use of resources with the aim of making profit or for an expansion in the face of risk and uncertainty (Dollinger, 2008). By extending the theory of entrepreneurship to social activities, social entrepreneurship is undertaken and opportunities are identified for solving social problems and for the creation of social value (Corner & Ho, 2010). The traditional principles and recommendations utilized by entrepreneurs are applied to a firm that directly concerns social causes or has the objective of bringing social change through social entrepreneurship (Praszkier & Nowak, 2012).

Social entrepreneurship capitalizes on opportunities in society to foster social change and create value that satisfies social needs (Mair & Marti, 2006). The simplest way of describing social entrepreneurship is “doing business for a social cause”. In other words, social entrepreneurs undertake to solve certain societal problems through a business set for that purpose to offer a better life to people affected by those problems and the main driving force is the desire to solve such social or cultural issues (Praszkier & Nowak, 2012). Robinson (2006) says that social entrepreneurship is a uniting concept whereby social

organizations or enterprises employ business principles to innovate and achieve social goals.

Opportunity is at the heart of both commercial and social entrepreneurship but yet commercial opportunities are different from their social counterparts which are mainly focused on social issues to generate societal value by generating solutions to solve social issues (Corner & Ho, 2010). However, since social entrepreneurship opportunities exist in a community or social environment where there are institutional and social barriers, social entrepreneurs may encounter difficulties exploiting these opportunities (Robinson, 2006). According to Seda and Ismail (2020), the virtual fall of communism and the growth of capitalism, which unavoidably led to social inequities, have brought attention to the significance of social entrepreneurship on a worldwide scale as well as to its emergence and development over time. It was therefore deemed crucial for a sector to arise that would address the inequities that have long been disregarded by governments and large corporations due to their incapacity and lack of resources to address these issues as well as the fact that they do not benefit their interests.

According to Cornwill (2022), during the past three decades, there has been much development in the area of social entrepreneurship making this concept very popular. As the concept of social entrepreneurship is phenomenon-driven, there is no proper conceptual framework, and the term has been defined differently (Shane & Venkataraman, 2000), and there are different views among scholars and practitioners regarding the definition of *social*

entrepreneurship. This has led to several definitions and approaches of the concept from being a profit-making business to business to solve social problems, while others say that it is a combination of both. However, although profit is a determining factor to keep a business running, the main objective for social entrepreneurs is to effect change for the improvement and betterment of society.

For an understanding of the concept of social entrepreneurship, the term “entrepreneur” should be interpreted (Dees, 1998). Dees further describes an entrepreneur as someone who undertakes a business to shift economic resources in one form and into that of a higher productivity. In this vein, a “social enterprise” may be described as a business model combining business practices with compassion to address problems of the society leading to a balance in the economic and social behavior to create economic and social values. For social entrepreneurs and innovators looking for fresh concepts and understanding of what actually works and what does not, social entrepreneurship and innovation is a priceless resource (Gabriel & Drayton, 2016).

Just to name a few, some famous social entrepreneurs like Bill Drayton is recognized as one of the pioneering social entrepreneurs of our time as he founded “Ashoka: Innovators for the Public” in 1980, which takes a multi-faceted approach to finding and supporting social entrepreneurs globally (Gabriel & Drayton, 2016). Another famous example of social entrepreneur is Muhammad Yunus who was awarded the Nobel

Prize in 2006 for creating the Grameen Bank to empower villagers with the funding to pull themselves out of poverty (Gabriel & Drayton, 2016).

In view of the worldwide decline in welfare state and gaps in the societal safety, more social entrepreneurial opportunities have manifested leading to an increase in social entrepreneurship to fill in the gaps (Robinson, 2006). One of the most serious social issues of the twenty-first century being faced globally is population ageing (United Nations, 2019). All sectors of the society such as financial and labor markets, demand for goods and services in housing, transportation and social protection are concerned by an ageing population and have also led to a change in the ties between generations and family structures. According to the United Nations (2019), there are three main demographic factors responsible for the worldwide ageing population namely mortality, fertility, and migration. An increase in longevity, a decline in fertility and international migration causing a change in population structures are major contributors to the global ageing population. There is an increase in life expectancy as a result of advances in medical, social, and economic development over diseases. Retirees are living longer, and the number of new-borns has decreased (NIH, 2022).

The formation of social entrepreneurship in Mauritius may be linked to a number of elements and tendencies that have formed the nation's socioeconomic environment and fostered the development of social entrepreneurship in Mauritius (Meetoo, 2014). Like many other nations, Mauritius may have experienced challenges with poverty, inequality,

ageing population, environmental degradation, or access to essential services that prompted individuals and organizations to adopt creative solutions to these issues. The advent of social entrepreneurship in Mauritius has also been affected by international trends in entrepreneurship, such as the growth of impact investing and a growing emphasis on corporate social responsibility. As the idea spreads throughout the world, it might encourage people and organizations in Mauritius to adopt comparable approaches.

Like many other nations, Mauritius is dealing with an ageing population. The elderly make up a larger percentage of the population than younger generations, which is indicative of this demographic transition (United Nations Population Fund East and Southern Africa (UNFPA), 2022). It is well known that sharp drops in birth rates and correspondingly sharp rises in life expectancy have resulted in rapid shifts in the demographics of communities all across the world. According to the National Integrated Care for Older People (ICOPE) Strategic and Action Plan 2022 - 2026 (World Health Organization (WHO), 2023), the proportion of elderly people in general populations has rapidly increased in a short amount of time, and Mauritius is no exception. Over the last few decades, Mauritius' population has gradually gotten elderly. As a result, meeting the unfulfilled support and care requirements of an aging population and offering services and solutions that older people require or desire are rising to the top of the public health priority list.

The ageing population in Mauritius is caused by a number of reasons. According to the World Health Organization (Ajayi, 2023), the healthcare system and quality of life have significantly improved in Mauritius, which has increased life expectancy. Birth and fertility rates have both decreased resulting in a disproportionately greater old population. The disparity between the age groups is likely to worsen as many young adults as possible in Mauritius decide to emigrate in search of better employment and educational possibilities.

According to AARP (2019), the family structure is also gradually transforming, and the new generation is becoming more materialistic. The attitude of youngsters towards their parents has changed. In the past, it was common for parents, as senior citizens, to stay with their children and being taken care of. But nowadays, youngsters are very much engrossed with their personal lives and their duties towards their parents have become secondary. Taking care of the old parents has become a burden and it is becoming common to find seniors staying alone in their houses. Sometimes, they have to leave their houses where they have been staying for years when the insults of their children become unbearable or when they are asked to leave the house. But to stay alone is not safe, especially in cases where they need assistance, and despite being a hard decision, their place of stay should be rethought. Old age homes may be their last resort and, in many cases, the best decision (WHO, 2023). Apart from being assisted with their daily activities, they also have the company of people from more or less the same age group and also take part in some leisure and physical activities like social games, yoga, walks and so on.

With an ageing population, there is ultimately an increasing number of senior citizens experiencing declines in their personal or mental health usually caused by ageing or illness. In another decade, the demand for old age homes will double, and thousands of people will find themselves without vital support (Bulman, 2017). This irreversible phenomenon will not spare any country, including Mauritius, as this increase in ageing population is already present and will certainly have an impact on the future demand for old age homes.

Older people who do not have relatives or caregivers to take care of their needs can find protection in old age homes. Old age homes offer elderly people the medical care they need to stay healthy, provide companionship and chances for social interaction, reducing feelings of loneliness and enhancing mental health as well as a sense of security and community for those who would otherwise be vulnerable and isolated. Old age homes offer seniors balanced meals that are catered to their dietary requirements, helping to ensure that they are receiving enough nourishment. These accommodations are generally built to be safe and secure, lowering the danger of accidents, to offer residents the comforts of a home, a social community to stay active, pursue their hobbies and exchange ideas with other people. Old age homes also aid some young people with mental problems or impaired cognitive functions.

Old age housing facilities are crucial to meet the unique requirements and difficulties that older adults encounter. They boost individuals' health, safety, and social connections in addition to providing benefits for families and society as a whole. Ensuring the availability and caliber of such facilities will become more and more important as the population continues to age.

Statement of the Problem

The ageing population of Mauritius is causing demographic transitions that will likely increase the demand for aged care services, particularly old age homes. Old age homes are essential in providing housing, healthcare, and other services to elderly people who might need assistance with everyday tasks or for those who don't have family members available to help. Senior citizens get good healthcare assistance in old age homes in Mauritius, but the problem is the gap in the quality of healthcare assistance required for residents suffering from certain common diseases among senior Mauritians and the requisite specialised training that nursing and caring staff should undergo when taking care of such residents. According to a statistical survey conducted in Mauritius by the Ministry of Finance and Economic Development in 2018 (Arensberg, 2018), the population for senior citizen (above 65 years old) has increased and the young generation population has decreased. Both the total number of older persons and their share of the population are increasing. According to projections (WHO, 2023), there will be 44% more people 60 and older in 2061 than there would be in 2021 (237,195 vs. 340,541). Furthermore, over time the average life expectancy at birth has considerably grown. Male birth expectancy

increased from 59 years in 1962 to 70.3 years in 2020, while female birth expectancy increased from 62 years in 1962 to 77.2 years in 2020 (WHO, 2023). On one hand, this has led to an increase in the dependency ratio leading to a new challenge being faced by the old age industry and on the other hand, there is a change in the traditional Mauritian family structure.

The joint family structure used to be common in Mauritius whereby non-working women used to look after old age people. But according to statistics gathered by the Ministry of Finance and Economic Development (July 2018), the level of literacy among women has increased considerably, especially at tertiary level, leading to more women working. The lifestyles and family structure of Mauritians have gradually changed to nuclear family and after marriage, most people prefer to have their own privacy and opt not to stay with their parents. Furthermore, majority of youngsters who proceed overseas for higher studies do not return to Mauritius. In these situations, the old parents who require assistance are either staying alone or sent to old age homes. There is a limited number of old age homes in Mauritius, and more specifically, with limited facilities to cater to the special needs of these people and this societal trend is directly impacting on the demand for more old age homes in Mauritius. As Dees (1998) says, social entrepreneurship means “doing business for a social cause” and social enterprises in Mauritius should respond to this growing demand to solve this societal problem. The old people should be given a better life and old age homes must be properly equipped to provide medical supervision and

minor medical care and cater for their physical and medical needs as well as social and emotional needs.

Purpose of the Study, Research Aims, and Objectives

The purpose of this mixed method study is to investigate this emerging market of old age homes in Mauritius which is caused by an ageing population and has become a serious national and international social issue. But the questions that are provoked by this social phenomenon are how much old age housing facilities should be provided for the senior citizens. Noting that senior citizens are reluctant to change residence in their old age, what should be done to encourage them to move to these facilities and how to make their stay pleasant by providing for all their needs (Ball & Nanda, 2013). If supply cannot meet the growing demand for old age homes, there can be serious problems with the quality of life of older people and other implications for health care. The aim of the study is to determine the current demand and the types of old age housing facilities to be provided. The study looked into the reasons why senior Mauritians move to such facilities and medical needs required taking into consideration the most common diseases being suffered by the old people. Both the qualitative and quantitative research methods have been used for gathering data. Firstly, a quantitative approach was used to collect information face to face from the residents about the reasons they moved to old age homes, their quality of life, their satisfaction with regards to the services being offered, the difficulties they are encountering and what changes they would like to see to lead a better life. This approach is more structured in the form of surveys and quantifies the problem by way of generating

numerical data into usable statistics. This will help to make a forecast of the future demand for old age homes. Secondly, the qualitative approach was used whereby a questionnaire was used to collect data from employees working in old age homes in Mauritius.

Nature of the Study

Qualitative research is experimental research for collection of non-numeric data with the objective of having the opinions of a group of people and better understand their perception and about a specific issue (Hammarberg et al., 2016). Quantitative research, on the other hand, is a method used for generating data that can be measured regarding the behavior, views and approaches of a group of people (Hammarberg et al., 2016). For the purpose of this study, both the qualitative and quantitative research methods were used concurrently for gathering data.

Three different questionnaires were used for collection of data. Firstly, a telephone survey with structured questions was used to collect data from elderly people who have registered to get admitted into an old age home and were on the waiting lists. Secondly, a questionnaire with structured questions was set to collect quantitative data from residents of old age homes in French or creole (the local language) to allow them to express their personal views about the subject matter in their own words. Data gathered through the quantitative approach by interviewing residents was interpreted easily being in the participants' languages. Thirdly, an unstructured interview with open-ended questions was set up for employees such as nurses and care givers to enquire about the difficulties they

encounter with such residents. Once all data were collected, a thematic analysis approach was applied to identify, analyze, and find the themes within the qualitative data (reporting patterns) collected from interviews.

The process for selecting a sample for research is known as sampling (Boyd, 2019) and according to Singh (2018), there are two types of sampling namely the probability and non-probability sampling. Probability Sampling is defined as a sampling approach as it involves a random selection of samples from the larger population and it is based on probability. The prediction from such sample is more generalized as the population is fully represented and the level of bias of the researcher is reduced to produce better quality findings (Bhardwaj, 2019). According to Acharya et al. (2013), the following types of Probability Sampling are used:

- Simple random sampling.

- Systematic random sampling.

- Stratified random sampling.

- Cluster sampling.

- Multiphase sampling; &

- Multistage sampling.

In this study, both males and females were interviewed, and the sample frame consisted of elderly people who do not need assistance and those having health problems and require assistance. This study therefore used multistage sampling whereby a

combination of two or more of the probability sampling methods were used to minimise any biases and to keep a high degree of confidence.

Firstly, a selection of old age homes for the conduct of interviews was conducted through a simple random selection of old age homes. According to Bhardwaj (2019), every item in the population has an equal probability of being chosen for the sample in simple random sampling. In this research, the population comprised of the fifty-two old age homes registered in Mauritius and having the same chance to be selected to be part of the sample under study. From the sample of old age homes selected, a purposive sampling was done. As a non-probability technique, purposive sampling depends on the researcher's discretion when choosing samples.. The sample investigated is relatively small as compared to probability sampling techniques.

Secondly, a sample was selected through purposive sampling as not all residents were able to participate in the interview, such as residents with mental problems or residents who need assistance. The objective of purposive sampling was to create a sample intentionally in view of generalizing and there was no random selection of units from the whole population. In this study, a purposive sample helped to address the questions put forward for the research although the sample under study was not representative of the population. Nevertheless, in such circumstances, it is not considered as a weakness as it is a choice. The third group for the interview was a sample of caregivers and managers of old age homes selected by a simple random sampling.

Significance of the Study

The need for old age homes is rising due to a mix of factors including societal trends, healthcare demands, shifting demographics, and altered family arrangements. It is imperative that healthcare providers, communities and legislators plan and prepare for this rising demand to ensure that older people receive proper care and support in their later years. The study is significant as it is focused on improving care in old age homes, especially for residents suffering from common old age diseases by closing a gap regarding (i) the common healthcare assistance available in old age homes in Mauritius vis-à-vis the specialized high-quality care that is required; (ii) the training, expertise, compassion, and knowledge necessary to provide such care. By completing the necessary study, the body of knowledge is increased to give an insight to social entrepreneurs of the actual requirements and help them to identify obstacles when investing in this sector. Furthermore, the importance of investing in continuing education and professional development opportunities is highlighted.

Assumptions, Limitations and Delimitations

Assumptions

When conducting the study on “Social Entrepreneurship: A Panacea for the Required Home Facilities for Ageing Population in Mauritius” certain assumptions were established to guide the research and shape the scope, methodology, and conclusions of the study. The following assumptions were made for this research:

Ageing Population Trends: Mauritius is experiencing a consistent and noticeable trend of population ageing based on reliable demographic data.

Support from Government: Mauritian government is actively promoting policies and initiatives that address the housing requirements of senior citizens of the elderly and is cognizant of the challenges posed by an ageing population.

Economic Stability: the economic conditions in Mauritius are typically steady and conducive to the development of new senior living complexes.

Cultural Acceptance: the elderly population of Mauritius is responsive of relocating to specially designed housing that satisfies their needs.

Development of Infrastructure: Senior living facilities are supported by existing or planned infrastructure, including transportation, healthcare, and recreational services.

Financial Accessibility: a significant portion of the ageing population can afford senior home facilities because of support systems or financial resources.

Building housing options for the elderly that promote social engagement and community integration is a top priority.

Market need: Senior housing facilities are steadily becoming more and more necessary as Mauritius population ages.

Healthcare Facilities: These housing complexes offer the infrastructure necessary to take care of the medical demands of the ageing population.

Legal and Regulatory Framework: A clear legislative and regulatory framework governs the construction and management of senior care facilities in Mauritius.

Limitations

The expanding market in Mauritius for senior home facilities due to the ageing population is a significant and relevant area for research. As with any research, there are possible limitations that may be encountered as follows:

Untimely availability of data: the number of residents and employees were not known before the survey day. The Taro Yamane formula was used to calculate the sample.

Nonprobability sampling was used for the quantitative part of the research.

Data Trustworthiness and Accessibility: A possible constraint may be the dearth of information about Mauritius's ageing population and housing stock. All the information is verified to be true, up to date, and complete.

Access for the Participants: Reaching out to elderly people and those involved in the housing sector could be challenging. The sample's representativeness could be impacted by some people's refusal to participate.

Economic Aspects: The demand for and affordability of old age home facilities may be impacted by economic factors, such as changes in the economy and such potential effects of the economy should be considered.

Policy Revisions: The real estate market may be significantly impacted by modifications to laws and policies. Therefore, one should look out for any upcoming or current policy changes that may influence the old age housing market's dynamics.

Delimitations

When establishing the delimitations for the research, the following boundaries and limitations have been considered:

Geographic Scope: focus of the research on one or more region in Mauritius, such as whether urban, suburban, or rural regions was included in the study.

Duration: the duration of the investigation was specified and whether to capture current trends and changes, or information from previous years. To also consider how the state of the economy or potential changes to governmental regulations may impact the findings.

Age Group: in order to guarantee the research's accuracy, the exact age range of the group under research should be defined (e.g. seniors above the age of 80 did not form part of the study)

Types of Housing: only old age housing facilities such as retirement complexes, assisted living facilities, or nursing homes were considered.

Cultural and social factors: these factors have an impact on the requirement for senior housing. Mauritius being a multi-cultural country, it can be complex to consider all the cultural factors of residents. Therefore, cultural factors were limited to dietary requirements of the residents and socialisation is limited to activities organised by the old age homes.

Language: Mauritius has a bilingual environment. All sources of data and literature is done in English and the language that the participants felt most comfortable speaking was used to collect their data.

Research Questions and Research Hypotheses

In this study, on the one hand, the population of Mauritius is getting older. and on the other hand the younger generation prefer their independence and are leaving their parents on their own. Will such behavior lead to more people residing in old age homes as they grow older? Will there be enough supply by social entrepreneurs to meet the future demand? Would the elderly be in a conducive environment to meeting all their needs and help them to lead a happier life? Well to answer all these queries, this research used primarily the following research questions to achieve its objectives:

The research questions put forward for this study are as follows:

RQ₁ - What is the impact of old age housing facilities on ageing population in Mauritius?

RQ₂ - What are the effect of relative supports on old age homes in Mauritius?

RQ₃ - What are effect of the current facilities provided in existing old age housing facilities in Mauritius?

RQ₄ - What are the challenges faced by residents and employees of old age homes?

RQ₅ - What other facilities should be provided in old age houses to cater for residents suffering from common diseases among seniors in Mauritius?

RQ₆ - What special training is required by caring staff to improve the quality of care given to old people suffering from chronic diseases?

The null (H_0) hypotheses are as follows:

H_{01} - There is no impact of old age housing facilities on ageing population in Mauritius

H_{02} - There is no effect of relatives support on old age home in Mauritius people.

H_{03} - There is no effect of facilities provided on old age homes facilities in Mauritius

H_{04} - The quality of life of residents cannot be improved by the quality of service in old age homes.

H_{05} – Old people suffering from certain diseases do not get special facilities in old age homes.

H_{06} – Staff do not need specialized training to be updated with new therapies to assist elderly people.

CHAPTER 2 – LITERATURE REVIEW

Preamble

The principal objective of this chapter is to examine literature on the concepts of entrepreneurship and social entrepreneurship by laying emphasis on studies and articles published in important academic journals that cover the subject matter. To comprehend the terminologies and how they have evolved throughout time, I read through the literature. Entrepreneurship involves the start new business organizations or mature organizations being revitalized in response of new opportunities being identified in the market (Broccia et al., 2022) and as defined by Schumpeter (1965), “entrepreneurs are individuals who exploit market opportunity through technical and/or organizational innovation”. Entrepreneurship is a discipline involving innovation in specific field whereby entrepreneurs create new products and services and has existed even before the introduction of money when the barter system was prevailing (Hébert & Link, 2009). Since the eighteenth century, the term entrepreneurship was introduced and since then many schools of thought have brought up different definitions of entrepreneurship (Jonsson, 2017). Entrepreneurship has evolved much from a simple creation to a more complex perception. The theory of entrepreneurship has been extended to social activities, giving rise to the concept of social entrepreneurship through which opportunities to address social issues are found and unmet needs to give needy people a better life while creating social value. Many scholars have attempted to define social entrepreneurship, but all attempts have remained scant. There is no generalised definition for social entrepreneurship which makes the distinction with other phenomena more difficult. Both commercial and social

entrepreneurships look for opportunities, but the opportunities sought by both types of entrepreneurships are different. A contrast is made between social and commercial entrepreneurship.

I read up on social entrepreneurship and its applications to global social problems to present the idea of business as a vehicle for good global change. To provide readers with a more complex knowledge of social entrepreneurship, I also covered subjects that have been written about in regard to social entrepreneurs, like goals and competencies.. This helped to shed light on social entrepreneurs' abilities, attitudes, and actions. The personality of a person plays an important role to mould the person's perception in a business venture as different people behave differently in similar situations due to the different personality traits. Personality traits of social entrepreneurs are demarcated in such a way that they foresee societal problems and perform in risky situations with limited resources. Social entrepreneurs deal with challenges of society and are faced with many challenges.

To have a deeper comprehension of what drives social entrepreneurship and what is needed to facilitate it, I then dissected the goals of social entrepreneurs and the most often mentioned competencies. They have the capability to identify opportunities by using innovative methods and discover novel ways to address societal issues and achieve benefits. Social entrepreneurship depends either on support from stakeholders or on the profit-making goals when conducting social activities, just as a tool to survive and realise the goals of the social venture and not for their benefits. However, for social

entrepreneurship to be successful, there are some critical success factors to be followed to set the objectives, shape strategies, make decisions, and to measure the results. Such success factors are specific to a business area and should be implemented successfully to meet the strategic objectives and generate positive outcomes for value-added to the business. The world is experiencing a worldwide phenomenon of an ageing population which is forecasted to double by the year 2050.

In view of improvement in medical facilities and the decrease in fertility rate, an ageing population is inevitable leading to more commitments for governments to come up with innovative policies to handle the needs and interests of senior citizens. An ageing population is global and is a matter of concern for society as there is an increase in the demand for healthcare as well as residential care. Social isolation and loneliness are two social determinants of health that are very often disregarded, which affect older people's longevity, quality of life, and physical and mental health. These negative effects of ageing in loneliness and isolation are unpacked and the strategies used under social entrepreneurship to answer the problems of ageing in solitude and the social concerns brought on by an ageing population are addressed. Among others, social entrepreneurs provide old age or residential care homes to senior citizens to ensure their needs and health are well taken care of.

The following keywords were used to search articles: *social entrepreneurship*, *social entrepreneur*, *social enterprise*, *entrepreneurship*, *commercial entrepreneurship*,

comparison between commercial and social entrepreneurs, personality traits of entrepreneurs, critical success factors of entrepreneurship, ageing population, old age homes, ageing in isolation, social isolation and loneliness were used to search and identify relevant articles and books from the UNICAF online library and by using Firefox search engine. In-depth publications for the literature review were found through a search utilizing a combination of these keywords.

Conceptual Framework

“Entrepreneur” is a word that originates from the French verb “entreprendre” which means “to undertake” and in the sixteenth century, it was used to refer to a person undertaking a commercial venture (Mehmood et al., 2019). The use of the word was further popularized by several economists throughout the seventeenth and eighteenth centuries to refer to the role of entrepreneurs to move resources in productive areas and create value by assuming the management and risk of a business (Jarvis, 2016). At the start of the 20th century, Joseph Alois Schumpeter (1883–1951), a key figure in the history of entrepreneurship, developed a fundamental theory or model of entrepreneurship and is credited with advancing the field (O’Boyle, 2017). Schumpeter and Kirzner further revisited and refined the definition of entrepreneurship in the twentieth century (Sobel, 2020). Schumpeter pointed out that an entrepreneur innovates and uses a disruptive force in the economy to introduce new goods and production techniques in order to bring about economic changes. while Kirzner defines entrepreneurship as a process to discover new

profit opportunities in the market until such opportunity is eliminated by competition through an equilibrating force (Mehmood et al., 2019; Sobel, 2020).

Schumpeter's theory/model of entrepreneurship still has considerable interest today, more than a century after its initial development. It forms the foundation for later theories of entrepreneurship, which emphasise entrepreneurship as a range of commercial tasks, such as organising finance, producing, planning, and so on (Mehmood et al., 2019). In brief, entrepreneurs are people who innovate, identify, and create new business opportunities with the aim of extracting profits (Dollinger, 2008; Jarvis, 2016). However, social entrepreneurship goes one step further whereby entrepreneurs are engaged in a business venture and look for the benefits to improve problems in society. Instead of only aiming for and seeking wealth or economic worth, social economy seeks to promote or establish social values that will improve social status and credit of the community (Sekliuckiene & Kisielius, 2015).

Social entrepreneurship is the creation and creation of solutions by entrepreneurs to solve societal, environmental, and cultural problems of society such as health care, poverty alleviation, and community development (Gupta et al., 2020). For both businesses and researchers, social entrepreneurship has grown to become a crucial topic of research. Numerous firms are motivated to operate with an ingrained social motive because of numerous challenges including poverty and human wellbeing (Gupta et al., 2020).

Social entrepreneurs use the same practices as traditional entrepreneurship, but the end-goal is generating social value (Chatterjee et al., 2021). Social entrepreneurs do not anticipate receiving a direct financial advantage from their social businesses, which acts as a stimulant for societal transformation (Barberá-Tomás et al., 2019). This phenomenon is growing rapidly as social entrepreneurs are force for change to attract people with brilliant ideas that can improve people's lives through development of new goods and services. Well before the concept of social entrepreneurship emerged, the phenomenon was there as problems in society existed and people were prone to conduct activities to solve these problems. According to Gabriel and Drayton (2016), some famous examples of social entrepreneurs are Professor Muhammad Yunus and Bill Drayton. In 1976, Professor Muhammad Yunus, the Nobel Peace Prize laureate, established the Grameen Bank activities, in view of eradicating poverty and empowerment of women in Bangladesh followed by Bill Drayton who worked for the foundation of global efforts of Ashoka for provision of seed funding to entrepreneurs having a social vision.

Since its emergence in the 1980's, the concept of social entrepreneurship has fascinated people, attracted many sectors and is growing rapidly due to the social changes occurring to improve the lives of people (Gupta et al., 2020). Several definitions of "social entrepreneurship" have been proposed by academics and the definition is still unclear (Martin & Osberg, 2007). Social entrepreneurship is like an umbrella that fits under a broad variety of activities for the benefit of society and holds high promises. A clear definition is needed to determine the activities that should be under the umbrella. According to Dees

(1998), social entrepreneurship struck when social sector institutions were ineffective, inefficient, and unresponsive to social problems and he believed that social entrepreneurs are the change agents for problems in the society as they adopt the goal of generating social value, develop and engage in new ways to serve society.

In the past few decades, social entrepreneurship is becoming more and more popular as a result of growing social issues and concerns which is an important tool used to deal with such problems that are not addressed, at least fully, by the public sector. For effective social and economic development of any country, society should be made stable through using techniques for social innovation, like social entrepreneurship (Sekliuckiene & Kisielius, 2015).

Social entrepreneurs take the initiative to attend to social problems and make changes to create value for the groups of people affected (Sekliuckiene & Kisielius, 2015). These changes are made by non-profit organizations in a highly competitive market due to tight funding from donors and grants versus the increasing needs of the target community. Recently, commercial service providers are attracted in this market and in order to maintain competitive advantage, the traditional non-profit organizations providers are forced to deliver superior and more competitive services in line with government policy, thus changing the non-profit organization and government relationship (Mort et al., 2003). Social entrepreneurship is beneficial as it increases revenues, profitability, employment

level and good business image for stakeholders and lessens the social marginalisation of some societal groups (Sekliuckiene & Kisielius, 2015).

Despite the global momentum gained by the social entrepreneurship phenomenon, the theory is in the conceptualization stage and complex as it covers different specifics in different countries and are influenced by different factors such as challenges, opportunities, environment, success stories and trajectories of other social entrepreneurship initiatives (Gupta et al., 2020). This has led to multiple and fragmented definitions being developed by scholars. Nonetheless, because social entrepreneurship usually seeks to address a societal issue, one significant feature of this approach is that it offers some stability in society.

The governmental, commercial, and civil society players are becoming increasingly intertwined, and their actions are influencing the emergence of a range of economic entities with socially responsible goals (Dragusin et al., 2015) and establishment of a distinguishing line between them is getting more and more challenging. Relationships that emerge among these sectors show how social purpose and entrepreneurship are related. The formation of the social entrepreneurship framework in this context results from the combination of an entrepreneurially oriented behavior and the pursuit of a social purpose within an entrepreneurial endeavor (Dragusin et al., 2015). The favorable perception of social entrepreneurship is serving as a useful motivator for the growth of social businesses.

There are different areas for social entrepreneurship such as alleviation of poverty, improvement of the environment, care for child abuse, orphanage, old age homes, and non-profit organizations for different types of health issues, just to name a few. For this study's purposes, the area of research chosen for social entrepreneurship is old age homes and the aim is to analyse the experience of senior citizens residing in old age homes in Mauritius to build a framework for this group of targeted people. A rise in ageing population has various consequences on society, including the provision of appropriate care and assistance to senior citizens. Ageing societies have become a big challenge globally requiring an increase in the provision of old age homes which require intensive knowledge and services (Klimczuk, 2022). Although this service has been in existence for quite long now, it is gaining popularity worldwide and is an emerging market for social entrepreneurs to exploit in Mauritius. However, the quality of their performance and adequacy of resources provided in these facilities is of great concern and such institutions should provide setups and structures according to the demands of the specific society.

Schumpeter's viewpoint promotes viewing the difficulties in providing care for the elderly as chances for innovation, where original ideas not only address societal issues but also produce financial gains. According to Schumpeter's theory, innovation is what propels entrepreneurship, as business owners combine resources in novel ways to meet unmet demands. The following are some direct applications of this theory to Mauritius's aged care prospects and challenges:

New approaches to service delivery – to address the lack of technological integration and personalization tech-enabled solutions may be launched such as telemedicine platforms or wearable health monitors that offer seniors specialized assistance, entrepreneurs can innovate. Social entrepreneurs, motivated by Schumpeter, might create hybrid care systems that blend conventional caregiving with cutting-edge techniques like rem

Creation of Markets:

Market creation - Mauritius's aging population opens up new markets for goods and services like senior-friendly leisure activities and home remodeling services. Entrepreneurs can recognize markets that cater to particular requirements, such as mobility aids or dementia care.

Resolving Structural Issues - by implementing community-driven care projects or public-private partnerships, entrepreneurs may challenge established systems and get around the government's inadequate infrastructure and resources for senior care.

The conceptual framework proposed is to assess the services for old age homes being provided by social entrepreneurs and their performances while assuming the social responsibilities in line with a monitoring system in place. This study intends to investigate the shortfalls at the old age homes and how these can be improved to ensure adequate and elevated services for the senior citizens. Just providing the amenities and services according to the norms put in place by the Government are not sufficient. Provision of services should be adapted to the needs of the residents in homes and should be controlled by the monitoring system, through a public-private collaboration, thus holding both the

policy makers and social entrepreneurs responsible to ensure good services are provided the elderly.

The hypotheses for the study are as follows:

H₀₁ - There is no impact of old age housing facilities on ageing population in Mauritius

H₀₂ - There is no effect of relatives support on old age home in Mauritius people.

H₀₃ - There is no effect of facilities provided on old age homes facilities in Mauritius

H₀₄ - The quality of life of residents cannot be improved by the quality of service in old age homes.

H₀₅ – Old people suffering from certain diseases do not get special facilities in old age homes.

H₀₆ – Staff do not need specialized training to be updated with new therapies to assist elderly people.

Data were collected using qualitative and quantitative research methods concurrently. A thematic approach was used to identify, analyze, and find the themes within the qualitative data (reporting patterns) collected from interviews. A more structured approach was then used to collect quantitative data to produce numerical data that can be converted into useful statistics in order to quantify the issue. This helped to make a forecast of the future demand for old age homes.

Entrepreneurship – The Evolution

Research suggests that the success of entrepreneurship depends on several factors and sometimes even with experience, good technical skills, innovative ideas and determination, some entrepreneurs fail to have a successful venture (Baron, 2012). This section reviews theory related to the study in the areas of entrepreneurship, its evolution over the years, the multiple definitions of theorists, the success factors of entrepreneurs, characteristics of entrepreneurs and the factors that motivate them.

The process of creating new businesses and bearing all risks involved is known as entrepreneurship and entrepreneurs are seen as innovators in the marketplace with new goods, services, and ideas (Hayes, 2021). Well before the introduction of money and corporate businesses in early civilizations, entrepreneurship existed in different forms in society for the survival of humankind. The economy was functioning through exchange and the bartering system used for centuries to trade goods and services (Hébert & Link, 2009).

The marketplace is dynamic and constantly offering opportunities for new businesses. Entrepreneurs are people who recognize such opportunities and are ready to make the changes happen (Frederick et al., 2019). Entrepreneurship involves risks when launching new products and services. When it is successful, it gets profits, fame, and more opportunities for business growth but when it fails, entrepreneurship incur losses and is

less prevalent in the market (Mehmood et al., 2019). For good development of entrepreneurship, entrepreneurs should have various personalities to be able to anticipate the needs of the market and take the initiative to bring new ideas and goods to meet such needs with the necessary skills required.

Entrepreneurship as a philosophy has been underestimated for a long time and was developed between the twelfth and fifteenth centuries with government officials, lords, craftsmen, pirates and traders as entrepreneurs (Frederick et al., 2019). However, literature on entrepreneurship indicates that the term “entrepreneur” in the business world was introduced in the eighteenth century without a unified theoretical framework which led several different definitions by different schools of thought just ignoring the work done by each other (Jonsson, 2017). The French term "entrepreneur" is the source of the word “*entreprendre*” which means to undertake. The entrepreneur is the undertaker who seizes business opportunities together with the risks involved and develops them by adding effort, money, time or skills before launching the products or services in the competitive marketplace. Entrepreneurs operate within an institutional framework and yield to entrepreneurial efforts (Hébert & Link, 2009).

The first economist to have acknowledged an entrepreneur as an important economic factor was Richard Cantillon who defined entrepreneurship as any kind of self-employment where the entrepreneur bears uncertainty (Praag, 1999). In the early 19th century, to expand on the literal translation of the French word “entrepreneur”, the French economist, Jean Baptiste Say, described the entrepreneur as a risk-taker shifting economic

resources from areas of low to high productivity with greater yield and undertakes to create value (Martin & Osberg, 2007). The entrepreneur is seen as a catalyst for economic changes and development. During the nineteenth and twentieth centuries, several theorists came up with definitions of entrepreneurship and a few of the most common theories advanced by scholars will be discussed below.

As mentioned, Joseph Alois Schumpeter was the most famous entrepreneurship theorist who built up on the basic concept of value creation based on commercial opportunity and innovation whereby the entrepreneur has the force for propelling economic development through creative destruction (Martin & Osberg, 2007). That is, by destroying the old and creating new economic value through innovation or transformation of the existing economic system. Furthermore, Schumpeter believed that the driving factor in the capitalist mode of production was profit realised in terms of performance innovation, new position acquired in the market, and innovative results to improve economic activity. According to Schumpeter, entrepreneurs are the ones who can manage the business to decide upon application of new methods for production bringing about abrupt changes while undermining the prevailing economic balance (Perlman, 2003). In brief, Schumpeter sees the entrepreneur as someone who innovates and implements changes within the market by implementing new combinations in different forms such as new goods, new manufacturing techniques, entering new markets, forming new businesses, or starting new industries and the quest for new source of materials and source of supply (Prince et al., 2021).

Kirzner's theory of entrepreneurship was close to the thesis of Schumpeter. He believed that the entrepreneur identifies market opportunities and acts upon them. Furthermore, he was of the view that rapid adaptation and responsiveness to business opportunities is crucial in entrepreneurship and not all entrepreneurs are equally capable to spot such opportunities (Caldwell & Boehm, 1992). The ability to perceive occasions and unexploited profits rests with most capable entrepreneurs who will seize the opportunity not noticed by others (Mehmood et al., 2019). Contrary to what Schumpeter believed; Kirzner's theory says that entrepreneurship is a business activity that should maintain economic balance with introduction of new products (Caldwell & Boehm, 1992).

While Schumpeter projected the entrepreneur as an agent of change, Peter Drucker did not share the same view (Martin & Osberg, 2007). Drucker believed that entrepreneurs are not themselves the agents for change, but they are rather alert and committed to search for changes and seize the opportunity to exploit them. Schultz was the first theorist to claim that there was no "born entrepreneur" and entrepreneurship could be learned (Iversen et al., 2008). Schultz is regarded as the father of the "human capital" theory, and he believed that entrepreneurs have the capacity to reallocate materials needed for the creation of profit in different entrepreneurial activities such as economic, political, and even social (Ross, 2023).

Entrepreneurship has significantly changed over the last few decades and has witnessed an increased overlap with research on strategy and innovation (Ahmetoglu et al., 2017). Entrepreneurship is the main engine and drive behind the economy for rapid expansion and its main functions are as follows:

to provide new value for money choice alternatives.

to improve the market offerings to increase efficiency and/or effectiveness.

upon success, to attract new entrants to the market to increase competition and improve efficiency and effectiveness.

Based on the theoretical approaches explained above, we can say that the main characteristics of entrepreneurs include proactivity, creativity, persistence, autonomy, self-confidence, strength and confidence to succeed. According to Deakins (2013), the attributes required for an entrepreneur to succeed are being innovative and remain alerted to new opportunities, to strongly believe in the new product, to embrace uncertainty and take calculated risks, to be determined to overcome problems, and to accept mistakes and learn from them. Over the years, the nature of entrepreneurship has changed from a simple creation to a more complex perception and some of the theoretical approaches to entrepreneurship have been elucidated so that the traits of entrepreneurs may be considered and attributed in the context of social entrepreneurship (Boutillier & Uzunidis, 2014).

Entrepreneurs are self-made and very often when building their business, they face obstacles and challenges such as overcoming bureaucracy, obtaining finance from financial

institutions, and hiring talent (Hayes, 2021). There are no proper guidelines to define the path to entrepreneurship, unlike traditional professions, and the path of one successful entrepreneurship might not work for another one. However, Hayes (2021) says that most successful entrepreneurs have to follow the steps below:

To start the business with an adequate cash supply to ensure ongoing funding and ensure financial stability.

Once financially stable, the entrepreneur should build a set of diverse skills to be used in practical situations.

To be familiarised with the surrounding environment to get a fresh perspective and the use multiple channels such as books, lectures, articles and podcasts to consume content.

Through the use of multiple channels for consumption of content, an aspiring entrepreneur can easily identify a problem and solve it.

To introduce a problem-solving solution that adds value to the problem.

To make maximum use of networking, email and conferences to meet the right people in the industry such as financiers and suppliers.

To be a good leader who works hard to inspire and motivate the employees to tap their potential and lead the entrepreneurship to success. Good examples are Microsoft led by Bill Gates and Apple led by Steve Jobs.

The majority of small firms collapse within four years of their launch because in general, newest entrepreneurs are attracted by the rewards and cannot forecast the risks

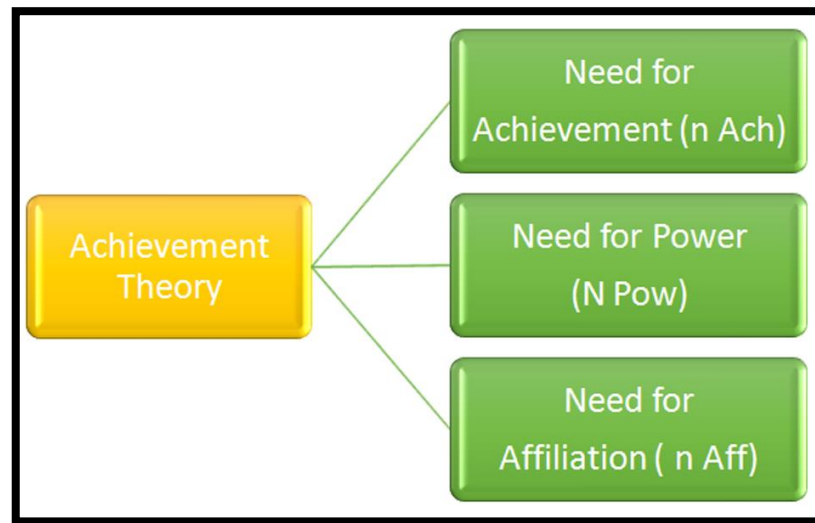
involved (Patel, 2021). The traits of the businessperson determine whether an entrepreneur is successful such as values, personality and attitudes which are in turn shaped by his creativity, ability, courage, and training (Martin & Osberg, 2007). Running a business is stressful and requires hard work. The entrepreneur, being his or her own boss should be inspired to work long hours and think outside the box to make the business successful. The entrepreneur should be creative and innovative to come up with ideas to provide new or improvement in goods and services (Littunen, 2000). Innovative means possessing a solution-oriented mindset essential for entrepreneurs especially in a dynamic environment and convince the clients to accept them (Littunen, 2000). Very often, such abilities are attained with training and experience. The entrepreneur should also have the will to act which flows from the training received and personnel working under his guidance.

In addition to innovativeness, Casson (1982) mentions that typical characteristics of successful entrepreneurs include risks taking, knowledge about manufacturing and functioning of the market, the ability to co-operate, business management and marketing skills while Caird (1988) says that it should be possible for an entrepreneur to recognise business prospects, have the willingness to take risks, be able to rectify errors and seize profitable occasions. According to McClelland Needs Theory, individuals having strong needs are motivated to solve problems, set targets, and succeed better than others (Littunen, 2000). In general, it is found that most scholars believe that the wish to demonstrate their skills and succeed are the main characteristics of entrepreneurs called entrepreneurial motivation. Through entrepreneurial motivation, an ordinary individual is transformed into

a powerful businessman by identifying the strengths in the internal environment and creating opportunities externally to maximise wealth, run the business and develop economically while facing risks and threats effectively (Murnieks et al., 2019).

Human motivation is an important factor in the entrepreneurial process as people act to seize opportunities and fulfil higher needs to become successful entrepreneurs (Collins et al., 2004). However, the desire and ability to act on opportunities differ depending on the needs and behavior of individuals which vary and not every individual can transpose a new business idea into a functional venture. According to Wood and Vilkinas (2004), the entrepreneurial spirit is the most important factor for a business to succeed which pushes the entrepreneur to strive toward achieving the objectives and triggers a series of reaction in the mind of the entrepreneur. This can be best explained by using the McClelland's Needs Theory which highlights three motivational drivers namely the need for achievement, the need for power and the need for affiliation (Kurt, 2021).

Figure 2. 1
Mc Clelland Needs Theory



Source: Adapted from *The achieving society*, by McClelland, 1961

According to McClelland Needs Theory (Kurt, 2021; Osemeke & Adegboyega, 2017), every person has all three needs or motivating factors irrespective of age, gender, culture and race but the degree by which their behaviors are motivated by the various needs differ. There is a dominant motivator that maintains the characteristics of the entrepreneur, and this is largely dependent on life and cultural experiences. The different needs of individuals motivate them to face risks and have a more proactive attitude to identify business opportunities and formulate strategies effectively. But once more, the dominant motivational factors regarding achievement, affiliation and power are not same for all entrepreneurs (McClelland, 1961).

The need for achievement is not satisfied with success but with the drive to excel (Kurt, 2021; Osemeke & Adegboyega, 2017). In other words, the need for achievement is more directed towards competition and with the process of conducting the work to a

successful completion. There is better performance among people with high need for achievement than those with moderate or low need for achievement and the following three characteristics for high need achievers have been identified (Baptista et al., 2021):

A strong willingness to assume responsibility and perform tasks to find solutions to problems.

Goals are moderately difficult and risks for tasks are calculated.

Feedback is required on their performances.

The need for power is about the willingness to make an impact and influence others to change them to make a difference in their lives (Kurt, 2021; Osemeke & Adegboyega, 2017). Those who have a high need for power are persuasive speakers and like to have control over the situation. The behaviours are forcefulness, out-spookiness, and ready to have confrontation to maintain their original position. They are characterised by the following:

Influential and like to direct others.

To have control over others.

Concerned about leader-follower relations.

The desire to have friendly relations with other people is known as the need for affiliation (Kurt, 2021; Osemeke & Adegboyega, 2017). There is a need to interact with other people, have a harmonious relationship and be accepted by others. The characteristics of people with high need for affiliation are as follows:

They want to be accepted and approved by others.

They agree with the views of people they value much.

They value others and give feelings to them.

According to McClelland's concept, human motivation is primarily driven by three factors: the need for power, affiliation, and achievement. A strong urge for achievement, which is typified by a desire to solve issues, create objectives, and accomplish significant results, is what motivates entrepreneurs. Applying the McClelland Needs Theory to the elderly care in Mauritius gives the following:

Needs for achievement - the opportunity to have quantifiable effects, including raising senior citizens' quality of life or making care more accessible, is what drives social entrepreneurs in Mauritius to address the country's problems with elder care. Metrics such as higher life expectancy, fewer hospitalizations, or satisfaction levels might be used as standards for success.

Need for affiliation - working together with communities, families, and healthcare providers is frequently necessary to deliver elder care services. Building these connections, encouraging community trust, and developing inclusive care ecosystems may be areas in which entrepreneurs with an intense desire for affiliation thrive.

Need for power - through their influence, entrepreneurs can push for legislative changes that would boost government funding for senior care or encourage private

sector investment in senior services. This is consistent with their innate drive to lead the industry and bring about systemic change.

Similarities and differences between social enterprise, social entrepreneurship, and social economy

Similar to social business, there is currently no consensus definition of the concept of social enterprise due to the fact that social enterprises take on a wide range of organisational forms and have many different meanings worldwide (Hayes, 2021). A social enterprise is a self-sufficient organisation that carries out a social objective and is managed according to entrepreneurial principles (Dragusin et al., 2015). A social enterprise's primary goal is often to use market economy methods to create significant change in local, regional, or national communities in support of its social mission. When launching a social enterprise, an entrepreneur must overcome both the typical obstacles faced by all entrepreneurs and those that arise from the social aspect of their business (Ahmetoglu et al., 2017). As a result, many organisations that are pursuing a social mission also use the entrepreneurial model, nevertheless there are typically big differences in terms of leadership style, core beliefs, member participation in decision-making, and so on. Regarding profit orientation, social businesses either steer their efforts in a non-profit direction or have very little interest in making a profit.

Traditionally non-profit organisations are defined by their sole social goal; on the other hand, traditionally commercial enterprises are focused only on the economy. This is where the social type of enterprise falls in between (Dragusin et al., 2015). The social

enterprise is pursuing its socio-economic objective by offering creative and long-lasting solutions to social problems and engaging in business ventures to achieve financial independence. The economic benefits usually go back into the economy to address other social problems. The management of social companies take on the task of achieving self-sustainability by adopting an entrepreneurial mindset.

Pylons of the social economy are principles and values based around "solidarity, the superiority of human beings over assets, and constitutional and participative governance." The term "social economy" refers to all business ventures that seek to be both viable economically and driven by a compelling social purpose (Eurofound, 2022). This encompasses a wide range of organizations, such as social business entities, cooperative societies, associations, foundations, and charitable organizations. Entities that encourage the social economy usually strive toward safeguarding the environment and providing the population and its inhabitants with commodities and amenities, including jobs. Businesses in the social economy strive to make money for parties other than shareholders or investors. The term "social economy" can also refer to a wider range of group projects with a social focus that fall in between the boundaries of the public and private sectors (European Commission, 2013). Operationally, the social economy aims to make money in order to support local residents' social causes. Among the primary forms of organisations established in the social economy are cooperatives, associations, mutual funds, associations, and foundations (European Commission, 2013).

Considering all of the above-mentioned factors, social entrepreneurship is seen as an important method within the social economy, defined as any entrepreneurial endeavor focused on addressing a social need. Legally speaking, this can be a collection of entrepreneurs, a social enterprise, or an organisation headed by a social entrepreneur (Eurofound, 2022). The individual who creates a social enterprise with a workable business plan only to address a social issue and is personally invested in and sensitive to the business is known as a social entrepreneur. Like any other entrepreneur, the social entrepreneur has an entrepreneurial mindset and is always on the lookout for new chances and prepared to seize them in order to advance the company and long-term goals. The social entrepreneur drives social change and is an innovator (Mehmood et al., 2019). However, an absence of consistent regulations may hinder the growth of the social economy, therefore, a robust ecosystem of social enterprises should be developed to make it easier for social enterprises to obtain the resources they require (European Commission, 2013).

Defining and Analysing the Concept of Social Entrepreneurship

Growth of the business sector is mostly being propelled by entrepreneurship as a driving force but nevertheless, existing markets and commercial institutions have not always been successful in meeting certain specific needs of society (Gupta et al., 2020.). This has prompted certain people or groups of people to intervene to act and is now referred to as social entrepreneurship. Social entrepreneurship involves the recognition of problems in society and the use of entrepreneurial principles to bring changes in society in order to improve the situation (Sepulveda, 2015). Social entrepreneurship is a broad term used to

represent remedies for issues in societies and economies, failures encountered by existing national social welfare programs, models to bring social change and political transformation, and used as a platform for new business opportunities and hybrid partnerships (Wu et al., 2020). Very often, social entrepreneurship deals with one particular social problem at a time by inspiring innovative approaches to address the problem, without necessarily eliminating it, but creates more value for the people (Alter, 2007). They are seen as individuals or organizations using business logic in an entrepreneurial manner to solve the problems of a group of people who cannot improve their situations themselves and are somehow marginalized or neglected in society (Saebi et al., 2019).

Social entrepreneurship and innovation seek out creative cost-effective solutions to certain societal issues (Tanimoto, 2008). There are now more people than ever striving to find answers to the most important social and environmental problems in the world thanks to the growth of the internet and the widespread use of mobile devices (Gupta et al., 2020). The stories of early-stage, frequently unintentional social innovators are told in Social Entrepreneurship and Innovation whereby these individuals presented with a challenge applied their courage, determination, and innovative thinking to find a solution (Gabriel & Drayton, 2016). Social entrepreneurship is a quite new concept but there are examples of social entrepreneurs throughout history such as Florence Nightingale and the concept was first put in use between 1970 and 1980 (Backes et al., 2020).

Although social entrepreneurship is a familiar and old phenomenon, the term used is relatively new. There are several powerful leaders such as Martin Luther King, Mahatma Gandhi, and Susan B. Anthony, just to name a few, who are known as social giants who left their indelible imprint in the hearts and minds of people for the desire and actions to solve social problems that were thought to be unsolvable (Thornton, 2007). These social giants were known for their firm passion and continuous determination while putting themselves at risk for a good cause for society. Although these social giants were not known as social entrepreneurs, they have always existed and today's social entrepreneurs are motivated by the same factors as those social pioneers (Chatterjee et al., 2021). Social entrepreneurship became a topic of interest in the 1990s, with a rise in the quantity of research that has been done (Choi & Majumdar, 2014). The majority of articles outline the primary traits, incentives, and elements that helped make social entrepreneurs successful, leaving a void in the definition as literature is short of formal hypotheses and rigorous methods (Short et al., 2009). It is quite difficult to find the most interesting aspects of social entrepreneurship in scholars' most preferred subjects and there is not much evidence about the environmental factors that promote social entrepreneurship activities (Estrin et al., 2013). Most scholars treat the concept in a descriptive form and in an inconsistent manner.

Social entrepreneurs have vision, focus, and perseverance to solve complex problems of society such as access to education, old age, healthcare, poverty, and global warming which are all quite different phenomena (Rawhouser et al., 2017). One tool for quickening social change in society is social entrepreneurship, to bring changes, and foster

growth in marketplaces. But the questions that are constantly being asked are “Why are they doing it?” “And how?” Although many academics have tried to define the role of social entrepreneur and the concept of social entrepreneurship, these are still largely ill-defined (Thornton, 2007). The more popular social entrepreneurship is getting, the greater the uncertainty about the role of social entrepreneurs (Martin & Osberg, 2007). The development of a coherent theoretical framework is very important in the field of social entrepreneurship.

Social entrepreneurship is a multi-dimensional concept which aims to achieve social values and challenges the traditional views of commercial businesses (Mair & Marti, 2006). Social entrepreneurs have existed for some time but the definition has always been contested within both the practical and academic discourses due to a greater recognition from the public sector and scholars. Social entrepreneurship has been defined using literary language and notions related to entrepreneurship but this has led to many controversial views on the definition (Mair & Marti, 2006).

The absence of a harmonized paradigm on the topic has thus given rise to different definitions being put forward by individuals from different geographical origins and also created opportunities for further research in the field across the globe in various locations (Bacq & Janssen, 2011). The concept of social entrepreneurship is analyzed based on the Gartner’s four differentiating aspects namely individual, organization, process, and environment from the North American and European points of view (Deloitte, 2018).

Social Entrepreneur – the Individualistic approach

Under the individualistic approach, the perception of the social entrepreneur is that of an individual who has creation of social value as main objective for which he or she will adopt a specific entrepreneurial behavior does not profit making (Deloitte, 2018). The social entrepreneur tackles new ways to deal with social problems (Bacq & Janssen, 2011; Deloitte, 2018). According to the Social Innovation School's scholars there has been agreement on the following features of the social entrepreneur (Mort et al., 2003):

They use an innovative and visionary and innovative approach which goes along with the theory of Schumpeter about entrepreneurship.

Strong ethical fiber is one of their characteristics.

They have the ability to identify possibilities.

They have an important function as "Society's change agents".

Social entrepreneurs are regarded as reformers of traditional schemes in order to produce societal value.

In brief, the individualistic social entrepreneur has vision to recognise and take advantage of opportunities, utilise resources to find creative ways to fulfil the social objective for societal and unmet problems (Deloitte, 2018). However, the initiative to solve such problems should emanate from a non-profit organization.

Social entrepreneurship as a process

According to Bacq and Janssen (2011), whatever the individual brings in and requires from the situation, such as professional and economic values, and accommodation to the venture, makes up the entrepreneurial process. These elements brought in by the individual are the objectives of the organization which impact on the aim for the actions of the organisation and are expressed in terms of the societal purpose (Canestrino et al., 2020). The mission remains the core of the venture and can be expressed as social change.

Social Entrepreneurship as an Organization

In the field of social economy, we have the term “social enterprise” which is embedded and includes organizations such as associations, mutuals, and foundations having objectives to serve the society (Bacq & Janssen, 2011). However, the concept, legal form and profit distribution are different from different geographical perspectives. The increasing significance of social issues for organizations is frequently cited as the reason for the emergence of social entrepreneurship (Battilana et al., 2017). The alleged requirement to address substantial gaps resulting from the work of non-governmental groups, governmental organizations and the inability of charities and to supply the demand for social services (McMullen & Bergman, 2017).

Environmental Factors for Social Entrepreneurship

Whether it be individual, process or organization, there is influence of external factors and these have received no attention in literature on social entrepreneurship (Schätzlein et al., 2023). A large number of approaches are present to demonstrate how

environmental influences have a role in conceptualising social entrepreneurship such as economic, cultural, social and institutional. One of the most crucial managerial responsibilities for successful ventures is raising capital. However, social entrepreneurs may find it especially challenging to secure outside investment through conventional channels like bank loans and venture capital (Schätzlein et al., 2023).

According to Saebi et al. (2019), since there is a lack of literature to a certain extent at all levels, the essential knowledge and responses to the most significant research issues have been used to summarize each level of analysis. At the individual level of analysis, the social entrepreneur is seen to have a prosocial personality showing empathy and concern regarding rights and welfare of marginalised individuals and act for their benefits (Ruskin et al., 2016). At this level, there is much compassion, empathy and sympathy involved when engaging in social entrepreneurship. Prior working experiences are important and social entrepreneurs are very ambitious and have self-efficacy (K. D. Clark et al., 2018). At the organizational level of analysis, studies show that there are diverging variables such as funding, fund raising capability, identity, venture's orientation, marketing capabilities, previous commercial experience, and collaboration with non-governmental organizations (Saebi et al., 2019).

Furthermore, research demonstrates that on the organizational level of analysis, tensions and conflicts about the form of social venture should be effectively addressed for it to succeed. At the institutional level of analysis, research shows that the existence of

unsatisfied social needs where the government has failed and which are not served by private sector, social entrepreneurship is being provided by the institutions where the problem occurs (Welter & Smallbone, 2011).

However, it is observed that the notions of social entrepreneurship of American and European countries are different, not only the views from different parts of the world differ but different views coexist within the United States (Bacq & Janssen, 2011). Scholars such as Martin and Osberg (2007); Peredo and McLean (2006); Fridhi (2021) recognize the lack of a clear definition and consistency in the term "social entrepreneurship". Furthermore, Mair and Marti (2006) stated that numerous studies make use of the concept of entrepreneurship. to provide attention to the social entrepreneurship issue which should have been an independent area of inquiry.

Despite the increase in popularity, to various people, the idea of social entrepreneurship might signify different things and is confusing (Wu et al., 2020). There are several conceptions and interpretations of the concepts that a consensus to have one definition in the social entrepreneurship is practically impossible (Venkataraman, 1997). Furthermore, social entrepreneurs are good at identifying opportunities and take advantage thereof to provide better social value. They also show a high level of risk-tolerance, innovativeness and are proactive. Bacq and Janssen (2011); Fridhi (2021) see a social entrepreneur with a clear vision because of this capability to recognize opportunities and gather necessary resources to achieve the social mission in a creative manner.

During the last two decades, several scholars have endeavored to make advancement for a clear definition of social entrepreneurship in terms of its activities, dimensions, and boundaries in view of strengthening the concept (Wu et al., 2020). To advance in theory, the scholars called for efforts and more research regarding the determinants and environmental factors were necessary. In 2009, Short et al. reviewed the literature to establish the conceptual parameters of social entrepreneurship while in 2011, Bacq and Janssen sought to elucidate the principles of social entrepreneurship, social entrepreneurship organization and social entrepreneurs from both the thematic and geographical perspectives. Social entrepreneurship was conceptualized by Choi and Majumdar in 2014 with five sub-concepts and the prevailing definitions were further examined by other scholars (Wu et al., 2020). Scholars such as Dato-On and Kalakay, 2016; Choi and Majumdar, 2014; have investigated a number of research sources and are of the view that a great deal should be learnt about social entrepreneurship to agree about what constitutes social entrepreneurship. Other scholars such as Goyal et al. (2016); Bonfanti et al. (2016) have also conducted studies in an attempt to define social entrepreneurship by answering certain questions which are related to the phenomenon such as qualification as a social entrepreneurship, the roles thereof, the mission of the organization and its outcomes.

The concept of social entrepreneurship is well established, and many business schools have put it in their curriculum as it is also found to be a major subject for academic

and professional meetings (Peredo & McLean, 2006). The concept of social entrepreneurship has gained ground through the growing number of web sites and even by publishing the domain of social entrepreneurship in special editions of business journals. Social entrepreneurship deals with complex social needs and it is emerging as an innovative approach through application of business approach to non-profit organizations (Saebi et al., 2019), or is it just another approach to name the business of good deed? Moreover, what makes it such a promising approach? These are the grey areas in the concept of social entrepreneurship that should be clarified and rest on understandability of the phenomenon.

Social entrepreneurs are individuals with very distinctive features who are portrayed as heroes having entrepreneurial qualities (Williams et al., 2023). For instance, Bill Drayton believed that social entrepreneurs have a special and distinct trait that motivate them to make changes for the betterment of the society while Dees says that social entrepreneurs strive to locate new areas of social improvement (Wu et al., 2020). In general, social entrepreneurs start with small initiatives having global relevance and engage themselves to continuously innovate, adapt, and learn and they act without regard to the constraints of available resources. (Williams et al., 2023).

The concepts of social entrepreneurship and social entrepreneurs are widely contested making it challenging to define in a way that is universal. The heterogeneous characteristic of the concept of social entrepreneurship has prompted distinct definitions and significance among diverse parties and making it more challenging to get hold of

(Saebi et al., 2019). According to Dwivedi and Weerawardena (2018), attempts to conceive social entrepreneurship and define what exactly social entrepreneurs undertake remains insufficient. Acs et al. (2013) further say that such ambiguity in the term has rendered the demarcation of social entrepreneurship from other phenomena more difficult. Some of the many suggested interpretations of social entrepreneurship and social entrepreneurs found in literature are as follows:

Table 2. 1
Definition of Social Entrepreneurship/Social Entrepreneurs

Author/s Year	Definition of Social Entrepreneurship/Social Entrepreneurs
Austin <i>et al</i> (2006)	Social entrepreneurship is creative, socially beneficial activity that can take place in or across the public, private, and nonprofit sectors.
Brinckerhoff (2000)	Risk-takers on behalf of the people their organization serves are known as social entrepreneurs.
Cho (2006)	Social entrepreneurship can be defined as a broad range of institutional actions that combine the pursuit of financial goals with the advancement of substantive and terminal values.
Dees (1998)	In order to effect change in the social sector, social entrepreneurs must: <ul style="list-style-type: none"> • Adopt a purpose to produce and sustain social value, not simply private value; • Identify and persistently pursue new possibilities to further that goal; • Being more accountable to the constituencies served and for the results produced; • acting bravely without being constrained by the resources at hand; and • participating in a process of ongoing innovation, adaptation, and learning.
Fowler (2000)	The development of sustainable socially beneficial (socio-)economic structures, relationships, institutions, organizations, and practices is known as social entrepreneurship.
Hibbert, Hogg <i>et al</i> (2002)	Social entrepreneurship is defined as "the application of entrepreneurial behavior for social ends rather than for profit objectives, or alternatively, that the profits generated are used for the benefit of a specific disadvantaged group.

Hockerts (2006)	Hybrid businesses that fall somewhere between the public and nonprofit sectors and the for-profit commercial sector are known as social purpose businesses. They do not entirely fit within either sphere as a result.
Perrini/Vurro (2006)	Social entrepreneurs are change agents who drive innovation in the social sector by leveraging their entrepreneurial spirit, capacity building skills, and ability to quantify social consequences and provide tangible evidence of the idea's quality. A dynamic process developed and led by an individual or group (the creative social entrepreneur) who aims to capitalize on social innovation with an entrepreneurial mindset and a strong drive for success in order to generate new social value in the marketplace and community at large is known as social entrepreneurship.
Prabhu (1999)	Are people who establish and oversee creative entrepreneurial businesses or organizations whose main goal is the advancement of their clientele and social change.
Robinson (2006)	The process of identifying a specific social problem and a specific solution to address it, assessing the venture's social impact, business model, and sustainability, and creating a business-oriented nonprofit organization or a social mission-oriented for-profit that aims to maximize profits are all components of social entrepreneurship.
The Institute for Social Entrepreneurs (2002)	An individual who seeks both a financial and a social return on investment while pursuing social goals through earned-income tactics is known as a social entrepreneur.
Thompson <i>et al</i> (2000)	People who see an opportunity to address an unmet need that the state welfare system will not or cannot address and who assemble the required resources—typically people, frequently volunteers, funds, and space—are known as social entrepreneurs. They then use these resources to change the world.
Waddock & Post (1991)	Social entrepreneurs are members of the private sector who are essential in changing the public agenda and how some social issues are seen.

Source: Compiled by Researcher from above References

Most of the key definitions of social entrepreneurship and social entrepreneurs in the table above point to the mission of creating social value through a combination of entrepreneurial activities and social mission, while identifying opportunities, being innovative, and taking risks at an individual, organizational, or institutional level (Saebi et

al., 2019). Although the views seem different, there are some similarities in that there is a social mission, the organization's activities and its social mission are closely related., and the distinction between social and commercial entrepreneurship is quite obvious. (Orhei, 2011). According to Zahra and Wright (2016), social entrepreneurship is an umbrella term to define all the activities that are conducted to exploit opportunities and create new and innovative ventures with a view to improving social wealth. In the same way, the social enterprise is described as a hybrid organization founded on a social objective for the betterment of segments of society that are neglected to improve education, nutrition, housing facilities, and health while creating social value in an innovative way and securing profits (Doherty et al., 2014).

Furthermore, from the definitions listed above, researchers distinguish among three different forms of social entrepreneurship (Saebi et al., 2019). The first category of researcher sees social entrepreneurship as a move by non-profit organizations paying attention to market forces and looking for more social needs, fierce competition, and additional income following reduction in governmental assistance (Bacq & Janssen, 2011). The second category of researcher sees social entrepreneurship as a group of independent social entrepreneurs looking for solution to resolve a social issue. The third group of researchers sees social entrepreneurship as engagement of commercial businesses in socially responsible practices in cross-sector partnerships. In brief, we can say that some relate social entrepreneurship with non-profit organizations, starting for-profit or earned-

income ventures or it just refers to businesses that have adjusted their operations to integrate social responsibility (Saebi et al., 2019).

Nevertheless, despite a number of inconsistent definitions of the concept, there are two broad and important components to define social entrepreneurship namely *social* and *entrepreneurship*, which consists of entrepreneurial elements (Mair & Marti, 2006). *Social* concerns the boundaries of the social needs to meet the goals and motivations while *entrepreneurship* focuses more on the approaches to meet social needs. Based on the definition of Dees (1998), although social entrepreneurs have a societal purpose, they are revolutionaries and reformers who make fundamental changes in the field of social work. They endeavor to make sustainable and systemic improvements in the field of education, healthcare, environment, economic development and so on (Seda & Ismail, 2020). Social entrepreneurs are innovative and have a mission to create wealth while making social changes and a vision to achieve their goals by pursuing new opportunities.

The concept of social entrepreneurship is multifaceted and exists at individual, organizational, and institutional levels and conducting research on social entrepreneurship at one level would misrepresent the phenomenon and run the risk to forego some opportunities that could arise by considering more levels (Saebi et al., 2019).

Social entrepreneurs are somehow influenced by the characteristics of the personality of the social entrepreneurs (Stephan & Drencheva, 2017). Social entrepreneurs

do possess a few characteristics of business entrepreneurs' personalities but in addition, they possess unique social qualities including social responsibility and empathy which influence the practice of social entrepreneurship activities (Valle et al., 2018). People select their social entrepreneurial activity based on their personality traits, expertise needed in the field, and impetuses in line with the requirement of the business activity. Scholars believe that the personality of social entrepreneurs is a mixture of social and business orientation who use similar commercial and traditional techniques but with deep commitment and for a social cause (Satar & Natasha, 2019). Social entrepreneurs have personal qualities such as risk-taking, innovativeness, and proactivity like commercial entrepreneurs (Sulphey & Salim, 2020) and in addition they can be distinguished by their discrete social traits such as social obligation and empathy (Stephan & Drencheva, 2017). That is, in addition to entrepreneurial orientation, social entrepreneurs should primarily have pro-social orientation.

According to a study conducted by Koe Hwee Nga and Shamuganathan (2010), social entrepreneurs have five characteristics namely social vision, social networking, sustainability, innovativeness and financial returns. Having social vision gives the social entrepreneur the capacity to recognise potential opportunities in the future and act as the agent for social change to meet gap in social needs not fulfilled by the government and the private sector (Kimakwa et al., 2023). Secondly, through social networking, social entrepreneurs get invaluable resources, ideas, capabilities, emotional and financial support (Hashim et al., 2023). Furthermore, through social networks, the social entrepreneur can

disseminate the mission, knowledge and information in view of being more creative and finding solutions to solve the social problems. Thirdly, through sustainability, social entrepreneurs can drive social change for those who are at the base of the social pyramid and also change which might not have been possible by the government and commercial entrepreneurs (Hashim et al., 2023). Fourthly, social entrepreneurs should be innovative and create sustainable solutions by using a combination of technology, capabilities, processes and products. Such innovative capabilities may be improved through exchange of social capital and intellectual across the networking process (Cavazos-Arroyo & Puente-Diaz, 2023). Lastly, social entrepreneurship is a continuum of business models and dividends are not paid as profits but being put back into the company to meet social policy goals (Kimakwa et al., 2023).

Differentiating Between Social and Commercial Entrepreneurships

Entrepreneurship is the driving force for the business and social sector to expand and grow rapidly and the variables of both the individual and organizational determine how entrepreneurs would act in their ventures (Austin et al., 2006). The qualities of an entrepreneur are very peculiar, with outstanding traits and selfless motivation to bring changes in society. The concept of social entrepreneurship appeared in academic literature in the late 1990's and slowly emerged in the business world (Certo & Miller, 2008). The founding definitions of social entrepreneurship describe the concept as a combination of business with a social mission done through determination and innovation (Bacq & Janssen, 2011). As the concept has evolved, literature shows that definitions of social

entrepreneurship have mushroomed and are all guided by the principle for innovation and the production of societal value as opposed to individual wealth. The main purpose for social entrepreneurship is to address social problems by mobilizing resources effectively.

Over the years, social enterprises and entrepreneurs have gained economic strength and a variety of profitable and beneficial businesses have been created giving rise to collaborative effort to distinguish such achievements from the efforts in traditional entrepreneurship (Van Slyke & Newman, 2006). With a clear distinction, stakeholders, such as researchers, analysts and investors, are in a better position to value strategic and operational outcomes of the respective organizations in the marketplace. However, according to Peredo and Chrisman (2006), many of the efforts to differentiate between traditional and social entrepreneurship have created more confusion than clarification between the two business approaches.

To comprehend social entrepreneurship, it is necessary to draw comparisons with another form of entrepreneurship (Austin et al., 2006). Social entrepreneurship has evolved from commercial entrepreneurship, and the recent boom of the concept prompts a comparative examination to determine the commonalities and distinctions between social and commercial entrepreneurship.

The priority of creating economic riches above creating social wealth is where commercial and social entrepreneurship diverge (Mair & Marti, 2006). In commercial

entrepreneurship, opportunities are identified, assessed, and taken advantage of for financial gain and entrepreneurs are apt to spot opportunities concerning the demand and supply for new and value-added goods and services (Certo & Miller, 2008). But social entrepreneurship involves finding, assessing, and taking advantage of possibilities to generate benefit for society and social entrepreneurs have a fine perception and comprehension of social needs which are fulfilled by creative organizations (Certo & Miller, 2008). Entrepreneurs are described as exploiters of opportunities who are always searching for occasions and responding to them such as change in preferences of consumers, technology, and social norms (Drucker, 1995).

Although the first concern of commercial entrepreneurs is creating economic value and private gains, they may create social values in the process which are considered as by-products of the economic value creation (Austin et al., 2006). In the same way, social entrepreneurs may as well have private gains as by-products while working towards their main objective of creating social value. However, these are just secondary gains as their objectives remain distinct with accurate conceptualization of being purely economic and social in nature.

Just like entrepreneurship is an major factor in the contribution of the advancement and well-being of society, in the same manner, social entrepreneurship is seen as an important field whereby activities of entrepreneurs are developed with the main objective

of social value generation. Below is a table showing the comparison between traditional entrepreneurship and the relatively new concept of social entrepreneurship:

Table 2. 2

Difference between Entrepreneurship and Social Entrepreneurship

Entrepreneurship	Social entrepreneurship
Generates new markets with launch of new products and services	Generates new markets designed to meet the social needs and necessities
Creation of new jobs	Creates new jobs and social equity
Resources are mobilized	Resources are mobilized while addressing social challenges
Introduction of new product with innovative technologies and industries	Social capital is generated
Main aim is customers	Main aims are beneficiaries and customers

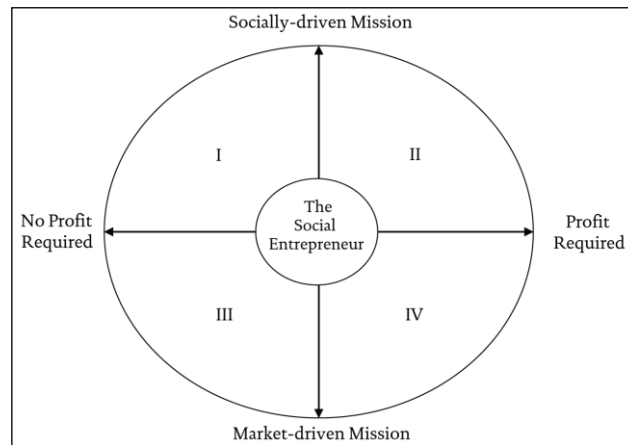
Source: Adapted from Corporate social entrepreneurship versus social intrapreneurship: same ideas, different trajectories, by Hadad & Cantaragiu, 2017

Just like any new emerging field, there has been much literature regarding social entrepreneurship and a wide range of interpretations while attempting to describe the main concept ranging from social entrepreneur, social innovation, and social entrepreneurship (Hadad & Cantaragiu, 2017). There is an absence for a clear definition which keeps the definition fragmented and there are no clear-cut answers to questions raised and the most inclusive definition is the one put forward by Dees (1998) who defines social entrepreneurs as those having the function of agents of change in society who recognise, adopt, and pursue the mission for creation of social and sustainable value.

Massetti (2008) also says that despite the great number of definitions put forward by scholars to describe social entrepreneurship, it is unanimously agreed that it is a complex phenomenon which is still not well understood. The definitions range from narrow to broad, from being very innovative with profit making and social objective to non-profit sector, or a mix for-profit and non-profit approaches. The narrow definition of social entrepreneurship refers to the application of market-based skills and business expertise in the non-profit sector which are developed through innovative approaches to have a revenue (Shah, 2021) while the broad approach of social entrepreneurship engages in the profit sector with innovative activities such as in corporate social entrepreneurship (Austin et al., 2006) or commercial ventures with social purposes (Dees, 1998). There is no legal form to define social entrepreneurship as all definitions have a common aspect which is to create social value through innovation and are pursued through the use of various vehicles in business, whether profit or non-profit making or governmental sectors.

The figure below introduces the Social Entrepreneurship Matrix (SEM), which shows a combination of social entrepreneurial and mission-orientation.

Figure 2. 2
Social Entrepreneurship Matrix



Source: Adapted from the social entrepreneurship matrix as a “tipping point” for economic change, by Massetti, 2008

A different approach to business is offered in each quadrant which the entrepreneur uses to model the social enterprise. Each quadrant represents a different business approach which serves as guidance for the social entrepreneur while developing his or her business. It is also used by other stakeholders such as banks and investors while considering the nature of the social business and for decision making *vis-à-vis* the organization. In other words, the social entrepreneurship matrix is used as a decision-making tool.

Types of enterprises are represented in the matrix and a brief description of how social entrepreneurs fit into each quadrant is explained below (Massetti, 2008):

Quadrant I - the traditional not-for-profit organizations are basically driven by social mission. Although being non-profit making and not taxable, money should still be raised to meet the business expenses. Societies, trusts, religious institutions, foundations and so on fall under this quadrant and depend on donations, grants, and

charity money to sustain the socially driven enterprise (Massetti, 2008). In certain situations, social entrepreneurs charge a fee for the supply of products and services in view of raising funds to finance their operations.

Quadrant II - the Tipping Point Quadrant shows organizations that have socially driven missions and also have to make a profit for survival. There is much promise in this quadrant with regards to economic transformation and depends on the “double-bottom line” approach for the business to perform well and excel in the marketplace (Massetti, 2008).

Quadrant III – the Transient Organization quadrant represents enterprises that are market-driven but are not profit-oriented. Such organizations operate for a brief period of time, irrespective of whether profit is made. Social entrepreneurs are motivated by the development of a strategy to address a social issue rather than the creation of a new organization. The organizations should identify a need in the marketplace and are supported by government support, grants, private and public donations (Massetti, 2008).

Quadrant IV – the Traditional Biz Quadrant portrays a profit-oriented and market-driven business in its most classical form. Such organizations follow the market demand to produce and sell products and services available in the market in view of making profits to expand and grow also for paying taxes and investors. Failure to generate profits may lead to closure of business (Massetti, 2008). Organizations in this quadrant sometimes offer free or services at a reduced rate and donate part of their profits to social organizations.

Comparing and contrasting commercial and social entrepreneurship – Similarities & Differences

The comparative analysis will use the broad concept of social entrepreneurship, which is understood as a unique, social generating value activity that can take place inside or across the non-profit, economic, or governmental sectors (Austin et al., 2006). Bacq and Janssen (2011) say that both social and commercial entrepreneurship are aspects of the same concept that have parallels and distinctions. They both belong to entrepreneurship field.

Similarities

The first similarity is that research in social entrepreneurship is phenomenon-driven, as in the case of commercial entrepreneurship whereby ventures were created among professionals long before scholars were drawn to the subject (Mair & Marti, 2006). Both social and commercial entrepreneurship place a strong emphasis on opportunity and vision, as well as the willingness to take calculated risks in order to realise their ideas to completion. Entrepreneurs should identify the public pain points to know about the market demands and social needs so that effective solutions may be provided. Secondly, there is a lack of unifying paradigm in both cases. There have been differences in opinion about what constitutes entrepreneurship. An absence of unifying paradigm to define social entrepreneurship also has led into a proliferation of definitions. Thirdly, not long back, similar to the topic of social entrepreneurship, which has not yet been thoroughly and fully articulated, the field of entrepreneurship was in its infancy. The advancement of social entrepreneurship theory is replicated from that of the parent-field. Fourthly, both social and

commercial entrepreneurs anticipate outcomes that are measurable and quantifiable as they seek return on investment made in the venture (Gina & Roland, 2007). The achievements for social entrepreneurs are measured by the social return on investment while commercial entrepreneurs seek a percentage return on financial investment in the business venture.

Differences

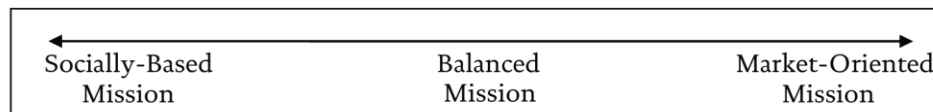
Differentiation between the two types of entrepreneurship can be based either on the personal traits of entrepreneurs (Hartigan, 2006), termed as indicative approach (Bacq & Janssen, 2011) or on business approaches themselves (Roberts & Woods, 2005), termed as functional approach (Bacq & Janssen, 2011). However, Austin et al. (2006) believe that a systematic method for comparing the business approaches was suggested since the line separating commercial and social entrepreneurship should be continuous rather than dichotomous.

In order to distinguish between social and commercial entrepreneurship, the characteristics of the entrepreneurs are examined under the indicative approach. Although social and commercial entrepreneurs share many characteristics, both place equal emphasis on potential and goals, as well as having the capacity to persuade others to adopt their points of view. (Bacq & Janssen, 2011; Geradts & Alt, 2022). Despite the overlap between social and commercial entrepreneurship, a major difference is that the vision of social entrepreneurs is to solve a problem in the social sector or a socio-moral motivation (Nicholls, 2008). Other dimensions that may be used to compare the two kinds of businessmen based on their focus, strengths, mission, and profit perception. (Geradts &

Alt, 2022; Thalhuber, 1998). Strengths of social entrepreneurs come from experience and wisdom, and they concentrate on long term capacity.

On the other hand, the strengths of commercial entrepreneurs come from their knowledge and personal competences, and they are happy with short-term financial gains. The ideas of social entrepreneurs are restricted to their mission and all profits are reinvested in the enterprise and on the other hand, commercial entrepreneurs distribute profits to shareholders (Geradts & Alt, 2022; Thalhuber, 1998). Both commercial and social entrepreneurs endeavor to make changes in the marketplace but traditional commercial entrepreneurs are more market oriented while social entrepreneurs concentrate on social concerns (Massetti, 2008). Both types of entrepreneurship need profits to progress in their business to bring about changes in the marketplace. The difference reflects in the degree of intent and the figure below depicts a continuum showing the distinction in business which are mission driven.

Figure 2. 3
Continuum - Distinction in Mission Driven Business



Source: Adapted from *The social entrepreneurship matrix as a “tipping point” for economic change*, by Massetti, 2008

Depending on the mission of the entrepreneurs, they can be located anywhere along the continuum. A social entrepreneur working for social causes will be on the left side of

the continuum and an entrepreneur who has a market-oriented mission will be on the right side of the continuum (Masseti, 2008). An entrepreneur who combines social causes with market-oriented interests will be located in the center. The continuum is used to understand the nature of entrepreneurship for three reasons. Firstly, for the entrepreneurs to be considered for what they do. Secondly, the notion of degree is used to assess more realistically and thirdly, the possibility of mission transformation over time is considered (Masseti, 2008).

The systematic approach to differentiate between social and commercial entrepreneurship consists of four main theoretical propositions put forward by Austin et al. (2006) namely mission, performance measurement, resource mobilization, and market failure. These propositions are explained below.

The first difference lies in the mission being pursued by both commercial and social entrepreneurs (Geradts & Alt, 2022). Commercial entrepreneurship aims to create operations in the form of new goods, services, and jobs that are beneficial for society, profitable and result in private gains. Commercial entrepreneurs can also have impacts that transform society and function as a driving force to motivate the commercial entrepreneurs. In contrast, social entrepreneurship has a goal of delivering social value for the general public's benefit and the difference with commercial entrepreneurship lies in the purpose of the organization and rewards. Austin et al. (2006) summarise the difference in mission of the two types of entrepreneurs as an essential characteristic that separates

social entrepreneurship from commercial business which occurs in different areas of enterprise management. The mission may also create tension with social and commercial dimensions within the enterprise.

Secondly, although commercial and social entrepreneurs have different missions, the most obvious difference lies in measurement of their performances (Šimundža, 2015). Financial performance, assessed in monetary and physical terms, is the benchmark for commercial entrepreneurial performance, which are standardised metrics recognised and understood by investors and entrepreneurs. Wealth creation in commercial entrepreneurship is used to measure value creation. Measures of financial performance are sales growth, market share, return on assets, return on equity, profitability of the organization, quality and customer satisfaction. Any type of social entrepreneurship has a social purpose which creates challenges for measurement of performance unlike commercial enterprises that have measures of performance which are quantifiable and tangible. However, social entrepreneurial organizations are accountable to a larger number of financial and non-financial stakeholders which makes it more complex and challenging to manage relationships and measure performance due to the difference in perspectives of the social impact, multi-causality, non-quantifiability, and the temporal dimensions (Geradts & Alt, 2022; Kanter & Summers, 1987). “Social impact performance evaluation will continue to be a key distinction, making stakeholder connections and responsibility more difficult” (Austin et al., 2006).

Thirdly, a widespread distinction between the two types of entrepreneurships is in the manner by which financial and human resources are managed and mobilized. To remain competitive and gradually grow in the market, commercial entrepreneurs make promises to employees for payment of remuneration as recognition for their work (Dees & Anderson, 2003). Employees are attracted and motivated to work for competitive rewards and furthermore, the company's interest is invested in new projects after distribution to stakeholders. On the other hand, social entrepreneurships are run by staff working both full and part time as well as volunteers and they are not in a position to pay employees competitive wages like commercial entrepreneurship because of the nature and small size of their ventures. Very often employees of social entrepreneurship give more value to the satisfaction they derive and non-monetary compensation they get from their work (Dees & Anderson, 2003). The surplus of funds derived from social mission are reinvested rather than being distributed to stakeholders. Social entrepreneurs have less access to financing markets than commercial entrepreneurs since non-distributive prohibitions apply to revenues generated by nonprofit institutions. Due to the nature of social entrepreneurial ventures, it is difficult to provide extra remuneration to employees and they give much value for non-pecuniary reward they get from their work. According to Austin et al. (2006), financial and human resources will make a predominant distinction between commercial and social entrepreneurship, leading to different approaches in the management of human and financial resources.

The fourth difference is economic failure. Economic failure occurs when the commercial sector fails to address a pressing social issue, and social entrepreneurship organizations created with a social mission emerge (Weisbrod, 1977). When there is a problem and commercial entrepreneurship fails, then social entrepreneurship gets an opportunity and enters into play. Very often this happens when those needing the service are unable to pay then commercial entrepreneurship quit leaving opportunity for social entrepreneurship. “Different entrepreneurial prospects for social and commercial entrepreneurship will arise from market failure” (Austin et al., 2006).

The above-mentioned propositions have been used to facilitate the comparison but in fact very often social and commercial enterprises are found to be quite similar, especially when the enterprises are engaged in operational activities with development sale of products and services in view of meeting social needs and derive income that is used to sustain the organization and attract other resources such as human and financial (Austin et al., 2006). As such, commercial entrepreneurs have realised the need to incorporate social purpose into their business practices, products, and services so that the economic value of their enterprise is enhanced. However, in order to test the four propositions, Austin et al. (2006) have used the “PDCO” analytical framework to further correlate the four components of commercial and social entrepreneurship, described below, which are interrelated and important in the management of an entrepreneurship.

People – are an element that actively participates in business activities and brings in resources that are needed to make the venture successful. The human and financial elements are crucial in any organization and “people” is not only about the personal characteristics of the entrepreneur such as his or her attitudes, goals, contacts, skills, and values but also include those of all participants and employees that contribute to make the venture successful. Therefore, both social and commercial entrepreneurship should consider managers, employees, financial institutions and other stakeholders important to the success of the venture (Certo & Miller, 2008). In social entrepreneurship, social entrepreneurs should respect and attract human resources with unique skills and talents to make the mission live and in turn; to attract such human resources and make them willing to work, social entrepreneurs should have a strong reputation. Due to limitations in paying employees the market rate, social entrepreneurs should motivate potential participants and rely on volunteers to serve in key positions. Both social and commercial entrepreneurship have similar needs with regards to human and financial resources, but it is a fact that social entrepreneurs encounter additional limitations such as limited access to financial institutions, funding, resources, and best talent.

Context – include factors that are relevant to both the social and commercial entrepreneurship but not within the control of the entrepreneur. Such factors, such as tax policies, the general economy, employment level, socio-political institutions, technological advances, and regulations in the operating areas of the enterprise, can have an impact on the business activities (Meek et al., 2010).

Deal – refers to the substance of bargaining among participants in the business venture defining who among the participants gets what, how much, and when will delivery and receipt occur. The deal arises from discussion on topics such as social recognition, personal needs, economic benefits, social interactions, goals and so on (Martin & Osberg, 2007). Such negotiations occur in social and commercial entrepreneurship for creation of mutually beneficial contractual relationships to have access to talented and skilled participants and financial resources. However, the deal is fundamentally different for social and commercial entrepreneurs in the manner in which resources are mobilized and ambiguities attached with performance measurement and there are specific differences in transactions (Austin et al., 2006). Commercial entrepreneurs have greater negotiating leverage when it comes to dealing with customers, while social entrepreneurs rely more on innovative tactics and non-financial incentives to attract, retain, and inspire staff, funders, and members (Letts et al., 1999). Commercial entrepreneurs have more flexibility and time for using funds as they have a wider range of financial deals while social entrepreneurs rely on investors that can provide capital to cover part of the needs of the venture on a temporary basis.

Opportunity – the entrepreneur should have a vision to develop and implement a change in the actual situation to a future desired one with investment of scarce resources in any activity that expects a return in future (Austin et al., 2006). Exploitation of an opportunity in either social or commercial entrepreneurship requires an investment of scarce resources for a future return. The return for commercial entrepreneurship is

economic while for social entrepreneurship, it is social returns. The opportunities for the two types of entrepreneurships vary due to the difference in mission and response to the failure of the market. The focus of commercial entrepreneurship is on innovations and emerging demands and is a challenge to identify and capture opportunities that are not exploited, profitable and high growth, while meeting fundamental and persistently unmet societal needs is the main goal of social enterprise. which can be financed from revenues generated from operations or from donations in case the activity in question is not financially sustainable (Geradts & Alt, 2022).

We can conclude that the primary distinctions between commercial and social entrepreneurship are found in the goals and methods of using the profits.

Social Entrepreneurship and Corporate Social Responsibility

Corporate Social Responsibility (CSR) is the term used to describe the voluntary efforts businesses make to run their operations morally and make a beneficial impact on society (Reckmann, 2024). It explains how a business uses social and environmental initiatives to enhance the lives of communities and society. CSR has a considerable effect on how customers and their target market view brands. Additionally, it might draw in workers and investors who value the company's stated CSR objectives. It frequently permeates the operations of big businesses. The aim of corporate social responsibility is to upgrade society and promote social accountability. Being eco-friendly and eco-conscious; encouraging equality, diversity, and inclusion in the workplace; treating staff with dignity;

giving back to the community; and making sure business decisions are moral are some ways that a firm can embrace CSR (Reckmann, 2024).

From individual businesses' voluntary decisions, CSR has developed into regional, national, and worldwide mandates. But a lot of businesses decide to go above and beyond the law and include the concept of "doing good" in their business plans. Some qualities of CSR are as follows:

Compliance-oriented: frequently conforms to moral and legal requirements. CSR is incorporated into the business plan and regarded as a duty that businesses have to their stakeholders.

Impact areas include philanthropy, employee welfare, community involvement, and the environment. Examples include environmental initiatives such as carbon footprint reduction, investment in the community through initiatives in healthcare, old age and education.

Intersection of CSR and Social Entrepreneurship

Shared goals - both CSR and social entrepreneurship seek to advance quality of life and solve societal problems.

Collaborative Potential - To increase their influence through CSR initiatives, social entrepreneurs frequently collaborate with corporations.

Creative CSR - Businesses can use social entrepreneurship strategies to carry out creative and sustainable CSR initiatives.

Driving Change - Although they function at different levels—individual business owners versus multinational conglomerates—both serve as catalysts for systemic change.

Personality Traits and Challenges Faced by Social Entrepreneurs

Personality is a concept that is evaluated by many disciplines and is described as an interpersonal process in the individual with consistent behavior patterns (Irengun & Arikboga, 2015). All individuals have ideas according to their own personality type and determine people differences in the manner they think, react, feel, and behave (Pappas, 2021). The personality of an individual is inherent in people as they possess a psychological system that dictates the original patterns while adapting in an environment (Zhao & Seibert, 2006). The thoughts, feelings, and actions of an individual are reflected in their personality, which is a sui generis reflection of certain internal and external factors such as spiritual, physical, generic, academic, and acquired abilities, desires, emotions, instincts, routines, and actions (Praszkier & Nowak, 2012). Therefore, the personality of a person does not reflect the individual's personality only but also reflects traits of the group of the individual or the society.

Economic theory ignores disparities in ability, human values, and the willpower of people, as well as the unique abilities of those who are adaptable enough to employ social judgment when developing novel and workable concepts (Loasby, 2007). Social entrepreneurs follow a diversity of social causes that require social interaction,

innovativeness, high-level of willpower, and sanctioning (Goss, 2008). Personality traits play an important role in molding a person's behaviours and perceptions to follow on a social mission and lawfulness of the enterprise (Koe Hwee Nga & Shamuganathan, 2010). Individuals behave differently in similar situations due to the personality traits which are predetermined qualities in personal actions. Their individual personality traits provide a thrust for high willpower to drive the passion for social interactions and innovation (Kurucz et al., 2008).

Social Entrepreneurs - Personality Traits

Personality traits of social entrepreneurs have been advanced to explain the agile actions and industrious behaviours of the latter (Llewellyn & Wilson, 2003) and furthermore, their actions are often demarcated as they have the potential and aptness to foresee, capture, empower and perform transformational development and changes in difficult conditions of risks, and scarce resources (Broccia et al., 2022; Thompson et al., 2000). Subjective personal expertise, individual principles, perspectives, and past experiences can influence an individual's personality traits (Kor et al., 2007) and serve as catalyst to impact social entrepreneurs' decision-making based on perceived risks. An initiative-taking mentality might be a good indicator of entrepreneurial aspirations, but its impact can diminish as the business grows (Frank et al., 2007). Nevertheless, there is an under-exploration and under-research to define the influence that personality traits have when defining social entrepreneurship (Koe Hwee Nga & Shamuganathan, 2010; Broccia et al., 2022).

Most scholars cite innovativeness, social value creation, independence, minimal risk aversion, achievement centered, sense of density, and tolerance for ambiguity as characteristics of the social entrepreneurs which are very often confused with personality traits (Brooks, 2009). The four primary aspects of social entrepreneurship are sense of destiny, sustainability, networking on social networks, and social perspective. It is to be noted that while social vision covers sense of destiny and sustainability encompass social value creation, the other characteristics namely independence, ambiguity tolerance, achievement orientation, and risk aversion are related to the personality traits dimensions (Koe Hwee Nga & Shamuganathan, 2010; Broccia et al., 2022).

Researchers say that there are five core personality traits based on theoretical evidence which started in 1949 by Fiske and was extended by more investigators. In 1985, Paul Costa and Robert Mc Crae introduced the Big Five Personality Model to define personality traits which has five factors and is one of the most common methods used today (Irengun & Arikboga, 2015; Koe Hwee Nga & Shamuganathan, 2010). The development of personality qualities that directly impact social entrepreneurs' aspirations to make their ventures meaningful and effective is facilitated by management education.

Big Five Personality Model to Define Personality Traits

The five factors under the Big Five Personality Model are neuroticism, openness, conscientiousness, extraversion and agreeableness. These are important to understand the

personality traits of social entrepreneurs (Irengun & Arikboga, 2015; Koe Hwee Nga & Shamuganathan, 2010) and are explained below:

Openness – is manifestation of an individual's affinity and intellectual curiosity about new opportunities and experiences (Elanain, 2008) and individuals with high openness do not fear new challenges which often requires a high degree of creativity, versatility, and imagination. They have an individualistic nature and can be very inquisitive, impulsive, get bored easily when a project stagnates which may be misinterpreted by others (Cherry, 2021). Researchers have found that entrepreneur's greater openness as compared to administrative personnel as they have to be more creative for utilization of scarce resources at their disposal. High openness people have a broad range of interests and are curious to be more adventurous, creative, learn new things and have new experiences and those low in this trait are more traditional and struggle with abstract thinking (Cherry, 2021). Openness may positively influence behavior of citizens, but it is inversely related to the long-term sustainability of an enterprise (Elanain, 2008). Due to the recentness of social entrepreneurship, some hypotheses have been put forward by researchers as individuals may go against the conventional economic wisdom which are as follows (Koe Hwee Nga & Shamuganathan, 2010):

H_{1(a)}: Openness has a constructive effect on the dimension of social perception of social entrepreneurship.

H_{1(b)}: Openness have a constructive effect on the dimension of innovation of social entrepreneurship

H_{1(c)}: Openness have an effect on the dimension of financial returns of social entrepreneurship.

Extroversion – extroverted individuals are people who are more outgoing and sociable with assertive and cheerful outlook (Llewellyn & Wilson, 2003). Extroversion gives an initiative-taking personality that is required to fuel intuition and have a captivating vision of the social entrepreneur. Social entrepreneurs should have extroversion as they should communicate with several types of stakeholders, and this creates a positive locus of control that is required to fulfil their need for achievement and the risk-taking propensity. Entrepreneurs have high extroversion when compared to administrative workers which influence positively success of the enterprise. Characteristics of extroversion include sociability, excitability, reward sensitivity, assertiveness, talkativeness, and positive emotions (Cherry, 2021). People with high extroversion tend to gain energy in a social environment. Social entrepreneurs are known to lead their business with strong drive to attain the social mission through the social business venture and the following hypotheses are advanced (Koe Hwee Nga & Shamuganathan, 2010):

H_{2(a)}: Extroversion has a constructive effect on the dimension of social vision of social entrepreneurship.

H_{2(b)}: Extroversion has an effect on the dimension of sustainability of social entrepreneurship.

H_{2(c)}: Extroversion has an effect on the dimension of financial returns dimension of social entrepreneurship.

Agreeableness – the ability to agree with societal agreement while preserving comprehension, mutual trust, to be patient, promote harmony and to be good listeners (Llewellyn & Wilson, 2003). A good cooperative environment helps to keep good relations in alliances. However, extremely pleasant traits could force someone to make concessions in order to win others' support for controversial endeavors. The dimension of this trait includes kindness, altruism, trust, and affection and individuals high in this trait are very cooperative and those low in agreeableness are manipulative and competitive (Cherry, 2021). The following hypotheses are advanced for social entrepreneurship (Koe Hwee Nga & Shamuganathan, 2010):

H_{3(a)}: Agreeableness has a constructive effect of the dimension of social value of social entrepreneurship.

H_{3(b)}: Agreeableness has an effect of the dimension of innovation social entrepreneurship.

H_{3(c)}: Agreeableness has an effect of the dimension of social networks of social entrepreneurship.

H_{3(d)}: Agreeableness has an effect of the dimension of sustainability of social entrepreneurship.

H_{3(e)}: Agreeableness has an effect of the dimension of financial returns social entrepreneurship.

Conscientiousness – the individual's conscientiousness, conformity to regulations and instructions, and steadfast focus on sustaining superior performance (Llewellyn

& Wilson, 2003). Conscientious people are driven by a feeling of duty, diligence, and drive for success, all of which foster their dependability in the workplace. Standard features of the conscientiousness dimension include good impulse control, prominent levels of thoughtfulness, and goal-directed behaviours (Cherry, 2021). Highly conscientious individuals are well organized and conscious of details. The following hypotheses have been advanced for social entrepreneurship (Koe Hwee Nga & Shamuganathan, 2010):

H_{4(a)}: Conscientiousness has an effect on the dimension of sustainability of social entrepreneurship.

H_{4(b)}: Conscientiousness has an effect on the dimension of financial returns of social entrepreneurship.

Neuroticism – refers to the individual's level of stability emotionally (Llewellyn & Wilson, 2003) and highly neurotic individuals often display self-consciousness, impulsiveness, mood swings, low self-esteem and depression. When faced with difficult circumstances involving the management of limited resources and stakeholder pressure, entrepreneurs must demonstrate a high level of optimism and emotional intelligence. Individuals who have high neuroticism experience moodiness, anxiety, sadness, irritability, and emotional instability while those with low neuroticism tend to be emotionally resilient more stable. The following hypotheses are advanced for social entrepreneurship (Koe Hwee Nga & Shamuganathan, 2010):

H_{5(a)}: The social entrepreneurial aspect of sustainability is impacted by neuroticism.

H_{5(b)}: The social networks aspect of social entrepreneurship is impacted by neuroticism.

H_{5(c)}: Social entrepreneurship's innovative component is impacted by neuroticism.

H_{5(d)}: The financial returns component of social entrepreneurship is impacted by neuroticism.

Social Entrepreneurial Personality

Many scholars say that social entrepreneurs combine business and social orientations, whereby they use commercial strategies used by traditional entrepreneurs although the commitment is for a social cause (Al-Harasi et al., 2021). Furthermore, other researchers believe that social entrepreneurs share some commercial entrepreneur's persona qualities such as proactivity, innovativeness, and risk taking (Satar & Natasha, 2019; Sulphrey & Salim, 2020). When social entrepreneurs enter the market, in addition to entrepreneurial orientation, they require to have pro-social orientation which is more important.

Entrepreneurial Orientation

Entrepreneurial orientation is crucial in entrepreneurial studies and according to Abdulrab et al. (2021), an essential component of an effective organisation is its entrepreneurial orientation, which allows it to operate independently and take calculated

risks in response to market conditions. From a social point of view, entrepreneurial orientation is represented by three elements namely proactive, innovation and risk-taking which are essential for most works (Satar & Natasha, 2019; Sulphey & Salim, 2020)

Proactiveness – refers to action taken while anticipating opportunities and ascertaining societal concerns. Social entrepreneurs invest in programs that help to control damage to society (Abdulrab et al., 2021). Proactiveness triggers repercussions as taking care of social issues is social entrepreneurs' main responsibility.

Innovativeness – refers to the readiness to create something through ingenuity to provide upgraded products and services. Innovativeness should possess the same function in social entrepreneurship to develop fresh goods and services or enhance already-existing ones (Bacq & Janssen, 2011). Social entrepreneurs should be more innovative and resourceful when addressing social problems.

Risk-taking propensity – refers to the readiness for an entrepreneur to take risk in a business venture. Each individual has a different risk-taking tendency and people who take significant risks are more likely to try something new, especially in the absence of guarantees (Chipeta & Surujlal, 2017). Social entrepreneurs take risks and take bold actions for any kind of challenges which is a crucial trait of social entrepreneurs.

In view of the above-mentioned three elements of entrepreneurial orientation, the following propositions have been formulated (Abdulrab et al., 2021):

H₁: Entrepreneurial orientation and social entrepreneurial aim are strongly correlated.

H_{1a}: Entrepreneurship in social media Proactiveness and intention have a beneficial relationship.

H_{1b}: There is a favorable correlation between risk-taking and social entrepreneurial intention.

H_{1c}: Socially Responsible Business Positive correlations exist between intention and inventiveness.

Prosocial orientation

Prosocial orientation is defined as a behavior purposely done for the benefit of another and covers a range of important approaches such as sympathy, empathy, altruism, ethical judgement, compassion, social responsibility and so on (Abdulrab et al., 2021). Prosocial attitudes are a major point of differentiation between social and commercial entrepreneurs which is also a prerequisite for engaging in social entrepreneurship activities (Miller et al., 2012). A non-pro-social entrepreneur would not attempt to engage in social entrepreneurship (Douglas & Prentice, 2019). Entrepreneurs who are driven by prosocial motivations are more likely to view social entrepreneurship favorably when it combines risk-taking, creativity, and proactiveness with social responsibility and empathy (Abdulrab et al., 2021).

Empathy shows the ability for an individual to put himself or herself in the shoes of another to precisely feel the individual's pain which can drive him or her to

become a social entrepreneur (Ernst, 2012). The aspiring social entrepreneur can feel and share the emotions of the person and develop a willingness to help in view of reducing the pain of the person.

Social responsibility is defined as a responsibility towards society when a certain social impact is recognised. It is a characteristic associated with a sense of duty to help those in need. Social responsibility goes in parallel with social entrepreneurship activities (Besley & Ghatak, 2017) and certain work conducted by social entrepreneurs shows sensitivity regarding feelings of others and a motivation to create social enterprises. The presence of such kind of entrepreneurs is a dire need to fulfil societal unmet needs.

Drawing upon the significant correlation between the prosocial dispositions of social responsibility and empathy and the purpose of social entrepreneurship, the following proposition are proposed (Abdulrab et al., 2021):

H₂: There is a positive correlation between social entrepreneurial intention and prosocial orientation.

H_{2a}: The two are positively correlated: empathy and social entrepreneurial intention.

H_{2b}: Social responsibility and Social Entrepreneurial Intention are positively associated.

Challenges that Social Entrepreneurs Face

People who are conscious of a social issue are known as social entrepreneurs and are faced with many challenges (Broccia et al., 2022). They need to have the capability to identify and assess such opportunities by using innovative methods and take risks to resolve the problem and achieve benefits. In other words, social entrepreneurs function as change agents who locate, identify and resolve social problems. Social entrepreneurs are those who design, implement, and oversee sustainable and entrepreneurial initiatives to make innovative and self-sufficient revenues through social networks and in view of a social vision (Koe Hwee Nga & Shamuganathan, 2010). Social entrepreneurs are people who work to improve society by locating opportunities and have the capability to take risks and create new resources to solve the problem in an innovative manner (Peredo & McLean, 2006). In this definition, much emphasis is put on the abilities of social entrepreneurs to identify social problems, to be innovative and have the capability of taking risks.

Very often social entrepreneurs aim to solve some specific social problems, or they solve certain social problems more easily due to past individual experiences (Broccia et al., 2022). For example, people who had some problems in their childhood or with some close relatives would like to correct the social imbalance. According to many scholars, social entrepreneurs can resolve the problems they have identified through innovative approaches as minor enhancement do not really serve the problems at source (Praszkier & Nowak, 2012). They believe that an innovative approach is crucial in social entrepreneurship which deals with a different market compared to other types of entrepreneurships. In general, the

markets targeted by social entrepreneurs consist of people of lower income group and with low profit-making and therefore do not attract other entrepreneurs (Prince et al., 2021). For social entrepreneurs to sustain in such markets, they need monetary incomes, and it is imperative to produce innovative approaches. Social entrepreneurs need to aim for financial success in order to endure and operate their businesses over the long haul. when conducting social activities in an innovative manner (He et al., 2022). However, the profit-making goal is not for their benefit but is just a tool used to sustain and realise the goals which is a key factor for social entrepreneurship.

Social entrepreneurs are individuals who initiate action to set up, lead, and manage enterprises that address problems and challenges in the society such as ill-health, old age, social exclusion, and environmental issues, with the aim of creating social values (Stephan & Drencheva, 2017). When addressing societal problems, policy makers are increasingly using the concept of social entrepreneurship in novel ways to palliate the burden and strains on the government budget for welfare. As the concept gains popularity and matures, it is important to know about the individuals dealing with it which leads us to the personality traits of social entrepreneurs which can be very challenging. Social entrepreneur's personality is a niche area and was previously seen as heroic (Frese & Gielnik, 2014) as they would resolve a multitude of societal problems and remove obstacles. However, after years of debate, it is thought that social entrepreneurs' personalities have an impact on the establishment and development of their businesses (Frese & Gielnik, 2014). A personality lens is used to draw attention to the character differences of individuals and provide a

perspective as to why certain individuals launch and persevere in social ventures (Stephan & Drencheva, 2017).

The Attraction-Selection-Attrition theory is applied to social entrepreneurship to better understand the differences in the roles of individuals (Baron et al., 2016). The Attraction-Selection-Attrition theory shows that different individuals have specific choices. In the attraction phase, they are attracted to different occupations according to their personality characteristics, skills, and motivations in their surroundings. If they have a particular skill, traits and motivations, in the selection phase they select a career which require those characteristics while others may just make a certain selection as they feel such a fit by providing financial and other kind of support to an individual.

There are many more requirements to be a social entrepreneur than what an individual may think of and sometime, after launching themselves in a social business venture, they may want to withdraw from their choice which is known as the attrition phase (Stephan & Drencheva, 2017). The personality traits of social entrepreneurs are determined by outlining both what is known and not known about a person engaged in social entrepreneurship which is subsequently mapped to fruitful areas. This normally shows who social entrepreneurs are and provided insight into the array of motivations involved in social entrepreneurship, as well as the similarities and differences with commercial entrepreneurs.

A social entrepreneur is a person or a company that seeks to address societal issues through innovative thinking that breaks traditional norms in the ways that the government, nonprofits, and other enterprises already address these issues (Noruzi et al., 2010). This definition is based on eight basic assumptions as follows:

Social entrepreneurs are not necessarily individuals and can be teams made up of individuals, small groups, networks, or communities that collaborate to alter society.

Social entrepreneurs look for large scale and sustainable changes.

Social entrepreneurship deals with pattern-breaking ideas in solving societal problems and includes organizational and administrative reforms and social innovation.

Social entrepreneurs can be in any sector of society and multi-sectored entities.

Social entrepreneurs do not necessarily engage in social enterprise to be successful as they make use of the best financial sources, structures, and techniques to accomplish social goals.

The degree of entrepreneurship varies much among social entrepreneurial entities as some social entrepreneurs may limit the entrepreneurial activity to a certain unit while others may be more entrepreneurial.

Over time, the level of intensity of social entrepreneurship may fluctuate in response to changes in organizational, political, economic, and social conditions leading to pauses, stops, stall points, and restarts in socially entrepreneurial

ventures. In such situations, social entrepreneurs may seem non-entrepreneurial as they try to react to some external conditions that are inevitable.

Social entrepreneurs may sometimes face barriers to success as they launch pattern-breaking changes.

Social entrepreneurs are faced with the financial, structural, legal status, governance and all other aspects in which the social enterprise operates. The financial support and other social issues that should be addressed vary among different countries thus creating a quite broad social enterprise landscape. When establishing social enterprises, social entrepreneurs are often seriously affected by several factors such as the lack of funds, administrative burdens, business registration costs, unsupportive tax regimes, regulatory changes and legal restrictions in the field. In some countries, social entrepreneurs may as well face obstacles from the structure of global trade.

For social entrepreneurs, funding is a major obstacle because they frequently are unable to obtain startup funds. Since most social entrepreneurs are single people, it might be challenging for them to save up enough money before launching their business (Hossain et al., 2021). They have to struggle to survive and be sustainable and few financial institutions are willing to provide financial support. In order to address social issues, social entrepreneurs thus struggle to obtain the necessary funding and invest their own savings.

When there is a gap in the market and the needs cannot be met by conventional systems, social enterprises are created. The majority of businesses that solve problems are unable to grow to the next level (Hossain et al., 2021). They start with enthusiasm to address a specific problem but due to lack of support and proper policies in place, they are unable to grow, which has an impact on the social enterprise's viability. Resource limitations are another possibility for social enterprises, which could prevent them from growing. One of the biggest problems facing many social entrepreneurs is a lack of an appropriate business plan. The emphasis on social needs somewhat obstructs the development of the good or service that the social company provides, which in turn influences the creation of a competitive business plan.

Critical Success Factors and Measurement of Social Impact of Social Entrepreneurship

Entrepreneurship is important in any economy to foster growth and increase welfare of society as it promotes changes in society and drives innovation (Singh & Singh, 2023). Entrepreneurs have the ability to change our living and working environments and are considered as national assets. The importance of entrepreneurship should not be underestimated as when successful, innovations brought about by the enterprise would improve the standard of living, create wealth, jobs and contribute to the economy. Economies having high unemployment rate and low GDP per capita should cultivate, motivate and well remunerate entrepreneurs (Wronka, 2013). Because traditional political and economic solutions are insufficient to provide a good quality of life for the growing population, there is a growing need for social economy. As a result, social entrepreneurship

is seen as the answer to ending poverty and transforming society (Letts et al., 2003). Social initiatives that prioritize societal well-being in business endeavors can alleviate the growing wealth gap between the rich and the poor (Dacin, Dacin & Matear, 2010).

Creating social ventures is the goal of social entrepreneurship whose principal purpose is to be mainly oriented towards marginalized groups who can participate actively in it and to provide workplaces for them. Social entrepreneurship has great influence to change the quality-of-life people lead in society and its role to initiate both immediate and long-term social changes (Mort et al., 2003). Different types of work for the society are being undertaken by social enterprises which embody the following characteristics (Wronka, 2013):

- To be entrepreneurial, innovative and risk taker.

- To be independent and autonomous in trading.

- Stakeholder engagement.

- To focus on customers and the community.

- To adapt to situations and be flexible.

- To engage in participative and democratic management.

- To produce income by selling products and services.

- To be socially, financially and environmentally responsible.

Critical Success Factors

Despite all the good social entrepreneurship is doing for economic growth and welfare of society, research on the essential elements of social companies' success is limited (Wronka, 2013). Every kind of organization, big or little, for-profit or nonprofit, domestic or international, needs a few essential success characteristics that serve as tools of analysis for examining and evaluating the characteristics of the sector in which it operates and competes.

Critical success factors were introduced in 1961 by D. Ronald Daniel due to an inadequacy of management information to set the objectives, shape strategies, make decisions, and to measure results (Khodaveysi et al., 2016). Daniel asserted that planning should be based on three to six success factors for an organization to be successful. With the advent of computer in the late 1970s and early 1980s, there was an explosion of information and John F. Rockhart, of MIT's Sloan School of Management, recognized that senior executives still lacked information to make decisions and elaborated the work of Daniel to develop the critical success factors approach (Khodaveysi et al., 2016). He suggested that an organization's system must concentrate on factors linked to organizational success. The uses of the critical success factors approach are as follows:

To determine the top management's primary issues.

To be applied when creating strategic plans.

To determine the reasons for project failure and to highlight areas that needed attention at every phase of the project's lifespan.

To assess the reliability of a system.

To identify business opportunities and threats.

To assess employees' productivity.

According to the Centre for Management and Organization Effectiveness (COME), (2021), critical Success Factors are elements which are specific to a business area, team, or a department, that should be implemented to successfully meet the strategic objectives. When the success factors are executed successfully, positive outcomes are generated and create value-added to the business. Success factors are considered as a point of reference and should be explained to everyone in the business venture. They should be aligned with the strategic goals of the business venture and used to assess the feasibility of new projects or activities. The concept of critical success factors states that 80% of the effects come from just 20% of the causes and it is not necessary to examine all critical success factors (Khodaveysi et al., 2016). A reasonable and manageable number of success factors should be kept for each project, around five, to have a clear impact on strategic priorities or other elements of the business (COME, 2021). Success factors are used to assess how a department in the organization can reach the departmental goals and help the enterprise progress towards the strategic goal. Critical success factors can be interpreted in four different ways (Khodaveysi et al., 2016):

The essential parts of the enterprise's management system.

The distinctive qualities of the business.

A heuristic instrument for refining the Manager's perspective.

A summary of the essential skills and materials needed to succeed.

The last interpretation above defines the success factor of an enterprise's confirmation of an investment it can make to stand out from the competitors. It is important to identify success factors to avoid them becoming threats to the business. There are four possible sources of success factors for an enterprise which are changeable depending on the conditions and situation the enterprise finds itself (Khodaveysi et al., 2016):

The conditions of the enterprise and the field of operation.

The position of the enterprise in the field it is operating.

The environment, preferences of clients, economic situation, and political factors.

The actual factors of the enterprise.

The identification of critical success factors for a social enterprise is influenced by its ability to attain and sustain competitive advantage. Social entrepreneurs should be aware of these success factors that deal with production, cost control, risk management and exposure. Critical success factors are grouped into five main categories as explained below (COME, 2021):

Environmental Factors – happenings which are outside the control of the enterprise such as public policy, economy, competitor's action, and new technology. A social enterprise should look out to keep informed and anticipate changes in the environmental factors which may impact on its mission.

Industry-Related Factors – tasks that must be completed by the social enterprise to maintain competitiveness in the industry and achieve the strategic goal.

Peer-Related Factors – success factors in relation to the social enterprise's position vis-à-vis the competitors or other peers in the industry. Business leaders can concentrate on success factors to maintain position and market share.

Temporal factors – although most critical factors are related to the strategic or long-term goals of the enterprise, sometime the organization may find itself in temporary situations, to be managed for a short time period and the success factors are called temporal factors.

Management position factors – are internal factors identified by managers who have a perspective on their responsibility, role and function area. This critical success factor focuses internally on areas of culture changes, continuous improvement or employee engagement.

Researchers have well characterised social enterprises with distinctive features but never touched upon critical success factors for social entrepreneurship (Wronka, 2013). There is a limited comprehensive literature on critical success factors for social entrepreneurship and most researched depend on the factors advanced for commercial entrepreneurship (Dacin, Dacin & Tracey, 2011). An examination of social entrepreneurship and social enterprise literature reveals that focus of almost all research are directed on identification of activities with regards to survival of the organization classified as normative and descriptive (Wronka, 2013). Normative research focuses on

identification of factors determining the success of social enterprises while descriptive research is centered on identifying distinctive features of social entrepreneurs. In general, while the main objective of an entrepreneurship is to turn a profit, the primary goal of a social enterprise is to help the society and create value. Social entrepreneurships tend to depend heavily on external sources of funding provided by clients, workers and helpers willing to take lower-than-market pay. While there is a lack of study on crucial success criteria for social entrepreneurship, the specifics of these elements are impacted by the similarities and variations between the public and private sectors. (Kerlin, 2010).

In general, critical success factors are identified through gathering data and analysis. Some companies even hire the services of experienced consultants to establish the critical success factors to support the strategic goals of the enterprise. Four main steps are followed to determine the critical success factors as explained below (COME, 2021):

Conduct of the SWOT analysis and examination of the key elements of the long-term strategic goals to better understand the ultimate goal and identify critical success factors to achieve them.

To revisit the organization's strategic goals based on recent trends with key stakeholders such as employees, customers, and other focus groups. To plan for the future, an effort should be made to measure the organization's current performance. This may be done by brainstorming with senior executives to discuss possible critical success factors that may help to achieve the long-term strategic goals.

To seek views, ideas, and feedback from leaders and team members. In order to express oneself clearly, inform staff members about the organization's long-term strategic goals and solicit their input on the issues brought up with senior leaders.

To combine all information gathered from the brainstorming session and feedback received from employee feedback then identify the factors that are key to achieve the strategic goals.

Social Impact Measurement

Social enterprises should identify the nature and magnitude of the challenges they intend to address and communicate same to demonstrate expected benefits by their goods and services as well as the impact on the target group (World Youth Report, 2020). Social entrepreneurs should have the appropriate tools to measure the level of social need as well as the impact of remedial measures to be able to convince shareholders, stakeholders and partners to continue providing support for their ventures. It's critical to assess the effects of social entrepreneurship to guarantee that social entrepreneurs keep acting in an ethical and sustainable manner and a lack of accurate means of measurement may lead to an adverse effect on the scope and credibility of social entrepreneurship (Littlewood & Holt, 2018). Social impact measurement is important as it is a performance-based variable related to social entrepreneurship (Rawhouser et al., 2017).

There are four main clusters of measurement models (Grieco et al., 2015). Firstly, there are models that concentrate on quantitative indicators of social impact that help to

identify costs involved to produce the impact. Secondly, models that identify qualitative variables to assist organizations visit their own activities. Thirdly, models using both qualitative and quantitative measures to assess the achievement and fourthly, there are different types of certificates requiring both quantitative and qualitative data which differs in the ongoing data collection and reporting system.

Social entrepreneurs are interested to gauge how their actions are affecting society which are reflected in their core mission so that they can report both the indicators of the social and environmental spheres that are used to measure the success of social entrepreneurship (World Youth Report, 2020). The social return on investment is a measure which is globally used to assess social impact which focuses on outputs generated by each project and provides cost-benefit analysis beyond economic indicators (Pathak & Dattani, 2014). The concept of social return on investment has a significant impact on how social enterprises conceive, evaluate, and communicate their achievements. The economic, social, and environmental outcomes that are generated by an enterprise are assessed through the social return on investment to evaluate the extent to which the venture has contributed to a specific development. Although the use of social return on investment for different types of activities and programs can be challenging to assess, social return on investment is found to be a useful quantitative metric to compare the efficiency of operations, outcomes of projects, and the social enterprises as a whole (Pathak & Dattani, 2014).

Social entrepreneurship provides a large number of intangible benefits such as self-belief and improved community cohesion and therefore it might not be possible to provide objective benefits for all. Nevertheless, qualitative information is valuable as it allows assessors to acknowledge the significance and role of social entrepreneurs in thoroughly tackling societal issues (Pathak & Dattani, 2014). To summarise, we can say that analysis and measurement of social impact is much more challenging and complex as it uses mixed methods of qualitative and quantitative indicators for analysis.

Social impact can be measured by distinguishing between high reach and high transformation that social enterprises bring in the society (Alvord et al., 2004). Even if the social enterprises cannot reach many people, differences are made in the lives of selected individuals for the programs. Social entrepreneurs have the capacity to bring about significant change and they should aim for multi-layered innovation to catalyze high levels of social transformation and reach many more people in society. This type of impact is effective and should not be underestimated. While assessing the social change and social impact, the priorities and values regarding the choice of measurement and what to measure should be identified (Arvidson et al., 2013). After identifying the suitable assessment instruments to gauge social impact, it is imperative that the social enterprise ascertains the requisite competencies or resources to conduct the measurement, and evaluation which may be a substantial burden on the administration (Hanley et al., 2015). For that purpose, social enterprises should be supported in the development and implementation of an

effective measurement and monitoring system that can be used by funders, public officials, and social enterprises.

Measuring social effect is crucial since it affects how well the social enterprise performs in its evaluation which helps in decision-making and for financial stability. A clear estimation of the social impact is used as a benchmark and provides support to the devotion of social entrepreneurs for establishing objectives, monitoring and evaluating performance (Hanley et al., 2015). Social impact assessment also helps to attract support for social development activities which were unfunded. However, the limitations experienced by social enterprises are inadequate financial and human resources to quantify social effect and measurement of intangible contribution cannot be measured or evaluated using metrics (World Youth Report, 2020).

The Relationship Between Ageing Population and Social Entrepreneurship

Ageing population is a world-wide phenomenon and according to the United Nations (World Population Ageing, Highlights, 2017), in 2017 the global population of people aged 60 years and above was 962 million, more than twice the population of 382 million for this group and is forecasted to reach 2.1 billion by 2050. Out of this figure, the rise in the number of people above 80 years old is forecasted to rise threefold from 137 million to 425 million between 2017 to 2050. Ageing population is inevitable in view of improvement in medical facilities being provided as well as a global decrease in fertility rate (Samouei & Keyvanara, 2022). The average age of populations throughout the world

is rising and Governments should look into innovative policies to tackle the needs and interests of senior citizens such as housing and assisted living facilities, health care, social protection, and social benefits (Torjman, 2018). The global increase in longevity is a historic victory and an ageing population has emerged as a significant global issue of the 21st century. The world is being severely affected by the ageing of the baby boomers' generation giving rise to pressures on health budget and retirement policies (World Population Ageing, Highlights, 2017).

According to the United Nations, the number of old people is forecasted to grow very rapidly, threefold in Africa between 2017 and 2050, followed by Latin America, the Caribbean and Asia where the population is expected to rise twofold for the same period. The older population grows more slowly in Europe with 35% increase for the above-mentioned period (World Population Ageing, Highlights, 2017). Over the past several decades, Mauritius' population has been gradually getting older. In 2000, 9% of people were 60 years of age or older (ICOPE, 2022). It is forecasted that by 2061, this percentage will have risen to 36.5%, from 18.7% in 2021. It is also calculated that the number of people 80 years of age or older will increase by more than twice, from 26,432 in 2021 to 65,461 in 2061.

As the percentage of old people increases, so does the government spending on national health expenditures, medical care, and social security. So, with the retirement of old people, not only the labor force decreases but government expenditure on them also

increases which may lead to both potential financial and labor crises (Herman et al., 2003). There is an urgency to find solutions for the challenges and opportunities presented by an ageing population as many governments would have difficulty to provide high quality care to them (Adamczyk, 2021). Governments should start to identify the problems of old age today and provide training for the young generation to become carers as it is estimated that half of the population of seniors would require assistance.

Old age should be redefined in the social dimension and coping mechanisms should be developed for probable issues that can arise throughout this stage of life (Avers, 2020). Firstly, there will be a demographic shift and a significant impact on public health as the population of people above 60 years will triple by year 2050 affecting all countries but mostly underdeveloped countries (World Population Ageing, Highlights, 2017). Secondly, studies on human development have confirmed that when talking about old age, there is no necessary decline in physical or mental performance whereby old age people should stop their social roles (Fernández-Ballesteros, 2010). Thirdly, appropriate infrastructural institution and qualified staff should be provided for people relying on long-term care due to their health condition for the following valid reasons: firstly, old age people deserve more control over their lives and deserve to receive all information about care services, secondly, the costs of care services are quite high and continues to increase and thirdly, it is the duty of governments to safeguard the elderly and vulnerable against mistreatment and social marginalisation as a result of their advanced age. As a result of an ageing

population, the labor force in general is also ageing, leaving the younger workers to represent a declining proportion of total employment.

According to Kendig et al., (2016), recognizing ageing's profound personal implications and the social purposes of knowledge are important. Individuals aim to preserve their autonomy, sense of self, and consistency in their lives as they age. Ageing is a complex phenomenon, and it is important that individual, population, and society should be distinguished from one another. Complex bio-psychosocial changes associated with ageing are anchored in the community, workplace, and family, as well as social institutions with which these individuals deal to change their relationships in society as they live. The factors that accompany demographic shifts and alterations in age structures are primarily the focus of population ageing; nevertheless, societal ageing encompasses social constructions of ageing and how older individuals are treated in social, political, economic, and cultural contexts (Kendig et al., 2016). The manner in which ageing in individuals and society is portrayed is important, however, as the variation of societal ageing is complex, it should not be based on personal views which are very limited in general (Kendig et al., 2016).

While the effects of population ageing have started to show globally since the 1980's, the phenomenon has started much before, for over a century, shown by the decrease in fertility rate. Although there was a period of baby boom around the years 1950's to 1960's, the fertility rate has decreased again globally (Kendig et al., 2016). It is said that at

present, the ageing of the population is caused by mostly the baby-boomer's generation who have reached older ages due to the massive decrease in mortality and fertility rates that occurred since the 1970's. Nevertheless, countries throughout the world have different rates of ageing. Population ageing is a matter of concern for governments as the pattern of consumption and income is affected. Normally, at older ages, there is a lower per capita consumption than per capita income and the per capita expenditure is greater than per capita taxation. Governments meet this deficit from public funds and the fiscal situation is becoming increasingly difficult as the older ages require a greater proportion of the budget (McDonald & Temple, 2013).

A Business Opportunity for Social Entrepreneurs

Many researchers advocate the term ageing well as it embodies both positive and constructive views about ageing, wellbeing, and health for a normal and lifelong experience rather than being termed old. When talking about population ageing, there should be more focus on the societal responses and opportunities rather than concentrating on the problems. The World Health Organization (WHO, 2015) defines healthy ageing as “Health is a state of complex physical, mental and social well-being and not merely the absence of disease or infirmity” and the concept of healthy ageing is conceptualized as “the process of optimizing opportunities for health, participation, and security in order to enhance quality of life as people age”. For instance, according to Borkowski and Kulzick (2023) a case study on Dementia Care was conducted in the Netherlands which investigated the influence of entrepreneurial methods in dementia care under the New Public

Management (NPM) reforms. To improve patient-centered approaches while preserving efficiency, a Dutch nursing facility created localized accountability mechanisms. These reforms demonstrated the ability of entrepreneurial models to solve specific requirements for elder care, even in the face of structural obstacles.

Although an ageing population has many consequences in many fields, older people can act as useful resources to assist in handling and solving societal challenges for improved health, satisfaction and better quality of life (Kendig et al., 2016). Social entrepreneurship is becoming a very popular and important tool to tackle the unmet needs and challenges of society (Socci et al., 2020). Social entrepreneurship is the solution as it helps to alleviate social issues, accelerate transformation of the society, and create social values and benefits by combining a number of resources to pursue possibilities for the establishment of organisations. Social entrepreneurship is a process that involves provision of products and services and creation of new business ventures and organizations to improve social wealth.

Even though the world's population is ageing quickly, it's thought that commercial enterprises are generally ill-equipped to cater to the needs of elderly consumers (Arensberg, 2018). There exist gaps between the social needs both in terms of goods and services that older consumers genuinely desire and those that may be offered in many global marketplaces. Notwithstanding the business opportunities that exist, neither the commercial sector nor commercial enterprises have placed a lot of emphasis on creating

goods and services adapted for the needs of the older people market. The needs of the senior citizens in a community are presently being addressed by government and few non-profit organisations in several countries (Arensberg, 2018). According to Van Niekerk et al. (2021), a scoping review of empirical research published within the last ten years was carried out to find out how social innovation has been used in healthcare, what barriers and enablers have impacted its functioning, and what gaps are present in the existing literature. It was found that more and more social innovation is being used to accomplish societal objectives, such as better healthcare delivery. In addition to its tangible products to address structural and societal demands, social innovation is better understood as innovation in power dynamics, social connections, and governance transformations, which may require institutional and systemic changes (van Niekerk et al., 2021).

Healthcare services have improved and emphasize the significance of good ageing behaviours such as a balanced diet and active lifestyle. To assist population aging adaptation and strengthen an active aging population, some form of social services innovation, policy development, and collaboration between the private and governmental sectors are needed (Socci et al., 2020). Social innovation involves an intentional new configuration of social action conducted by integrating a range of different stakeholders to find solutions to solve a problem in society or to satisfy the needs better than in normal situations. For social entrepreneurs, the ageing population does offer a major financial potential. Innovative solutions and services meeting the requirements of older individuals are becoming more and more valuable as societies throughout the world undergo

demographic transformations that include higher percentage of older persons. Social entrepreneurs can profit from this demographic change by investing in several business ventures (Socci et al., 2020):

By starting businesses that provide specialised aged care services, such as residential care homes, retirement homes, healthcare facilities, and day care centres. These programmes may emphasise fostering self-sufficiency, improving life quality, and offering individualised care to address the various requirements of senior citizens.

By investing in the creation of elderly-friendly residential communities, senior villages, or co-housing solutions that offer facilities and assistance to the exigencies and lifestyles of senior citizens in response to the growing need for senior housing options.

By creating and deploying technology solutions especially for the elderly can be a profitable endeavour. This includes development of applications for medication management, wearable technology for distant health monitoring, telehealth platforms, safe and well-being-promoting smart home technologies.

By developing leisure activities, wellness initiatives, and social engagement programmes for senior citizens can be a fulfilling business venture. This includes planning senior-focused travel experiences, social organisations, exercise programmes, interest groups, and cultural activities.

By launching companies that offer seniors-specific legal aid, insurance policies, retirement planning tools, and financial advising services.

By investing in a transport business to offer senior-friendly transportation and this would require skilled drivers, accessible cars, senior-friendly transportation services, and mobility solutions for those with disabilities.

Many policy makers around the world have been attracted by this phenomenon since it contributes towards social and economic development and the level of scholarly attention has increased about senior entrepreneurship which is a specific form of entrepreneurship (Minola et al., 2016). Much attention has been diverted towards this topic in recent years and many concepts have emerged such as the so-called silver economy or longevity economy and have encompassed all economic activities dealing with people of 50 years and above. According to the European Commission (European Commission, 2015), the Silver Economy is defined as "the economic opportunities arising from the public and consumer expenditure related to population ageing and the specific needs of the population over 50". Seniors are participating in the labor market at higher rates as a result of a comprehensive and sustainable approach to employing active ageing.

The participation of people 55 to 74 of age is expected to rise by 10% by 2040 (European Commission, 2007). This fast-growing social group can be tapped into two groups. Firstly, they can be reintegrated in the working life by improving their entrepreneurial behavior to keep them busy, economically and socially active in self-employment. A positive awareness of the benefits should be created, to assist start-ups and provide support to form networks for them. Finance schemes should also be provided, and

they should be encouraged to mentor young entrepreneurs. Secondly, they should be encouraged to take up temporary jobs in companies so that they can use their knowledge and experience (Kurek & Rachwaá, 2011). The tendency of older workers entering the workforce is increasing. Secondly, efforts should be made to assist in the creation of innovative and long-lasting initiatives that are able to accommodate the elderly's needs. Seniors' involvement in the workforce could contribute to a decrease in the labor shortage which renders the topic of late retirement in life a controversial concern for the employers (Zhang, 2007). According to Socci et al. (2020), an investigation conducted in five European nations namely Bulgaria, Denmark, England, France, and Spain, showcased the potential for older persons to become social entrepreneurs. Initiatives included merging multicultural populations and addressing social isolation. These programs showed that enabling senior citizens to participate actively and make decisions can have significant positive social and economic effects.

The rise in ageing population and increased life expectancy has led to demographic transition and an increase in the demand for care (Harbishettar et al., 2021). Observed is the fact that traditional familial and social assistance have decreased due to the decrease in fertility rate, more urbanization, people living in small nuclear family, migration, and a reduction in traditional social networks, but conversely, the demand for residential care homes for old age people has increased (Harbishettar et al., 2021). Operation of elderly care homes are quite expensive and due to the increase in demand and resource limitations, in many countries governments leave the management of old age care homes to non-

governmental organizations (NGOs), charities, or the for-profit private sector to operate. Therefore, there is a need to regulate institutions involved in the management of old age care homes.

These governments have stepped in to develop legislations for monitoring care needs provided by old age care homes and to ascertain the care provided and long-term outcome at the old age homes (Harbishettar et al., 2021). Studies show that older people were reluctant to use care homes because they feared to be away from their families and losing their independence, dignity, choice and privacy as well as the financial constraints. Social entrepreneurs who are concerned about this social need are operating old age care homes to provide shelter to old people who cannot live independently. They cater for the basic needs and provide nursing and special care, mental and physical care and nutrition in the care facilities for the elderly (Harbishettar et al., 2021).

In general, old age or residential care homes provide for old people who cannot manage themselves or are living on their own. They are provided with care and nursing needs and even long-term rehabilitation when the seniors suffer from complex cognitive, physical or behavioural problems (SCIE, 2014). With the rapid population ageing process, health and social care should be reformed and services to old people should be provided through these old age or residential care homes by social entrepreneurs. However, there should be proper quality control of services being provided that should be licensed and inspected on a regular basis. Care Homes should follow work ethics, be compassionate and

safeguard the human rights of senior residents. The care needs being provided by social entrepreneurs should be assessed and endorsed by specialists in the field (SCIE, 2014). As Marcus Tullius Cicero said, “Old age: the crown of life, our play’s last act” (Maffini et al., 2023). We should ensure that the needs of seniors are well taken care of to help them play their last act of life well and feel like heroes.

Ageing in Isolation

As a perceived or subjective situation, loneliness is characterized by a person's dissatisfaction with nature and/or their social connections. Lack of interpersonal interaction and disengagement from social groups and activities are two characteristics of social isolation, an objective condition (Taylor et al., 2023). In society and the media, loneliness and social isolation are sometimes confused as the same phenomenon; nevertheless, prior research has revealed that these two concepts are independent psychosocial constructs that are only weakly to moderately connected with one another. Loneliness is a subjective sensation of being disconnected from other people and a yearning for more fulfilling interactions, whereas social isolation is described as being objectively socially isolated and rarely interacting with others (Garcia & Jordan, 2022). As a result, it is conceivable to be socially isolated and lonely, lonely but not isolated, or isolated but not lonely. In addition, various health outcomes are technically linked to loneliness and social isolation.

Loneliness is an unpleasant emotional condition brought on by the feeling of a lack of sufficient social connections, either in terms of quantity or quality (Galvez-Hernandez

et al., 2023). A mismatch between the actual and intended social ties is what is meant by the subjective and negative sense of loneliness. Conversely, social isolation is defined by a real deficiency or sparse number of interpersonal connections. Therefore, those who are socially isolated cannot feel lonely if their expectations and desires are met regarding the lack of relationships (Galvez-Hernandez et al., 2023). Similar to this, if the number of connections is not both numerically and qualitatively desirable, a person may experience loneliness regardless of the number of connections. Given their similar negative consequences on health outcomes, loneliness and social isolation are frequently researched concurrently in health research despite being separate phenomena. According to recent research (Galvez-Hernandez et al., 2023) persons who are lonely or socially isolated have a 29% and 26%, respectively, higher chance of dying and are more likely to have heart and brain conditions.

Although they are two distinct concepts, there is a connection between social isolation and loneliness (WHO, 2021). A mismatch between desired and actual social contacts results in the unpleasant subjective experience commonly referred to as loneliness or "social pain". Having little or no interactions with other people and a limited network of family and non-kin relationships is the desirable condition of social isolation. Certain studies have found just a slight correlation between social isolation and loneliness (WHO, 2021). People who are socially isolated may not also be lonely and vice versa. A person's level of loneliness is influenced by both their personal and their culture's expectations of partnerships.

Elderly people often report feeling alone, and research has shown that social isolation in this population has a detrimental effect on life expectancy as well as both mental health and physical health (Choi et al., 2015). Emotional (subjective) and factual (objective) social isolation are the two distinct types of social isolation. Subjective social isolation has been defined as the perception of a lack of social resources, such as assistance from others or relationships, in the literature currently in publication. The state of not connecting with others for contextual reasons, such as having a small social network, infrequent social encounters, or abstaining from social activities, is known as objective social isolation (Choi et al., 2015). Consequently, the effects of social isolation might arise from either an objective lack of social media platforms or a subjective perception of social isolation.

Isolation and feelings of loneliness are significant socioeconomic factors of health that are often ignored, even for the elderly. Strong social bonds are essential to our overall, mental, and physical health (WHO, 2023). In some nations, every three elderly individuals report feeling lonely, illustrating the frequency of loneliness and social isolation. The WHO (2023) further reports that several studies have shown that loneliness and social isolation significantly shorten the lives of older people, overall quality of life, along with psychological and physical health. In comparison to other well-known risk factors for mortality including smoking, obesity, and inactivity, it has been shown that loneliness and social isolation have a negative impact on mortality. According to research (Garcia &

Jordan, 2022), elderly people who experience social isolation and loneliness suffer from poorer health outcomes and are more susceptible to disorders including dementia and Alzheimer's, hypertension, coronary artery disease, obesity, impaired immune systems, nervousness, and depression. As reported by leading researcher Julianne Holt-Lunstad (Holt-Lunstad et al., 2010) compared to the impacts of obesity, excessive alcohol consumption, and air pollution, loneliness can raise mortality risk by 50%. Additionally, they reduce lives and decrease the standard of life. Problematic or unfulfilling relationships and the lack of reliable ties can both make people feel lonelier. An older person's risk of loneliness and social isolation may increase with retirement and other upsetting life experiences, such as loss. Retirement, children moving away or relocating to be near their children, the passing of a spouse, partner, or friend, disability or loss of mobility, and other life transitions and disruptive events that are more likely to afflict older people can be very harmful to them. (WHO, 2021).

According to WHO (2021), there is enough data to say with confidence that loneliness and social isolation are common among senior citizens in most countries of the world. We should thus invest in ideas and interventions that are successful in reducing social isolation and loneliness in this demographic segmentation, as it has a significant impact on their longevity as well as their physical and mental health. However, there are still a lot of questions and concerns that the scholarly community needs to address.

Some researchers have identified danger signs of social isolation and/or loneliness in older persons as being more likely to experience hearing loss, have a chronic illness, live alone, or lose a friend or family member (Ge et al., 2017). Additionally, older persons in long-term care facilities have suffered particularly from the impacts of COVID-19 related isolation. According to a survey, lockdown at long-term care institutions is "fueling a mental health crisis," with residents suffering from sadness, anxiety, and irritability (Garcia & Jordan, 2022). However, although it has been heartbreaking, COVID-19 has really brought attention to the problem of social isolation and loneliness, especially among older persons, which has previously been frequently ignored (Fisher, 2021).

Many types of therapy, either in-person or online, have been created to help older individuals feel less alone and socially isolated. These include community and support groups, social skills instruction, cognitive behavioural therapy, and befriending (NIH, 2021). Reducing social isolation and loneliness can also be addressed by making communities age-friendly and boosting access to transportation, information, and communication technologies. Laws and rules addressing discrimination and marginalisation can also promote closer social bonds.

Social ties are necessary for one to thrive and live. Still, many find that as they age, they spend more time alone themselves. Living alone can put older people at risk for social isolation and loneliness, both of which can be detrimental to their health. Research have shown that social isolation and loneliness increase the risk of heart disease, depression, and

cognitive decline (NIH, 2021). One may be more likely to experience social isolation or loneliness if one is not in good health. If you're feeling lonely or socially isolated, it could be dangerous for your physical and mental well-being (Ge et al., 2017). Individuals who experience loneliness or social isolation are less likely to be healthy, stay in hospitals longer, be readmitted more frequently, and die earlier in life as compared to those who have supportive and meaningful social ties.

Despite their differences, the standard of living for elderly individuals can be significantly impacted by social isolation and loneliness, which are associated (Garcia & Jordan, 2022). Elderly people's physical, emotional, and mental health are directly impacted by their social connections. Older people can take proactive measures to lessen the negative impacts of loneliness and isolation. Older adults are inherently more prone to loneliness and isolation because of the inherent changes in health and social relationships that accompany ageing. The danger of loneliness and isolation may also be increased by the following elements (Neumann & Garbarino, 2023):

Being single.

Going through a major life transition or loss, such retiring or losing a spouse.

Having mental health conditions like depression or anxiety.

Being unable to leave because of deteriorating health, a lack of transportation, or other mobility problems.

Taking on a demanding caretaker role for a sick family member.

Feeling unstable financially.

Having few social connections.

No longer active.

Having hearing loss makes it difficult to converse.

Living in a remote or difficult-to-reach neighborhood or area.

Social isolation and loneliness can have a very detrimental effect on an aged person's health (NHS, 2022). Even if you are a single person who finds it difficult to leave the house, there are strategies to deal with loneliness. Many factors might cause someone to become socially isolated, including being age or less mobile, losing their employment, ceasing to be the head of their family, losing partners or close companions, being ill or disabled, or not having the ability to keep a job. Whatever the cause, it is shockingly simple to feel abandoned and powerless, which can result in sadness and a precipitous drop-in physical fitness and health (NHS, 2022).

Patients' education on the value of social connection can be greatly aided by health care professionals, including geriatricians (Garcia & Jordan, 2022). There is a need for preventative efforts, which may include particular tests for social isolation or loneliness and other mental health difficulties. The isolation associated with COVID-19 has caused physical and cognitive impairment in older people. Many experts concur that the community can help lessen the effects of loneliness and increase resiliency (Taylor et al., 2023). But there are two sides to this feeling. Although it is the responsibility of communities to foster connection, it is also up to people to choose carefully how they

interact with their neighbors and fellow citizens. The essential desire for social interaction has not changed over time, despite the expansion and evolution of technology. Technology has the ability to help with connection upkeep, social capital access, and even emotional support when utilized in conjunction with in-person encounters (Garcia & Jordan, 2022). Even though some senior citizens might feel unprepared to plunge into the realm of digital connectivity, they should feel comfortable approaching others for assistance. It's a good thing that more tools are being created with and for older people since that makes it simpler to use technology to support face-to-face interaction.

These are global public health issues given the detrimental effects on health and general social exclusion and loneliness are pervasive everywhere. However, many countries are investing in the policy to lessen social isolation and loneliness (Taylor et al., 2023). Unluckily, loneliness and isolation are major problems that have negative effects on one's health. Both have been connected to worsening both mental and physical wellness as well as higher mortality rates. Nearly anybody can experience social isolation and loneliness, but even while they are a growing issue among younger people, they still mostly impact people in their later years. According to Marczak et al. (2019), almost half of those over 60 years face the possibility of becoming socially isolated, and one-third will feel lonely to some extent. Social isolation and loneliness in older persons have been associated with age-related declines in life fulfillment, memory impairment, reduced wellbeing, and loss of independence. Studies have indicated that older persons who experience a lack of

social interaction over an extended period of time are particularly susceptible to detrimental effects on their physical well-being and general life quality (Marczak et al., 2019).

As people get older, loneliness and isolation might increase their chance of developing depression. Human well-being is largely dependent on social connections. The detrimental impacts of a lack of meaningful connectivity can emerge in afflicted people as physical or mental symptoms. But loneliness and social isolation are difficult to quantify. According to Neumann and Garbarino (2023), the following are indications of isolation and loneliness:

Mood swings - alterations in mood, such as rage, annoyance, or disinterest. The majority of the time, older people experience loneliness out of embarrassment and cannot communicate their feelings to their loved ones because they are too proud, which results in irritation and rage. Disengagement stems from their frequent perception that they are not being heard and understood.

Irregular sleeping patterns - loneliness and social isolation can contribute to inadequate quality of sleep, which can include sleeping disorders, short sleep duration, and disruptive night (waking up after the start of sleep and occasionally not being able to fall back asleep). Isolated people might enjoy a longer period in bed, both awake and asleep.

Appetite changes – an eye should be kept on any blatant changes in a person's connection with food. A reduced appetite could be a precursor to depression

brought on by loneliness. Conversely, over food consumption might signify a sense of desolation, particularly when you are lonely yourself.

Increase in the amount of time spent alone at home – if a relative is spending more time alone at home, away from relatives and close companions, that loneliness may be cause for concern. It could be caused by health challenges, mobility problems, or the inability to drive.

Noticeable changes in use of phone – more use of phone, more specifically by family members, may be an indication of isolation and a need for care, as opposed to decreasing phone use, which tends toward avoidance.

Increases in internet dependence - we frequently assume that seniors are not tech proficient, which is true to some level, however if the web becomes their main social outlet and they begin to use it much more frequently than normal, it can be a sign of loneliness. Despite the fact that older people can communicate with friends and family on the internet, research suggests that those who use the internet more frequently may be showing indicators of emotional loneliness.

Increases in shopping behavior - spending increases among elderly people, particularly on unnecessary stuff, might be an indication of boredom and solitude because they attempt to close a gap.

An increase in drug abuse cases - more alcohol consumption

Loneliness and Isolation – The Negative Effects on Old Age People

The health risks associated with loneliness and social isolation in senior individuals need to be addressed with more seriousness. Isolation and loneliness in elderly people can be just as harmful as smoking or being overweight (Neumann & Garbarino, 2023). Furthermore, lonely people are more inclined to disregard their health, frequently forming undesirable habits like excessive drinking and smoking while reducing their physical activity. Other chronic illnesses, such as diabetes and hypertension, can be brought on by these behaviours. Abuse in all of its manifestations, including physical or verbal abuse and financial exploitation, is more likely to affect elderly people who are lonely and alone.

Other ways that isolation and loneliness might affect a person's life include (Neumann & Garbarino, 2023):

An increase in the chance of premature death from any cause.

A 50% increase in likelihood of dementia.

A 32% rise in the possibility of stroke.

A 29% higher risk of cardiovascular disease.

Correlating with increased suicide, anxiety, and depression rates.

Increasing likelihood of becoming a target of fraud, scams, robbery or murder.

Strategies to Address Social Isolation and Loneliness

In the majority of the world's areas, Elderly people often feel lonely and cut off from society (WHO, 2021). We should invest in successful interventions and initiatives to lessen social isolation and loneliness in this population because They have significant

detrimental consequences on their longevity as well as both their emotional and physical health. The detrimental effects of being alone and socially isolated on both mental and physical well-being have caused the demand for health and social services to rise, placing a heavy financial strain on health systems. Therefore, as populations age, health and social care officials now consider it a high priority to create policies that identify, prevent, and minimise social isolation and loneliness. For instance, Marczak et al. (2019) point out that in Europe, measures are being taken to combat social isolation and loneliness. According to an international investigation into promising techniques in extended care facilities in Germany, Norway, and Canada, to look into factors that either facilitate or hinder residents' ability to participate in social activities, Armstrong and Braedley (2015) concluded that residents' quality of life can be improved by meaningful social interaction in daily activities. The location of the care facility, the design of the structure, the number of employees, the way the work is organized, and the laws that regulate it all affect whether residents are able to and do participate in meaningful daily social interactions both inside and outside the nursing homes. The existence of favorable circumstances that encourage social interaction among inhabitants, especially those that give them freedom and choice, has a direct effect on their general health.

Given its role as a gatekeeper in many healthcare systems, primary care is in a good position to recognise and address social isolation and loneliness in the elderly. Identification and characterization of loneliness and social isolation therapies, in addition to the identification of factors affecting implementation in primary care, are the goals

(Galvez-Hernandez et al., 2023). First-level care is frequently provided by primary care practitioners, who are ideally situated to connect with lonely and socially isolated people. In some situations, older persons who are socially isolated or lonely may be encouraged to continue visiting primary care services by long-lasting therapeutic relationships with primary care practitioners. However, our early investigation suggested that primary care clinicians' ability to screen for elderly people who are socially isolated and lonely may be constrained, in part because of uncertainty about what to do once such individuals are located (Galvez-Hernandez et al., 2023).

According to Neumann and Garbarino (2023), luckily a person can reduce the harmful consequences of isolation by making a number of easy modifications in daily life as follows:

Prevention before it starts - a daily routine is an essential tool that can reduce the dangers before isolation and loneliness set in. Some quick daily routines might help one to stay actively involved while avoiding loneliness such as making bed after waking up, teeth brushing, showering, having breakfast or going for a run.

Physical exercise - the key to preventing and treating loneliness and isolation in elderly people is to maintain physical activity. Regular exercise can also reduce elderly's risk of depressive disorders and anxiety, increase mental clarity, enhance sleep, and help them keep their independence and ability to perform everyday duties. Group workout class or going out for a stroll in your neighborhood with a buddy are movements that may be included in the daily routine.

Healthy Eating - prevention of loneliness can also be accomplished by maintaining a good diet. A person's whole well-being is positively impacted by a good diet, which also enhances physical health and controls emotions and feelings. A balanced diet can also lower the chance of developing chronic conditions like diabetes and high blood pressure. Keeping oneself well hydrated is also crucial as a number of unpleasant symptoms could result from mild to severe dehydration that could hinder someone from engaging in other activities.

Sleep prioritization - the significance of having good sleep is very crucial. Chronic conditions like obesity, diabetes, heart disease, and depression have all been linked to sleep deprivation. For optimal health, getting adequate sleep is not a luxury but rather a necessity.

Regular medical visits - maintaining regular medical checkups will maintain one's health and help to avoid isolation. Check-ups for the eyes and ears may make sure older folks can hear clearly and drive safely. Poor hearing, eyesight, or other chronic health issues that are considered embarrassing, like urinary incontinence, might make elderly people isolate themselves, which can result in loneliness. Additionally, it's crucial to maintain regular dental visits because untreated dental problems or the requirement for dentures might affect one's comfort and sense of self.

Marczak et al. (2019) say that measures have been taken in Europe to combat social isolation and loneliness to increase social integration, improve companionship, and provide

emotional support for older persons, however, evidence do not show consistency in the effectiveness of these programs. A few strategies used in Europe include animal interventions, befriending interventions, psychological therapy, social facilitation, services for health and social care, and leisure/skill development. The following are some of the approaches and their effectiveness:

Individual interventions – according to some researchers (Marczak et al., 2019), one-to-one therapies may enhance psychological and physical health but there is no consistency in the outcome. For instance, a study on house visits in a retirement community over a period of two months showed an escalation in social interaction, the duration of time spent engaging in active hobbies, and the quantity of planned activities. In another research case, when compared to usual care and treatment, older adults who received visits from volunteers for a 10 weeks' period reported less loneliness and demonstrated better social integration, but there was no impact on how people perceived intimacy, nurturing, and direction (Shrestha, 2017). On the other hand, research involving volunteers' weekly home visits for 6 months revealed no effect on leisure and social activities or contentment with social relationships. Same for an old age home where the residents who had never used a computer or the internet received training for same for 2 weeks but no difference was noted in the level of loneliness or the size of their social networks (Marczak et al., 2019).

Interventions conducted in groups – research has demonstrated that group-based therapies are frequently successful in preventing social exclusion and

loneliness (Marczak et al., 2019). For instance, inspiring and stimulating group activities such as art, therapeutic writing, discussions and group singing led to a decreased in isolation and loneliness in older people, enhanced their wellbeing and cognitive function, leading to a decrease in their health care costs. For instance, a hen-keeping project involving training volunteers to build hen houses and assist other older people in maintaining them as well as a psychological group rehabilitation that consisted of facilitated groups meeting once a week did not improve loneliness or social networks between these groups (Shrestha, 2017).

Interventions focused on Technology – studies explained below have demonstrated that technology-focused therapies are an effective way to help older persons feel less socially isolated and lonely (Marczak et al., 2019). A video network and a telephone befriending assistance project that allowed users to connect with family, friends, and a nurse around-the-clock helped significantly reduce loneliness in elderly users. In another study, there was a noticeable decrease in loneliness in those using email, but no discernible difference in loneliness among those using Skype (Shrestha, 2017).

While several of the aforementioned interventions have demonstrated some efficacy in mitigating feelings of loneliness and social isolation, there was a notable degree of variety among them. However, according to researchers (Marczak et al., 2019), group-level therapies may be more advantageous than one-to-one interventions, and that social activity and support are more likely to be included in interventions that are successful.

However, it should be remembered that the efficacy of treatments may vary depending on their particular content, the particular older populations to whom they are delivered, and the particular setting in which they are offered (Shrestha, 2017).

Ageing and Environment

According to Wahl et al. (2012), studies on gerontology concurs that environmental and personal resources both support healthy ageing. Nonetheless, most people are unaware of the significance of important aspects of their immediate surroundings, including their homes, public spaces, and local communities, as well as technology. Environmental gerontology and literature on the ecology of ageing provide a foundation for the importance of environment in ageing. According to the ecology of ageing perspective, old age is an important stage of life that is substantially influenced by the physical surroundings. Lawton et al. (1982) asserts that the objective physical environment is measurable, lifeless, and exists outside of the skin. Although it is generally agreed that the physical environment has the capacity to impose major limitations in older age, innovative housing solutions and new technologies that support declining abilities may also increase prospects for ageing healthily.

Ageing is a unidirectional, natural process that affects all cells and is defined by a decline in functional ability that is linked to an increased risk of disease and mortality. Individuals age at varying rates, and this variation is brought about by the cumulative impact of benefits and drawbacks in both social and physical contexts they live in (Wahl

et al., 2012). Physical, psychological, social, and cultural factors are just a few of the many components that make up the environment. According to statistics from the World Health Organization, only around 25% of the variability in longevity can be attributed to hereditary factors, with the remaining 75% mostly coming from our interactions with our environments and exposures.

Even with the increasing life expectancy and that dementia in general and Alzheimer's disease in particular are not always signs of ageing, getting older is a significant risk factor. Cognitive decline with Alzheimer's disease that manifests later in life are both largely influenced by environmental variables. Plagg and Zerbe (2021) say that people age at varying rates due to the culmination of benefits and drawbacks in the physical and social environments they inhabit. Our physical and mental health throughout life is influenced by where we live and how we eat, work, play, and socialize (CHE, 2013). The environment itself is a multifaceted and intricate collection of various aspects, including physical, psychological, social, and cultural aspects.

A nutritious diet, frequent exercise, a healthy built environment, pleasant social contact, stress reduction, and avoiding hazardous exposures are all crucial for healthy ageing, which starts even before birth (Jönsson, 2018). The geriatric population is expanding and life expectancy is rising. While there is no denying that more people are living longer, there are also a number of issues that come with it, particularly when it comes to housing, transportation, urban planning, healthcare, and social services (Jönsson, 2018).

The solution is to build age-friendly neighborhoods where we can continue to live well into our senior years. To address what has been referred to as "the demographic challenge", preventive work is required.

In order to delay the requirement for extended care as much as possible, we must build communities and environments where everyone is included, engaged, and able to live an active life, as such the following healthy environments are required for lifelong health and this is significant for each person and for society as a whole (CHE, 2013; Nicholson, 2018):

Food environment - nutrition is important for everyone's health and is required at all ages (NIH, 2022). However, as we age, it becomes even more important because a healthy diet can help us manage chronic illnesses and other health problems (CHE, 2013). Poor nutrition can be harmful to a senior's health since it can make them lose weight and weaken their immune systems, leaving them more susceptible to illnesses like the flu and the common cold.

Built environment - the built environment includes everything from our homes and workplaces to parks and playgrounds, in addition to our educational institutions, medical facilities, and long-term care facilities (CHE, 2013). Whether we are at home, work, school, or play, the built environment can have a big impact on our ability to exercise, buy healthy food, socialize, and sleep. The built environment can promote physical activity and stress relief, offer access to fresh food, and present opportunities for positive social connections if it is safe,

immaculate, accessible to everyone, and devoid of dangerous chemicals and other sorts of pollution (NIH, 2022; Nicholson, 2018). Physical activity benefits mental and physical health in all ages and is essential to reducing the risk of heart disease, diabetes, obesity, cognitive decline, Alzheimer's disease, and many types of cancer (CHE, 2013). With proper planning and upkeep, the built environment can promote and support regular activity; decrease crime and make neighborhoods safer; and reduce pollution and hazardous emissions both indoors and outdoors.

Natural environment - the natural environment must be protected in parks and wilderness areas and nourished as a vital component of the built environment (Nicholson, 2018). According to CHE (2013), being in touch with nature has such a favorable effect on people's mental and physical well-being that it ought to be promoted as a public health measure. The wellbeing of people and the world depends on protecting our air, water, land, and biodiversity of all living things.

Psychosocial environment - while social isolation can have a negative effect, frequent social connection and intergenerational learning can help preserve and even improve physical and mental health (Nicholson, 2018). People who reside in areas lacking in social cohesiveness, walkways, or safety limit their physical activity and are more prone to experience depression and obesity (CHE, 2013). Television, access to other technological gadgets, and urban development all contribute to a rise in social isolation. Our culture has mainly changed from being communal to being more personal, and we have produced a world in which we frequently live with strangers. It is encouraging that there is now a renewed

emphasis on building local economies, more sustainable communities, and fruitful intergenerational activities (CHE, 2013). A number of conditions are made more likely by long-term psychosocial and financial stress, job pressure and burnout, loneliness, and caregiver stress.

Socioeconomic environment - The socioeconomic level of an individual or community is one of the main factors affecting their health (CHE, 2013). At every level of the gradient, lower socioeconomic conditions are linked to an increased risk of disease and early death. The best investments for health are reducing poverty and increasing economic possibilities.

The vast topics of well-being have been the subject of several empirical investigations, old age homes, and neighbourhood environment in the context of Mauritius. The country's response to its rapidly ageing population is reflected in the empirical studies and reviews that emphasise different facets of elderly care in Mauritius. In 2001, Mauritius became the first nation in Africa to have a national policy for senior citizens. The government provides several social and health facilities; in 1951, the Basic Retirement Pension was established, and in 1974, it became universal. Protecting senior citizens from all types of abuse and neglect is the goal of the Protection of Elderly Persons Act of 2005 (United Nations Population Fund East and Southern Africa (UNFPA), 2022). The broader National Human Rights Action Plan 2012-2020 grants more rights and protections to older individuals. The National Strategy Paper and Action Plan on Ageing 2016-2020, created

by the Ministry of Social Integration, Social Security, and National Solidarity, is presently being carried out.

The structure for supporting senior citizens in Mauritius is well-established and includes social welfare programs, health care, and pensions. Key findings of empirical studies are listed below:

Population Ageing and Its Challenges - The percentage of Mauritians aged 60 and beyond was 18.7% in 2021. Mauritius' aging population is expanding quickly and is expected to increase to 36.5% in 2061. Health care services and social protection systems are under a lot of stress because of this demographic shift (Karlo et al., 2022). The need for structured senior care, such as old age homes, where quality of life (QoL) is a top priority, has grown because of this demographic shift. Elderly people frequently face health issues such as diabetes, high blood pressure, dementia, osteoporosis, and decreased mobility which emphasises the necessity of all-encompassing care plans (WHO, 2020).

Mental and Physical Well-Being - Seniors in Mauritius are entitled to free medical treatment, including regular health examinations, specialist geriatric services, and free use of assistive technology such as wheelchairs and hearing aids (UNFPA), 2022). Decreased family relations and fewer opportunities for social interaction make mental health problems like sadness and loneliness more common among senior citizens living in assisted living facilities (Karlo et al., 2022). There

have been reports of inadequate specialist care for dementia and other cognitive impairments, which present serious issues as well.

Social Isolation – studies have shown that many elderly people experience loneliness because of being cut off from their families and having few opportunities to contact with others and recreational activities offered in certain homes have been demonstrated to lessen this. Nevertheless, there is still little incorporation of these programs into old age home environments.

Conditions of Living - While many old age homes have basic amenities, they may lack contemporary conveniences or age-appropriate features like safety bars and ramps. Research indicates that individualized dietary planning is necessary to manage illnesses like diabetes and hypertension, and the nutritional quality in old age homes is generally satisfactory.

Several elements, such as living standards, social inclusion, and health treatment, influence the quality of life for senior citizens residing in Mauritius's old age homes. Although Mauritius has a strong system in place to assist the old, especially about free healthcare and pensions, more must be done to alleviate inequalities and incorporate creative solutions. All older individuals could live honourable and satisfying lives if elder care were provided in a more comprehensive and uniform manner.

Summary

“Entrepreneur” is a word that originates from the French verb “entreprendre” which means “to undertake” (Sobel, 2020) and has popularized by several economists when referring to the role of entrepreneurs to move resources in productive areas and create value by assuming the management and risk of a business (Jonsson, 2017). The definition has been revisited and refined by several scholars and Schumpeter pointed out that an entrepreneur innovates and uses a disruptive force in the economy to implement changes and discover new profit opportunities in the market until such opportunity is eliminated by competition through an equilibrating force (Mehmood et al., 2019). Entrepreneurs are people who innovate, identify, and create new business opportunities with the aim of extracting profits.

Richard Cantillon was the first economist to have recognised an entrepreneur as an important economic factor (Praag, 1999) and the terminology was later expanded by Jean Baptiste who defined an entrepreneur as a risk taker to create value (Martin & Osberg, 2007). There have been several theorists who defined “entrepreneurship” but the most famous was Schumpeter who built up on the basic concept of value creation. According to Schumpeter, an entrepreneur is a creative individual who uses novel combinations to innovate and alter the market, including new products, new production techniques, the launch of emerging markets, new organizations or new industries, and pursuit for fresh sources of supplies and raw materials (Prince et al., 2021). There are several definitions of

entrepreneurship which have been advanced by scholars in different contexts and periods and the meaning tends to change over time (Jonsson, 2017).

Human motivation is an important factor in the entrepreneurial process as people act to seize opportunities and fulfil higher needs to become successful entrepreneurs. This can be best explained by using the McClelland Needs Theory (Kurt, 2021). Nevertheless, for an entrepreneurship to be successful, there should be willingness and dedication from the entrepreneur to come up with innovative products and services and take risks (Deakins, 2013). There are several types of entrepreneurships and such as the concept of social entrepreneurship. Social entrepreneurship goes further as social entrepreneurs are engaged in a business venture and endeavor to solve problems of society and create value (Sepulveda, 2015). Social entrepreneurs find answers to societal issues in order to effect political and social change, just like it was done in the past by powerful leaders such as Martin Luther King, Mahatma Gandhi, and Susan B. Anthony (Thornton, 2007). Social entrepreneurship is a mechanism used to accelerate transformation in the society. However, there is an absence of a harmonized definition and different scholars in different regions have come up with an array of definitions which means different things to different people (Bacq & Janssen, 2011; Saebi et al., 2019).

Social entrepreneurs are talented and proactive to identify opportunities and show high level of risk-tolerance, and innovation (Kimakwa et al., 2023; Saebi et al., 2019). There is no universal definition as the concept has been widely contested and the

heterogeneous concept has prompted too many definitions but they all point to the finding chances and using them to create novel societal value. Three different forms of social entrepreneurship have been identified by researchers (Seda & Ismail, 2020). Firstly, social entrepreneurship as non-profit organizations whereby attention is focused to market forces and looking for more social needs. Secondly, when the second researcher sees social entrepreneurship as a group of independent social entrepreneurs looking for solution to solve a societal problem. Thirdly, social entrepreneurship as engagement of commercial businesses in socially responsible practices in cross-sector partnerships.

Social entrepreneurship is multi-level as it exists at individual, organizational and institutional levels and social entrepreneurs have five characteristics namely social vision, social networking, sustainability, innovativeness, and financial returns. To understand social entrepreneurship, it is compared with commercial entrepreneurship, from which it has evolved. Commercial and social entrepreneurship differ in terms of prioritization of economic wealth creation against the creation of social wealth (Mair & Marti, 2006). While prospects are found, assessed, and taken advantage of for financial gain under commercial entrepreneurship, opportunities are identified, evaluated, and exploited to generate social value and satisfy societal demands (Certo & Miller, 2008). The main concern of commercial entrepreneurs is the generation of economic worth and individual profits, while social entrepreneurs may have private gains as by-product while working towards their primary goals of generating social value which are just secondary gains as their objectives remain social in nature (Austin et al., 2006).

Social entrepreneurship is a complex phenomenon, and the definitions range from narrow to broad. Social entrepreneurship can be innovative with profit making to non-profit making, or a mix of for-profit and non-profit approaches. Commercial and social entrepreneurship are two components of a single entity with similarities and differences as they both belong to entrepreneurship field (Bacq & Janssen, 2011). Research under both types of entrepreneurship is phenomenon-driven and focuses on opportunities to take risks to realise the ideas (Geradts & Alt, 2022). In both cases, there is no unifying paradigm due to a lack of consensus leading to a proliferation of definitions. Both commercial and social entrepreneurship anticipate outcomes and seek returns which are measurable and quantifiable while the differences lie in the mission, performance measurement, resources mobilization and market failure.

The personality of an individual is inherent in people as they possess a psychological system that dictates the original patterns while adapting in an environment (Stephan & Drencheva, 2017). Personality traits are essential in defining a person's behaviours and due to personality traits, individuals behave differently in similar situations. An individual's subjective personal understanding, distinctiveness, principles, convictions, and past experiences can all influence their personality traits and serve as catalyst to influence the decision making of social entrepreneurs in view of risks perceived (Valle et al., 2018). There are five core personality traits and the Big Five Personality Model are used to define personality traits namely openness, extroversion, agreeableness, conscientiousness, and neuroticism (Irengun & Arikboga, 2015). Social entrepreneurs have

a mixture of social and business orientation whereby they use commercial strategies used by traditional entrepreneurs although the commitment is for a social cause.

Social entrepreneurs are faced with challenges (Broccia et al., 2022). The markets that are targeted by social entrepreneurs consist of people of lower income group and with low profit-making and do not attract other entrepreneurs (Prince et al., 2021). For social entrepreneurs to sustain in such markets, they need monetary incomes through innovative production approaches. To survive and conduct business in the long term, social entrepreneurs should have a profit-making goal when conducting social activities in an innovative manner (He et al., 2022). However, the profit-making goal is not for their benefit but is just a tool used to subsist and realise the goals which is a key factor for social entrepreneurship.

While social entrepreneurs have the power to alter our workplaces and living spaces, their importance should not be underestimated. Innovations made by social entrepreneurs brought about by the enterprise would improve the standard of living, create wealth, jobs and contribute to the economy (He et al., 2022). The need for social economy is increasing due to the fact that traditional economic and political solutions are not enough to offer a high standard of living given the growing population. Social entrepreneurship aims to alleviate poverty and transform society. However, for social entrepreneurs, securing funding is a big barrier because they frequently struggle to raise startup money.

The majority of social entrepreneurs are individuals, and it can be challenging for them to amass sufficient capital before launching the business (Hossain et al., 2021).

For a business venture to be successful, planning is based on three to six success factors (Khodaveysi et al., 2016). Critical Success Factors are elements which are specific to a business area, team, or a department, that should be implemented to successfully meet the strategic objectives and generate value-added to the business. Critical success factors are also used to assess how a department in the organization can reach the departmental goals and help the enterprise progress towards the strategic goal. The identification of critical success factors for a social enterprise is influenced by its ability to attain and sustain competitive advantage (COME, 2021). Social entrepreneurs should be aware of these success factors that deal with production, cost control, risk management and exposure. In general, critical success factors are identified through gathering data and analysis.

The nature and magnitude of challenges addressed by social enterprises should be measured. Social entrepreneur should have the appropriate tools to measure the level of social need as well as the impact of remedial measures, to be able to convince shareholders, stakeholders and partners to continue providing support for their ventures (Littlewood & Holt, 2018). Measurement of the impact of social entrepreneurship is important to ensure that the social enterprises continue to act in a sustainable and moral manner. Social impact measurement is important as it is a performance-based variable related to social entrepreneurship (Rawhouser et al., 2017).

The world is dominated by an ageing population (Ajayi, 2017) and as the percentage of old people increases, so does the government spending on national health expenditures, medical care, and social security (Herman et al., 2003). There is an urgency to find solutions for the challenges and opportunities presented by an ageing population as many governments would have difficulty to provide high quality care to them. Recognizing the deep personal meanings of ageing and the social purposes of knowledge are important. As people grow older, they strive to maintain their independence, identities and continuity in their trendy life. Population ageing is a matter of concern for governments as the pattern of consumption and income is affected.

When talking about population ageing, there should be more focus on societal responses and opportunities rather than concentrating on the problems (WHO, 2015). The rise in the ageing population and longer lifespans have resulted in demographic transition and an increase in the demand for care. Traditional familial and social support have decreased but on the other hand, the demand for residential care homes for old age people has increased (Harbishettar et al., 2021). There is a need to regulate institutions involved in the management of old age care homes. Social entrepreneurs who are concerned about this social need are operating old age care homes to provide shelter to old people who cannot live independently (Harbishettar et al., 2021). They cater for the basic needs and provide nursing and special care, mental and physical care and nutrition in the care facilities for the elderly.

“Old age: the crown of life, our play’s last act” (Maffini et al., 2023). We should ensure that the needs of seniors are well taken care of to help them play their last act of life well and feel like heroes. Social isolation and loneliness are two separate psychological notions that are sometimes mixed up, yet they are separate psychosocial phenomena (Taylor et al., 2023). While social isolation is an actual state marked by a dearth of social connections and occasional social contact, loneliness is a personal experience of feeling alone from other people and yearning for more fulfilling relationships (Garcia & Jordan, 2022). Both have detrimental effects on health, with those who experience loneliness or social isolation having a 29% or 26% higher risk of passing away and being more likely to have heart and brain disorders, respectively (Galvez-Hernandez et al., 2023).

Studies have shown that social isolation dramatically worsens the physical and emotional health of elderly adults as well as shorter lifespans (Choi et al., 2015). Subjective and objective social isolation are two different sorts. The term "subjective social isolation" describes the perceived social. While objective social isolation refers to an absence of involvement brought on by external reasons, subjective social isolation pertains to the perception of a lack of social resources. We must take very seriously the health hazards that loneliness and social isolation pose for older people. Loneliness and isolation among the elderly might be just as dangerous as smoking and being obese (Neumann & Garbarino, 2023). Additionally, those who are lonely are more likely to disregard their health,

developing bad behaviors like binge drinking and smoking while also engaging in less physical exercise.

An older person's risk of loneliness and social isolation can as well increase with retirement and other upsetting life experiences, such as loss. According to the World Health Organization, social isolation and loneliness are pervasive among senior citizens globally and must be addressed with policies and interventions (WHO, 2023). In order to help older people who are socially isolated and lonely, various measures such as social facilitation, psychological therapies, health care provision, animal interventions, befriending interventions, and leisure/skill development have been applied (Marczak et al., 2019). However, the effectiveness of these programs varies, with group-level therapies being more beneficial than one-to-one interventions. The efficacy of these treatments may vary depending on the content, older populations, and setting.

Gerontological literature emphasizes how crucial external and personal resources are to aging healthily, with the physical environment playing a significant role in old age. The ecology of ageing perspective suggests that physical, psychological, social, and cultural factors contribute to varying longevity rates (Jönsson, 2018). While life expectancy is rising, getting older is a significant risk factor for Alzheimer's disease and cognitive impairment. The environment is a multifaceted collection of physical, psychological, social, and cultural aspects (CHE, 2013). A nutritious diet, frequent exercise, a healthy built environment, pleasant social contact, stress reduction, and avoiding hazardous

exposures are crucial for healthy aging. The geriatric population is expanding, and life expectancy is rising. To address this demographic challenge, it is essential to build age-friendly neighborhoods where people can live well into their senior years. Preventive work and creating communities where everyone is included, engaged, and able to live an active life are crucial for lifelong health and society as a whole.

CHAPTER 3 – RESEARCH METHODS AND DATA COLLECTION

The elderly make up a significant portion of every nation's population, and they require the same level of respect and care as other demographic groups (Nwakasi & Roberts, 2021). As the population ages, a growing percentage of older people will eventually experience decreases in their physical or mental health, which are typically brought on by ageing or sickness. The need for senior housing facilities, commonly known as old age homes, will increase in the next ten years, and thousands more seniors will be left without essential assistance (Bulman, 2017). Elderly care facilities should offer people with minor health issues a special and comfortable place to live in, away from the busy world. The amenities of home, a social environment where residents can stay active, follow their interests, and exchange ideas with others, as well as access to medical supervision and minor medical treatment, should all be included. They should also include accessibility and safety elements. Additionally, certain young persons with mental health issues or cognitive impairments can need care from old age facilities (Nwakasi & Roberts, 2021).

The old age residential care industry has existed for many years in Mauritius but in the recent years, the number of care homes registered with the Ministry of Social Integration, Social Security and National Solidarity is on the rise and most of them are operating at almost full capacity. The senior population is facing numerous difficulties in leading a decent life as a result of changing family structures and modernity (Cummings et al., 2021). The most prevalent issues that the elderly face include loneliness, carelessness, feeling unimportant, ageing-related sickness, and lack of treatment (Wrenn & Lizardi,

2020). More housing facilities are needed, and the intent of the current study is to assess the issues and difficulties faced by the elderly in old age homes and what other facilities should be offered to give a better healthcare service to this segment of the population.

The purpose of this chapter is to elaborate on the research methodology to be utilized to carry out research in order to answer the research questions and accomplish the study's intended goals. The research onion of Saunders et al. (2019) is used to explain the steps that the researcher has undertaken to develop the research methodology. The population for the study will be defined as well as the sampling methods used to select a sample for the research and the research instrument to be adopted for the survey. Variables are also defined for each research question based on the respective hypotheses. The procedures followed to get approval of the Unicaf Research Ethics Committee (UREC) have been explained followed by the ethical assurances followed by the researcher when conducting the survey. Lastly, the researcher has given a brief overview of the steps followed when collecting data, and how such data have been analysed.

Statement of the Problem

The ageing population of Mauritius is causing demographic transitions that will likely increase the demand for aged care services, particularly old age homes. Old age homes are essential in providing housing, healthcare, and other services to elderly people who might need assistance with everyday tasks or for those who don't have family members available to help. Senior citizens get good healthcare assistance in old age homes in

Mauritius, but the problem is the gap in the quality of healthcare assistance required for residents suffering from certain common diseases among senior Mauritians and the requisite specialised training that nursing and caring staff should undergo when taking care of such residents. According to a statistical survey conducted in Mauritius by the Ministry of Finance and Economic Development in 2018 (Arensberg, 2018), the population for senior citizen (above 65 years old) has increased and the young generation population has decreased. The number of older people and their proportion of the population are both growing. According to projections (WHO, 2023), there will be 44% more people 60 and older in 2061 than there would be in 2021 (237,195 vs. 340,541). Furthermore, the average life expectancy at birth has increased significantly throughout time. Male birth expectancy increased from 59 years in 1962 to 70.3 years in 2020, while female birth expectancy increased from 62 years in 1962 to 77.2 years in 2020 (WHO, 2023). On one hand, this has led to an increase in the dependency ratio leading to a new challenge being faced by the old age industry and on the other hand, there is a change in the traditional Mauritian family structure.

The joint family structure used to be common in Mauritius whereby non-working women used to look after old age people. But according to statistics gathered by the Ministry of Finance and Economic Development (July 2018), the level of literacy among women has increased considerably, especially at tertiary level, leading to more women working. The lifestyles and family structure of Mauritians have gradually changed to nuclear family and after marriage, most people prefer to have their own privacy and opt

not to stay with their parents. Furthermore, majority of youngsters who proceed overseas for higher studies do not return to Mauritius. In these situations, the old parents who require assistance are either staying alone or sent to old age homes. There is a limited number of old age homes in Mauritius, and more specifically, with limited facilities to cater to the special needs of these people and this societal trend is directly impacting on the demand for more old age homes in Mauritius. As Dees (1998) says, social entrepreneurship means “doing business for a social cause” and social enterprises in Mauritius should respond to this growing demand to solve this societal problem. The old people should be given a better life and old age homes must be properly equipped to provide medical supervision and minor medical care and cater for their physical and medical needs as well as social and emotional needs.

Purpose of the Study, Research Aims, and Objectives

This study used a mixed method to investigate this emerging market of old age homes in Mauritius which is caused by an ageing population and has become a serious national and international social issue. But the questions that are provoked by this social phenomenon are how much old age housing facilities should be provided for the senior citizens and considering their reluctance to change residence at this age, what should be done to encourage them to move to these facilities and how to make their stay pleasant by providing for all their needs (Ball & Nanda, 2013). If supply cannot meet the growing demand for old age homes, there can be serious problems with the quality of life of older people and other implications for health care. The aim of the study is to determine the types

of old age housing facilities to be provided based on the current demand. The study has looked into the reasons why senior Mauritians move to such facilities and medical needs required taking into consideration the most common diseases being suffered by the old people. Both the quantitative and qualitative research methods have been used concurrently for gathering data. Three questionnaires have been designed for the collection of data. Firstly, a quantitative approach was used to gather information by telephone from prospective residents who have applied to get into old age homes and were on the waiting list. Secondly, quantitative approach was used to collect face-to-face information from residents of old age homes to know about the reasons they have decided to stay in old age homes, their quality of life, their satisfaction with regards to the services being offered, the difficulties they are encountering and what changes they would like to bring about to lead a better life. Thirdly, the qualitative approach was used for collection of data from employees through questionnaires with open-ended questions.

Research Approach and Design

The aim of this chapter is to provide more details on the research methodology used to answer the questions raised during the research in order to meet the goals of the study. Kumar (2011) says that research methodologies relate to various strategies for locating solutions to problems in a particular field of study that are carried out within a philosophical framework and make use of legitimate and trustworthy methods, procedures, and techniques. The method chosen by the researcher to gather, examine, and interpret data is known as a research approach (Budert-Waltz, 2021). According to the nature of the

research question, there is a plan and procedure consisting of steps from broad hypotheses to more specific and detailed data that are collected, analysed and interpreted (Ngulube, 2021).

What is Research?

The term "Research" is made up of the two words namely "Re" and "Search" which denotes a new search (Saha, 2020). So, research is an intellectual activity consisting of a planned study or activity to uncover fresh information regarding already established facts (Pandey & Pandey, 2015). Research is responsible for disseminating updated information as well as eradication of current misconceptions, correcting past errors, and enriching the body of knowledge with current facts. Research is perceived as an assortment of pursuits carried out by people with a genuine need for knowledge and an aptitude for intellect, away from the stresses of everyday life. Research is a systematic, organised, and laborious activity that uses scientific methods to solve problems (Pedamkar, 2023). Learning can be done in a variety of ways. These include intuition, revelation, authority, and the logical manipulation of basic assumptions in addition to observation, educated guesswork, and analogous reasoning. Kumar (2011) describes research as an honest, thorough, and intellectual investigation for facts and their implications or meanings in relation to a certain topic. A specific piece of study should result in or produce verified, legitimate knowledge advancement in the topic being examined (Pandey & Pandey, 2015). Research is a thorough evaluation or inquiry, particularly while looking for unique data in a particular field of information. It is the methodical phase in the elaboration of a hypothesis and in the

simplification of a problem. In an effort to increase original knowledge, research is conducted.

Clifford Woody asserts that research entails major and redefining issues, the preparation of hypotheses or suggested clarifications (Mukherjee, 2017). Data collection, organizing, and evaluation are all parts of research. It is an unusual contribution to the development of the searchable compilation of information for its advancement. It is the establishment of fact with the aid of inquiry, study, examination, and evaluation. The term "research" refers to a systematic approach in which a problem is expressed, a hypothesis is prepared, information is gathered, it is analyzed, and positive conclusions are reached, either as one of the ways to address the current issue or in the form of certain generalizations for a number of speculative formulations that could be important entrepreneurship factors (Mukherjee, 2017). All study is founded on assumptions since it is impossible to do research without making some sort of presumption about how the world works and how best to understand it.

Research looks for solutions to issues by applying scientific techniques. Identifying the truth that is hidden and has not yet been found is the main objective of research. While each research study has its own purpose, the following are some common objectives (Pandey & Pandey, 2015):

Exploratory or formative research studies – to gain new understanding of a phenomenon or to discover more about it.

Descriptive research studies - accurately expressing the characteristics of a particular individual, situation, or group.

Diagnostic research studies - to determine how often something occurs or how it relates to other things.

Hypothesis-testing research studies - to investigate the validity of the causal link hypothesis.

Research Methodology

Research methodology is the set of steps and tactics used to effectively deliver the study. It has to do with carefully organising the study to guarantee that the goals and targets of the inquiry are met. Typically, the researcher is responsible for summarizing the idea and several types of study approaches. Different categories are used to classify research methods (Pedamkar, 2023). They include a wide range of factors, including the type of data, the purpose, the nature of the study, and the research methodology. Based on research methodology, there are also case studies and interviews. In certain investigations, the investigator blends the approaches.

Broad Category – Quantitative and Qualitative Research

Under the broad category, we have quantitative and qualitative research methods. The foundation of quantitative research is the measurement of a specific quantity or amount of a certain occurrence. Its main objective is to gather and evaluate numerical data that can be used to determine averages, trends, and projections for the future. This kind of research is quantitative and belongs to one of the two main research categories (Pedamkar, 2023).

A research study employs data, tables, and graphs to draw conclusions. Unlike the results of qualitative research, this study's conclusions can be quantified and repeated. The majority of studies that use this type of study are scientific and field based. Large numbers of participants and copious amounts of data are common in quantitative research, which also has a high potential for accuracy. Methods for conducting quantitative research are as follows (Pandey & Pandey, 2015):

Experimentation Research: this method involves controlling or managing independent factors to ascertain their effect on dependent variables.

Surveys: These can be conducted over the phone, in person, or online. They involve asking a specific group of individuals or a set of questions in closed form.

Observation: recognizing any event and keeping an eye on it in its natural environment are required for this.

Secondary research: the application of previously gathered data for a different purpose.

The advantages and disadvantages of quantitative method are as follows (Pedamkar, 2023):

Advantages - It makes it possible to analyse data in greater detail, use bigger sample sizes, and make inferences about the market you are targeting. The process of collecting the study's data moves quickly since quantitative research makes use of experiments, questionnaires, and real-time data collection (Pedamkar, 2023). Because of this, the researcher evaluates the data under examination much more

quickly than with other research approaches. Researchers usually employ quantitative data when examining delicate subjects because it is confidential. As a result, this choice reduces the likelihood of generating erroneous data. Disadvantages - Because the study might not be able to be conducted in the subjects' normal settings, it could look manipulated and unnatural. It's possible that participants' remarks don't accurately reflect how they behave in real life. (Peamkar, 2023).

Qualitative method on the other hand emphasises a phenomenon's characteristics. It explores both the "what" and the "why." This kind of research aims to identify the motivations underlying human behavior, or the reasons behind why people act or think in particular ways. Opinion research would be another illustration (Rangaiah, 2021). This kind of research is done to learn viewpoints of individuals and opinions on a specific topic or phenomenon. This kind of theory-based study considers prior concepts, ideas, and investigations to characterise an issue. The researcher's prior experience is important in this case. The following techniques are included in the types of qualitative research (Peamkar, 2023):

Observations - Everything that the researcher sees, hears, or comes into contact with is painstakingly documented.

Interviews - directly probing people in one-on-one conversations.

Focus groups: in order to draw conclusions, these involve asking participants questions and stimulating discussions.

Surveys: in contrast to quantitative research surveys, these contain a large number of open-ended questions that require in-depth answers.

Secondary research: gathering already-published data in the form of images, texts, audio, or video recordings.

The advantages and disadvantages of qualitative method are as follows:

Advantages - qualitative research deals with smaller sample size than other research approaches and allows the researcher to complete research more rapidly (Pedamkar, 2023). When using this approach, researchers can gather information and collect data from participants easier, leading to a generalization that could be beneficial to the population at large. Due to its potential for intricacy and personalization, it permits a more thorough analysis of opinions and behaviors in order to create or assess a theory. Furthermore, it offers more flexibility to the researchers to explore any topic they feel is relevant and appropriate, to investigate the topic further and even alter the scene.

Disadvantages - There may be bias in the sample selection process if every individual the researcher chooses to engage in the qualitative study has the same viewpoint on the topic as opposed to a diverse group (Pedamkar, 2023). Data collecting is time-consuming since it requires work and time to sort through the components and determine what is and is not significant. Some participants could be concerned about privacy, especially when talking about sensitive topics.

Nature of the Study - Descriptive and Analytical Research

Surveys are combined with several types of fact-finding questions in descriptive research. Researchers only present the facts as they have occurred or are occurring in this form of research, which focuses on documenting the current situation as it is (Rangaiah, 2021). A strategy known as descriptive study is often used by researchers in their quest to find characteristics, frequencies, or patterns. In order to perform a thorough analysis of the data, the researcher performing analytical research must make do with the facts and data at hand and interpret them. This kind of research is commonly conducted by researchers to locate supporting evidence that validates and reinforces their previous conclusions. Additionally, it is done to generate fresh ideas on the topic of the inquiry (Peamkar, 2023).

Purpose of the Study - Applied and Fundamental Research

When a company, or, to put it another way, society, faces an issue that requires an immediate solution, applied research steps are taken to assist. Applied research is typically used to address issues that have an impact on our welfare, jobs, health, or day-to-day life (Rangaiah, 2021). This type of research is done in an effort to solve issues related to a variety of fields, including business, psychology, engineering, and education. The three primary categories of applied research are:

Evaluation research - studies in which current data on the subject is examined to draw well-informed findings.

Research and development - aims to provide new products or services that are specifically designed to meet the demands of the intended market.

Action research - aims to give companies the appropriate direction in order to deliver practical answers for specific problems.

On the other hand, the goal of fundamental research is to understand a particular natural phenomenon or to establish a hypothesis. Finding knowledge with a broad variety of applications and adding to previously held beliefs in a particular field or sector is the aim of basic research (Pandey & Pandey, 2015).

Research Design – Exploratory and Conclusive Research

The foundation of exploratory research is a theory and the evidence that supports it. Its sole objective is to look into the study's worries; it does not aim to offer definitive answers to the problems of the present moment. Rather than providing definitive data, exploratory research aims to enhance the researcher's comprehension of the issue. (Pedamkar, 2023). The techniques offer an adaptable and curious approach, yet the framework is insufficient. Because of this, the hypothesis is not verified, and the results are not advantageous to the entire community. The results' frequent connections with one another help the research. Although large-sample studies can also be quantitative, exploratory research is typically qualitative. This method is frequently called a grounded theory approach or interpretive research because of how flexible and open-ended it is.

Conclusive research has a clear technique design and seeks to address the research question. The formation, resolution, and presentation of the findings and hypotheses are

facilitated by a carefully thought-out framework. Here, the outcomes are general. Determining the investigation's objectives and data requirements is also essential since conclusive study findings usually have a purpose (Pandey & Pandey, 2015). A conclusive research technique can be used to evaluate and quantify the findings of exploratory studies. Approaches for collecting and analyzing quantitative data are often used in conclusive study designs. Furthermore, deductive research approaches are often used in conclusive studies.

Type of Data – Primary and Secondary Research

A collection of numerical or qualitative variable values is called data. Data are numbers or facts that are obtained and analysed to subsequently draw conclusions on the research topic (Ajayi, 2023). Information must first be gathered and organised before it can be presented and understood. The word "data" often refers to the state of having specific knowledge or information that already exists represented or codified in a way that makes it possible to use or process it more effectively. When a researcher gathers data first, they employ primary sources. Primary research is defined as when an investigator collects new data on a certain topic for the first time (Pendamkar, 2023). Observation, surveys, and interviews are typical methods for acquiring data.

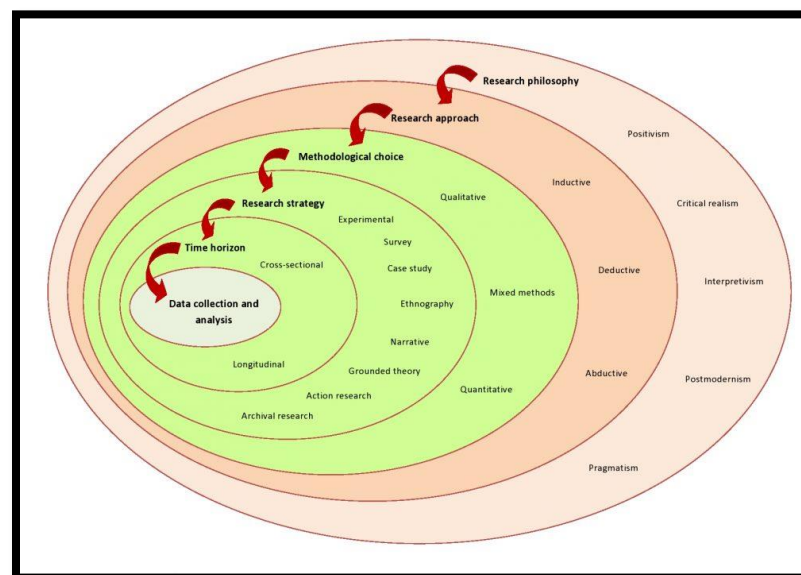
When a researcher gathers information that has previously been obtained by another source, for example, information that has been published in a scientific journal—they are using a secondary source (Ajayi, 2023). Data that has previously been acquired through primary research is used in secondary research. The majority of secondary data sources are

publications such as books, commercial publications, journals and other media. Furthermore, the researcher is not collecting primary data in this situation (Pedamkar, 2023).

The Research Onion

Saunders et al. (2019) use an onion to depict the distinct aspects of a research known as the research onion as shown below. The research onion is used to guide the researcher to undertake the important actions that should be undertaken to develop a research methodology.

Figure 3. 1
The Research Onion



Source: Adapted from *Research Methods for Business Students* by Saunders et al., 2019

There are six layers of decisions depicted in the research onion. The first layer shows the research philosophy, followed by the other layers which show the research

approach, methodological choice, research strategy, time horizon and ultimately the inner core which are the tactics and covers data gathering and analysis features.

Research Philosophy and Paradigm

Research philosophy, often referred to as the cornerstone of any investigation, is the first layer of the research onion. It explains the collection of assumptions and beliefs regarding the sources and techniques used to collect, examine, and utilize information to address certain research questions for the progress in our ability to address a particular problem (Burrell & Morgan, 2017). Every study should adhere to a research philosophy that describes the conceptual framework to help with the development of research questions, the choice of the most efficient research methods, and the evaluation of the findings (Saunders et al., 2019). However, research philosophy may be described from either an ontological or epistemological perspective. Research assumptions are referred to be ontological hypotheses when they project the facts that are encountered. Stated differently, ontology is the "what" and "how" of what we already know, such as the essence of realities and the range of knowledge and comprehension that is truly possible for humans. Conversely, the study of "how" humans learn and understand things is known as epistemology. In other words, it's the study of how we interpret reality and the boundaries of our knowledge (Saunders et al., 2019). Ontological assumptions are those formed for research purposes that project the facts experienced, whereas epistemological assumptions are those made based on human knowledge.

The study's objective is to evaluate the existing circumstances of old age housing facilities available in Mauritius and to investigate the needs of growing ageing population to ensure provision of quality services and adequately trained personnel at the old age homes. Thus, since the research questions demand information derived from human understanding, epistemological presumptions have been applied in this study. Assumptions, however, might be subjective or objective. Although there are five research philosophies namely positivism, interpretivism, pragmatism, critical realism, and postmodernism, the three most often employed are positivism, interpretivism, and pragmatism (Johannesson & Perjons, 2014).

Because society is composed of social realities that have the ability to coerce people, positivists hold that society shapes the individual (Thompson, 2015). People's behavior is usually explained by the social norms they have been exposed to through socialisation. Since quantitative methods such as sociological surveys, systematic questionnaires, and government statistics are more dependable and representative than qualitative ones, positive thinkers prefer them (Saunders et al., 2019). The positivist school of thinking places a strong focus on the value of conducting quantitative research, such as surveys on a large scale, in order to identify social trends and provide a comprehensive picture of society as a whole including the correlation between social class and educational attainment. This kind of sociology is less interested in specific people and more in patterns and trends. When doing positivist research, sociologists often look for relationships, or

"correlations," between two or more variables (Thompson, 2015). In this study, the comparative method is applied.

Unlike what positivists believe, under interpretivism, people are conscious and are more than merely puppets following the commands of external societal forces. People are complicated and multifaceted; therefore, interpretivists believe that people perceive and comprehend the same "objective reality" in a unique way. An interpretivist method would use participant observation and unstructured interviews, among other qualitative research approaches. The "social action theory" is the root of interpretivist research methods; interpretivists actively challenge positivists on the grounds that a large number of positivism's statistics are also socially created. Interpretivists contend that we need to acquire "empathetic understanding", or the ability to see the world through the eyes of the actors portraying it, in order to understand human behavior (Thompson, 2015). In brief, positivism is connected with objective presumptions according to reality and the natural sciences, whereas interpretivism is related with subjective presumptions that human views and actions shape social reality. Ontologically, objectivism combines with realism, which is an independent reality, while subjectivism embraces nominalism, the extreme variant that maintains that social phenomena are created by researchers (Saunders et al., 2019).

The third most common research philosophy used is pragmatism. Pragmatic thinking highlights the necessity to look into a phenomenon with the most powerful resources available. Approaching information from a practical standpoint, where

knowledge is continuously being understood and questioned rather than being fixed, is the main goal of pragmatic research methodology (Saunders et al., 2019). Therefore, pragmatism includes subjectivity and the involvement of the researcher, particularly when interpreting results derived from participant responses and decisions. Stated differently, pragmatism is unrestricted by any one philosophy.

In order to accomplish the objectives of the research, which include considering social facts and norms related to the aging population as well as social forces that are progressively altering society, people's mindsets, and behavioral changes, this study is predicated on the pragmatism research philosophy.

Research Approach

The second component of the research onion is the research methodology, which should be clearly defined because it typically directs decisions made about the procedure for gathering and assessing study data. This layer defines the three different types of research methodologies namely deductive, inductive, and abductive (Saunders et al., 2019). The inductive method is used when new theories and generalizations are necessary. As a result of research, inductive procedures include establishing hypotheses rather than beginning a study with a theory as its guiding concept (Phair & Warren, 2021). Through the use of an inductive methodology, a remote community that is unknown to the wider public could be investigated. Research is necessary to gain a better understanding of this social group because nothing is known about it. This would result in the creation of theories.

Conversely, however, deductive method is used to determine whether assumptions are true (Bryman & Bell, 2015). Deductive approaches begin with a hypothesis and aim to test it by empirical investigation. For example, when researching birds, a deductive approach would be utilized to examine historical changes in the physical traits of birds because it is most likely grounded in the theory of evolution. Put otherwise, the basis consists of a well-established corpus of earlier studies (Phair & Warren, 2021). Whereas quantitative research usually follows a deductive path driven by positivist ideology, qualitative research usually uses inductive methodologies. (Phair & Warren, 2021).

Abductive analysis is a form of reasoning that includes deriving judgements about the best model or hypothesis from insufficient or incomplete facts. Abductive reasoning begins by considering a lack of information and looks for the most likely explanation to disclose unexpected facts from a series of observations that are then utilized to support a conclusion. In order to arrive at a reasonable explanation for a given collection of facts or observations, abductive reasoning needs numerous phases as follows (Hassan, 2023):

Data observation – this is the initial step in the abductive reasoning process. The observer or researcher examines and gathers information from the sources that are available.

Finding the trend - the researcher searches the data for patterns or regularities. This entails comparing and contrasting the data with other established facts or observations.

Developing hypotheses - creating a list of possible hypotheses or interpretations that could explain the observed data based on the observed patterns.

Evaluation - the best hypothesis is determined as well as other pertinent factors like ease of use, coherence, and compatibility with other established truths or ideas. The most satisfactory explanation for the observable data is chosen by the researcher as the most tenable theory.

Refinement of the explanation - The researcher adapts the explanation in light of additional observations or data, which can mean modifying or rejecting the initial theory or generating new ones that better account for the data.

Conclusion - based on the most reasonable explanation that matches the observed evidence, the researcher concludes what can be utilized to drive further research or make predictions.

For the purpose of this study, It was more suitable to apply the abductive approach as the study is based on unexpected facts gathered from residents and employees of old age homes.

Methodological Choice

The research methodologies—qualitative, quantitative, and mixed methods—are covered in the third layer of the research onion. These methods are tools used to answer questions related to the study domain and to confirm the accuracy of assumptions (Yoshikawa et al., 2008). Qualitative data is descriptive, often unstructured, and describes

concepts using language rather than numbers, whereas quantitative data can be counted and measured. To address "Why?" or "How??" inquiries, qualitative data is a common tool used by researchers. which appears as text and words. Since qualitative data cannot be analyzed statistically, researchers and analysts must instead attempt to isolate relevant groupings and topics to help interpret the data. Quantitative and qualitative data differ primarily in what they reveal, how they are gathered, and how they are examined (Yoshikawa et al., 2008).

Qualitative research is a method used to analyze or investigate human interaction with regards to a social or human problem or topic that is being observed. The primary goal of exploratory qualitative research is to have a deeper comprehension of the research subjects, to obtain opinions and comprehend the perception of a certain group of individuals. Qualitative research is experimental research that comprises the collection of non-numeric data to bring more insight and meaning into what people say or do (Hennink et al., 2020). Qualitative research approach gathers, analyses, and interprets data from a small focus group through a research design from a range of choices, such as grounded theory, ethnography, and case study. Qualitative data are classified as nominal or ordinal data (Yoshikawa et al., 2008). Nominal data are used to label or categorize some variables without assigning them a quantitative value. For example, the description of eye color using terms like "black", "blue,", "grey", "brown," and "green". Ordinal data is when categories are used to put qualitative data in a natural order or hierarchy, such as asking a participant

to evaluate their exchange with your product as "bad," "satisfactory," "excellent," or "amazing".

On the other hand, quantitative research is a technique that gathers data to produce quantifiable information about the attitudes, behaviours, and methods of a specific sample of the population (Park, 2016). Quantitative research is a technique for evaluating objective ideas by looking at the connection, if any, between variables. These factors can then be evaluated or measured using various quantitative research methods (such as questionnaires), allowing the data to be examined using statistical techniques such as regression analysis. Very often, descriptive or experimental designs are used in quantitative research whereby subjects are typically measured only once. Quantitative data may be either discrete or continuous (Park, 2016). Discrete quantitative data has set numerical values and cannot be further subdivided. For example, the number of people in a bus is fixed. Continuous quantitative data can be divided indefinitely into smaller units and plotted on a continuum. Any value may be used such as the room temperature is 28.8 degrees. The main differences between the two research methodologies are the analytical objectives, the type of questions posed, the data collection technique and degree of design flexibility.

To gather and analyze both quantitative and qualitative data for a given issue, researchers employ a mixed method approach (T. George, 2021). Research that combines quantitative and qualitative data collection, employs different designs which may

incorporate theoretical frameworks and philosophical assumptions and combines the two forms of data is known as mixed methods research (Jansen, 2021). The fundamental idea behind the aforementioned kind of study is that when qualitative and quantitative methods are combined, the research problem is better understood than when they are used separately. To present a more complete picture than each approach alone, the mixed-approaches approach integrates the benefits and elements of both quantitative and qualitative research methods. In the behavioral, health, and social sciences, mixed methods research is frequently used, especially when examining complicated situational or societal challenges in team-based settings.

Research Strategy

The research methodologies listed below are explained in this layer of the research onion and can be used depending on the goals of the study:

Experimental research - finding the connection between an independent variable and a dependent variable is the goal of this kind of research. The required actions include modifying the independent variable and monitoring shifts in the dependent variable (Knight, 2010). Validating, disproving, or confirming a study theory is the aim of experimental research. While experimental research adheres to positivist research theory and assumes that information can only be objectively explored in isolation from other influences like culture or environment, deductive research tests prior hypotheses. (Dudovskiy, 2016).

Action research - The simplest definition of action research is learning by doing. This is what it includes. Action research is helpful because it highlights shortcomings or faults in the actual world for academics (Dudovskiy, 2016). The phrase "participant action research" (PAR) describes this method to action research because it emphasises a significant amount of attention on the participants—the actual people participating in the topic under investigation.

Case study research - both qualitative and quantitative approaches to research use the case study methodology. But in a qualitative approach, an extensive analysis of one or a small number of units is what a case study is, such as a team of people or an organization. In order to categorize the complexity of a group of circumstances that combines to produce a certain phenomenon, scenario, or event, a case study's goal is to provide information by documenting a range of factors (Priya, 2020). For case study research, observations and interviews are employed in the data collection procedure. The use of case study methods can offer a thorough and in-depth analysis of a situation or event, however, despite the possibility that this particular approach will support the generalization of data for the purpose of illustrating statistical results, applying the study's findings to a larger population is regarded as difficult (Jansen, 2021).

Grounded theory - A qualitative research method called grounded theory makes it easier to develop new theories. The basic goal of grounded theory is to create a new theory by drawing on the experiences of participants while they are engaged in the research process (Jansen, 2021). A researcher can develop a general explanation or

theory of the interaction generated by the opinions of a larger group of participants using a grounded theory. A theory can be developed methodically using a grounded theory, which then allows for methodical inquiry (Phair & Warren, 2021). The development of conceptual categories is the result of a complex set of research techniques. These conceptual divisions are related to one another as a theoretical explanation of the behaviours that consistently allay the principal worry of the participants in the study. With the use of grounded theory as a research design, other difficulties can appear, such as the researcher's need to discard numerous theoretical ideas in order for the analytic substantive theory to emerge (Priya, 2020). Inductive methodology is used in grounded theory research, which is typically qualitative but can also include quantitative data.

Ethnography - research on a whole culture is called ethnography. Apart from ethnicity, the term "culture" refers to any group of people, including organizations and their cultures (Dudovskiy, 2016). However, ethnography is seen as a vast field that encompasses a variety of practitioners and methodologies. However, Using participant observation in field research is the most popular ethnographic methodology. In this method, the researcher, often known as the ethnographer, engages fully as a participant in the culture being observed and makes voluminous field notes (Phair & Warren, 2021). Throughout this research process, it is crucial to keep in mind that there is no genuine conclusion to ethnographic research.

Archival research - This technique utilises materials that already exist and is developed through data analysis. This method works particularly well for historical

research and can make use of materials like manuscripts and documents (Jansen, 2021).

This research paper has used the archival, case study, and survey strategies to get information about the concept of social entrepreneurship when addressing the challenges of providing old age housing facilities for the ageing population in Mauritius. Information regarding the trend of people moving from family homes to old age homes was gathered through archival research. In-depth research into the actual, real-life setting of old age homes is conducted through the use of a case study. Employees' and residents' first-hand accounts of the difficulties they face while working and living in assisted living facilities are gathered through the use of unstructured and structured questionnaires.

Research Time Horizon

The term "time horizon" describes the duration of the researcher's investigation of the population and the researcher chooses the time horizon depending on the study's goals and the design of the inquiry (Alamgeer, 2023). The cross-sectional time horizon and the longitudinal time horizon are the available choices. It speaks about how long the study will take (Phair & Warren, 2021). Observations are frequently classified as cross-sectional or longitudinal based on the time ranges, they cover. Cross-sectional data is used when all observations are made at one point in time, as is the case with most surveys. On the other hand, observations for a given variable that span several years, quarters, months, or days are referred to as longitudinal data. The time horizon used for this research is cross-

sectional as data is being collected from the twenty selected old age homes over a period of two weeks.

Research Data Collection and Analysis

The last layer is the center of the onion where there is a need to choose the specific techniques and procedures for research which includes the search for data, and primary data collection is the first direct data gathering by the researcher using a variety of data collection methodologies (Hox & Boeije, 2005). At this stage, decision should be taken about the following (Phair & Warren, 2021):

What information will be gathered and how it will be gathered.

Select a population sampling strategy.

A content analysis or a statistical analysis like a correlation may be utilized to analyze the data in order to respond to the research questions; &

Set up the tools that will be used for the investigation.

In this study, for the collection of primary data, a mix of quantitative and qualitative approaches, including surveys, questionnaires, and observations, have been employed. Both quantitative and qualitative data were collected and analysed concurrently during the research process. The most suitable method for the topic at hand is used to collect data for the particular issue under investigation. By supplementing the existing body of knowledge with fresh material, primary data can be transformed into secondary data that can be utilized by further researchers. Data have been gathered to better understand the effects of

Mauritius' aging population, the kinds of senior housing options that are available locally, and the issues and difficulties that senior residents of old age homes encounter. The survey has also been helpful in forecasting future demand for these kinds of facilities, both in terms of quantity and type.

A mixed approach is used for three key reasons to collect data and form an opinion on the facilities senior citizens get in old age homes and what problems and challenges they are facing. First of all, there has not been much research done on the elderly living in old age facilities in Mauritius. There is a lack of data required to address the study topics. For instance, the conditions in which older adults are ageing in old age homes, how do they live, what services are offered to them, and what are the general trends? A larger net needs to be cast in order to comprehend these contextual questions.

Second, the interview guide was shaped and modified using quantitative data obtained from the questionnaire survey. In light of the results of the questionnaire survey, the interview questions were modified to appropriately focus on the key concerns. In order to interview possible participants, the management of assisted living facilities was contacted to obtain permission. This allowed the research to concentrate on individuals who had expertise providing care, required more care, and encountered more challenges as they aged.

Thirdly, a deeper and more comprehensive grasp of the research issues was attained by using both methodologies to the same study topic and a similar set of research questions. The population level patterns were shown by quantitative data. The concerns found in the first stage were further explained by qualitative data from the interviews. Qualitative data are more useful for deciphering shifting meanings and documenting people's lived experiences.

Population and Sample of the Research Study

A research population typically comprises an extensive group of people or things that are the primary concern of a research investigation. Research is undertaken for the benefit of the general population at large (Kothari, 2004). Nevertheless, due to large population sizes, it might at times be costly and unfeasible for researchers to look at every member in the community. As a consequence, researchers adopt sampling techniques from the "research population," which is a well-defined collection of things or people that have been determined to have comparable characteristics. Within a population, the majority of people or objects have some common characteristics.

Due to the challenge of testing every person of a given population, researchers came up with the idea of testing a sample of the population, which needed to be both representative of the population from which it was collected and large enough to allow for statistical analysis (Hassan, 2022). To put it simply, a sample is a tiny portion of the population selected expressly to enable researchers to conduct their study on those who

make up the population and draw insights from the results that may be applied to a larger population. In many ways, it's similar to a give-and-take transaction. The sample is given by the population, which then takes conclusions from the data in the sample.

Hassan (2022) further says that research may be conducted on two types of population namely the target population and the accessible population. The term theoretical population, or target population, describes the entire set of individuals or objects from whom researchers hope to extrapolate their conclusions. A subset of the target population is the study population, often known as the accessible population that the researchers can actually apply their results to. For their investigations, researchers typically select samples from the accessible population (Hassan, 2022).

Sampling

Selecting a sample for a study is known as sampling (Boyd, 2019; Makwana et al., 2023). The first step in identifying study population members is to compile a list called a sample frame. A sample unit is a member of a sampling frame. In order to draw conclusions from the study that is applicable to a broader population, the sample is primarily used to allow the researchers to conduct their research on members of that population. It resembles a give-and-take transaction quite a bit. The sample is "given" by the population, which then "takes" conclusions from the data in the sample. Non-probability sampling and probability sampling are the two types of sampling (Singh, 2018).

According to Mukherjee (2017), sample design is a method for selecting a sample from a given population that is part of the system analysis process. It is a certain segment of the population. The term "design" refers to a procedure or set of procedures that an investigator accepts when selecting the items that will serve as an example of the population. Determining the number of objects to include in the study is made easier by this. There are numerous types of sample design from which a researcher can select one based on their needs. Mukherjee (2017) further says that some sample designs on average are more suitable and more agreeable than others and the researcher will preferentially arrange or select a design that is acceptable for the agreed study learning and should be consistent.

A sample design is developed by following the steps below (Mukherjee, 2017):

Describing the universe - describe the total number of instances known as the "Universe". There are two types of universes: finite and infinite. A sample design with a finite number of objects is referred to as a finite universe, and one with an infinite number of elements is referred to as an infinite universe.

Sampling unit - The sampling units can be either specific people or environmental regions like a social unit, state, district or municipality. As a result, the researcher would need to select one, two, or more of these types of units for their research, as well as have a clear understanding of the sample unit.

Source list of sample units - all items in the universe are named in the source list. The researcher may need to create a list of the sampling universes that are not

provided before selecting the appropriate sample. The reference list needs to be trustworthy, exhaustive, and accurate.

Sample size - sample size chosen should meet the criteria for competency, dependability, representativeness and accuracy. Measuring the population variance is important because, in the event of a better disparity, a better example is frequently required. Because it limits the example magnitude, it is necessary to measure the magnitude of the population. Additionally, operating costs or financial constraints are important factors in determining the sample size.

Sampling Methods

One can use sampling to infer generalisations based on recognised theory or to draw conclusions about a population. (Makwana et al., 2023; Taherdoost, 2016). But ultimately, this comes down to the sampling strategy selected; these can be broadly divided into two groups: probability-based random sampling and non-probability-based random sampling.

Non-Probability Sampling

Under non-probability sampling, the task to choose a sample group is given to the researcher which makes prejudice more prevalent in the investigations. (Makwana et al., 2023). In this form of population sampling, no member of the population has an equal probability of being selected (Taherdoost, 2016). Assuming that the sample accurately reflects the target population is risky because it does not. It's also possible that the researcher specifically selected the study subjects (Hassan, 2022). Non-probability

population sampling strategies can be useful in designing case studies, pilot studies, hypotheses, and qualitative research. Since non-probability sampling typically focuses on small samples and is meant to analyse a real-world occurrence rather than draw inferences about the broader population based on statistics, it is sometimes linked to qualitative research and case study research designs (Yin, 2003). When the parameters of the entire population are irrelevant for the investigation, this sampling strategy is usually employed. As a result, it is not necessary for a sample of individuals or cases to be representative or random; rather, there must be a reasonable justification for selecting certain situations or people over others.

Some researchers use this sample technique because it is quick, easy, and affordable. The following sampling methods are not probability-based (Hassan, 2022):

Convenience sampling - the choice of a sample according to their availability and closeness to the researcher. Since convenience sampling is more cost-effective and practical than other sample methods, it entails selecting people who are regularly and readily available (Taherdoost, 2016). Students usually favor convenience sampling, and it can be used to tackle a variety of research problems. When known individuals are included in the sample, it is easier to target them than acquaintances or family.

Sequential sampling - occurs when a researcher selects one or more respondents over the course of a defined period of time, conducts his research, analyzes the

results, and, if necessary, selects yet another group of respondents. This sampling methodology provides the researcher with several possibilities to modify his research approaches and gain a critical grasp of the study he is currently undertaking.

Quota sampling - when a sample is created using a quota system, it contains the same proportions of individuals as the general population in terms of well-known features, characteristics, or targeted phenomena. To guarantee that the sample as a whole has a similar distribution of traits as the general population, participants are selected based on predetermined traits.

Purposive or Judgemental sampling - Purposeful sampling, or the deliberate selection of people with certain traits or distinctive experiences relevant to the research topic, is a commonly employed technique in qualitative research (Taherdoost, 2016). Finding and hiring individuals who can supply rich, varied data to support the research conclusions is the aim. When researchers are searching for people or groups with particular expertise, backgrounds, or experiences related to the research topic, or when they believe that certain cases or volunteers should be included in the sample, they employ purposeful sampling. (Makwana et al., 2023).

Snowball sampling – the researcher identifies possible participants in the study with difficult-to-find participants and uses them to assist persuade more cases to participate in the research, hence growing the sample size (Taherdoost, 2016). This approach is widely employed in research on specialized populations and performs

best in small, remote settlements that are difficult to access due to restrictions (Makwana et al., 2023).

However, non-probability sampling techniques have limits and might not always be appropriate, particularly in studies where representative samples are essential. Nevertheless, they can be helpful in some research contexts. For instance, for this research, it can be difficult to use non-probability sampling techniques for the quantitative portion of research on elderly homes if the sample is unknown. Non-probability sampling might not be entirely appropriate in this situation for the following reasons:

Samples obtained through non-probability sampling techniques frequently do not fairly represent the broader population. This could imply that, in the case of old age home facilities, the sample does not adequately represent the diversity of residents' needs, experiences, and backgrounds.

Non-probability sampling leaves room for multiple types of bias to enter the sample. Convenience sampling, for instance, may result in a sample that is easier to obtain, but it may also exclude particular groups or viewpoints. Purposive sampling may unintentionally bias the sample in favor of particular characteristics. Extrapolating results from a sample to a broader population is frequently one of the objectives of research. Because non-probability samples might not be indicative of the target population, their capacity to be used to generalise conclusions may be limited.

Non-probability samples may increase the difficulty of statistical analysis and make becomes more challenging to make meaningful conclusions about the population. Employing non-probability sampling techniques without sufficient rationale may give rise to ethical issues, contingent on the study question and target population.

Non-random criteria are used to choose a non-probability sample and because certain members of the population are more probable to be included than others.

Non-probability sampling frequently produces biased samples since certain members of the population are chosen through non-random sampling and have a higher chance of being included than others (Vehovar et al., 2016). However, sample bias can be prevented by using rigorous research design and sample techniques as follows:

Establish a sampling frame (the list of individuals from whom the sample will be collected) and a target population.

Match the sampling frame as closely as possible to the target population.

Make online questionnaires brief and user friendly.

Follow up with those who don't reply.

Avoid convenient sampling.

Increase the sample size and make use of mixed method – multiple methods used for collection of data called data triangulation. Data triangulation is utilized to provide different viewpoints on the same issue, thereby validating and reinforcing study findings.

In conclusion, non-probability sampling techniques may not be the best choice for studies where representative samples are essential, as those involving elderly care facilities, even though they may be acceptable in other circumstances.

Probability Sampling

However, probability sampling is also known as a sampling technique since it is based on probability and comprises choosing a sample at random from a bigger population. Because the sample is picked by a methodical, objective process, every sample unit in a group is equally likely to be selected (Rahman et al., 2022). Probability sampling serves as the foundation for random sampling which is most commonly used in experimental research. Randomization is used to pick samples, ensuring an equal likelihood of selection for every sample and decreasing or completely removing bias. The target population is typically fully represented in the sample, which increases the generalizability of the prediction made from it, lowering the researcher's level of bias and improving the caliber of the results (Rahman et al., 2022). The following types of probability sampling are used (Acharya et al., 2013; Makwana et al., 2023):

Simple random sampling - the most fundamental sampling strategy based on probability. To select the desired number of participants at random, the researcher only must guarantee that the entire population is represented on the list. Each occurrence within the population has an equal probability of being incorporated

into the sample when using a basic random sample. However, basic random sampling has a number of drawbacks (Ghauri & Gronhaug, 2005):

Complete frameworks, or lists of every population unit, are required.

If the units are far dispersed geographically, getting the sample for some studies—like surveys involving in-person interviews—may be expensive.

Errors in standard estimating can be rather large.

Systematic random sampling - is comparable to an arithmetic progression where any two subsequent numbers' differences are the same. In systematic sampling, every *n*th instance following the selection of a random start (Taherdoost, 2016). For example, you may choose to include every fifth customer in a sample of consumers in your survey. One advantage of this sampling strategy is its ease of use.

Stratified random sampling – is referred to as proportionate random sampling whereby participants are originally divided into groups based on factors such as age, socioeconomic position, or gender. Makwana et al. (2023) say that after the population has been split into strata, each subgroup has a random sample selected from it in stratified sampling (or subgroups). An organic grouping of items is called a subgroup. Subgroups may exist according to variables such as occupation, gender, or size of the organisation, to mention a few. Stratified sampling is widely employed when there is a lot of variety within a population. Ensuring equitable representation for every stratum is its objective.

Cluster sampling – when a simple random sample would be practically impossible due to the vastness of the population, cluster sampling is used. The researcher first randomly selects a number of places, then selects individuals in these areas at random. Using the probability sampling approach of cluster sampling, researchers use the population to be divided into multiple groups (called clusters) for research purposes. The final sample then includes a random sample taken from each of these clusters (Taherdoost, 2016). Due to its efficiency in terms of both time and money, cluster sampling is helpful for researchers whose participants are spread across large geographic areas (Makwana et al., 2023). Cluster sampling phases can be summed up as follows: Choose a cluster grouping for the sampling frame (e.g., company type, geographic area); give each cluster a number; and then choose a sample using random sampling.

Multistage sampling - includes combining two or more of the aforementioned sample methods. In multi-stage sampling, a methodical approach is used to get from a big to a narrow sample. The selection of samples that are focused on a small number of geographic areas is the primary goal of multi-stage sampling (Rahman et al., 2022). This also saves time and money. It is not appropriate to utilize a single type of probability sampling in the majority of complicated research projects conducted in the field or in the lab.

Sample Size

The number of participants needed to accurately represent the population is known as the study's sample size (Kibuacha, 2021). To be certain that the total sample accurately reflects the community as a whole, it is crucial to consider the sample size, which is the total number of respondents included in a study. To allow for the avoidance of biases and sampling errors, generalisation from a random sample must be large enough. What is sufficient relies on a number of factors that frequently confuse persons doing surveys for the first time (Makwana et al., 2023). This is due to the fact that, in this instance, the exact size of the sample chosen considers the intricacy of the population, the researcher's objectives, and the types of statistical manipulation that will be done during data analysis matters more than the sample's percentage of the research population.

A sample size that is too small does not accurately reflect the population under study and a big sample size may significantly raise the time and expense needed to conduct the study, even though larger sample sizes result in more representative results and smaller error margins (Kibuacha, 2021). One may be more confident that the responses fairly represent the population if the sample size is higher. Basically, higher sample sizes do reduce sampling error and confidence interval will be lower for a given confidence level, but they do so at a slower and slower rate.

There are several methods for calculating the sample size from the intended population. and one of them is the Taro Yamane formula that was created by Taro Yamane

in 1967 for students in the social science and statistics field (Israel, 1992). However, one must be aware of the study's population in order to apply this calculation to get the appropriate sample size. Yamane (1967) offers a formula that is simplified for figuring out sample sizes. According to Yamane (1967), the Taro Yamane formula is as follows:

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

whereby, n - sample size,
N – Population of the study E – Margin error in the calculation

Population for the Study

For instance, The aim of this research is to look at the emerging market of old age homes in Mauritius. The total number of old age homes registered with the Ministry of Social Integration, Social Security and National Solidarity as of July 2022 is 52. The target population for the study was therefore 52. However, the number of people residing in each of these homes was not readily available and was known only at the time of calling the selected homes for the conduct of interviews. The study population of residents was not known initially and was calculated on the spot by using the Taro Yamane formula upon receipt of the number of residents for each home. Information about the study population has been captured in the next chapter, namely, Data Collection.

Sampling for the Study

There are three groups of participants in the study namely prospective residents, residents and employees of old age homes. Interviews have been conducted by using three distinct questionnaires for the three groups of participants.

The selection of participants among residents was done through a multistage sampling technique that combines two or more probability and non-probability sampling techniques to ensure that a high degree of confidence is maintained, and any bias is eliminated. First, cluster sampling has been used to select an accessible population from the population of 52. The homes were grouped in 8 clusters of 5 homes and 2 clusters of 6 homes. Each cluster consisted of a mix of public and private homes from different areas of the island such as rural, urban, and coastal regions. Four clusters were selected randomly to get between twenty to twenty-two old age homes to be part of the study. Once the number of residents in each of the selected homes was known on the survey day, the Taro Yamane formula was applied to get the sample size of residents for each home. Second, from the selected sample, purposive sampling was done to select a sample of residents as participants for the study leaving out residents suffering from Dementia and Alzheimer as exclusions in the study. The objective of purposive sampling is to create a sample intentionally in view of generalizing and there was no random selection of units from the whole population. Purposive sampling is a recognized sampling technique used in qualitative research to assist the selection of individuals, groups, organizations, divisions, departments, and documents as well as the units of analysis (Bryman & Bell, 2015). Third, non-probability sampling was used to deliberately chose the participants in the research study to ensure that there was the same proportion of men and women interviewees, and the samples for each gender included elderly individuals both requiring assistance with day-to-day living and those who do not need assistance. However, most of the residents in

old age homes are females and as such, all eligible males were taken on board for the survey.

For the interview of employees, once the number of employees working in each of the selected old age homes was known, the Taro Yamane formula was applied to determine the sample size of employees. Non-probability sampling, more specifically convenience sampling, was used to select the second group of participants from old age home personnel namely the Manager, Nursing Officers, Personal Care Attendants and other staff from the administrative cadre. This information has been captured in the next chapter under “Data Collection”.

Materials/Instrumentation of Research Tools

Selecting a group research method begins with the first two steps of identifying a problem and formulating a research question. An important component of research is a topic of interest, also known as a phenomenon, setting, circumstance, condition, or issue that has to be defined, explained, forecasted, or understood (Hollingshead & Poole, 2011). Selecting a group research method is frequently done after the issue has been recognized and a research question developed that is supported by relevant literature. In general, the choice of method should be influenced by the study question (Sileyew, 2019). There are, however, important exceptions to this generalization. For instance, researchers who create new statistical methods and approaches might look for a problem domain or dataset that satisfies the presumptions and needs of their method. The first step in conducting research

can be the simplest, but it requires patience, persistence, and time. There are several issues to research and numerous ways to find an issue.

According to Hollingshead and Poole (2011), the first method for doing this is via reflection and interaction with the literature on groups whereby a theory that need to be tested in a unique circumstance should be identified and then put forward the different ways to explain a finding in an empirical article or get an idea for a new line of inquiry from a discussion section. A second method of finding a problem involves direct observation, where a peculiar occurrence or intriguing practice is noted and the cause and circumstances of it are investigated (Sileyew, 2019). The incentive structure, at least on the surface, might indicate that members should not exchange information freely in a community of rivals online, or you might have observed a charismatic person persuade a group to behave in ways that clearly go against what's best for them. Direct experience is the third option, and it can be the most fruitful because it is personally relevant and can give some knowledge that will help in the search (Hollingshead & Poole, 2011).

Once the target problem is identified, the path gets more treacherous. Forming a research question is the next stage. A good research topic poses a query that directs your investigation while defining the problem, outlining the context, establishing boundaries, and setting boundaries (Sileyew, 2019). The process of developing a research question involves iteratively defining, redefining, and restricting the issue through reviewing the pertinent literature. Some researchers use a concept map to link together subjects,

hypotheses, and findings in order to develop research questions inductively (Pandey & Pandey, 2015).

A researcher utilises an assortment of methods or instruments in order to gather data. Tests are tools for measurement that help researchers acquire and analyse data. The complexity, use, interpretation, and design of tools might vary. Every tool has a specific purpose in acquiring data. The available tools must be selected in order to provide the data required for hypothesis testing. When the tools available for the job are insufficient, the researcher may occasionally need to modify them or develop new ones. (Pandey & Pandey, 2015).

A device used to collect, measure, and analyse data regarding a research topic is called a research instrument. Tests, surveys, scales, questionnaires, and even checklists are means of acquiring information and are used as research instruments (Munir, 2017). They function as instruments for gathering data, like reading, watching, questioning, and holding interviews. The validity and dependability of any research project primarily depend on how carefully the research instruments are chosen; in other words, the validity and dependability of the instrument picked must be guaranteed by the researcher.

Regardless of the data collection strategy, it needs to be thoroughly assessed to see how likely it is to yield the intended results. A research tool that has received validation is considered legitimate and dependable. It should be able to collect data in a manner that

makes sense for the research topic that has been put forth. In addition to supporting or disputing the study's assumptions, the research instrument needs to be able to assist in addressing the goals, objectives, and research questions. It should be clear how the research tool should be used appropriately, and the way the data is gathered shouldn't show any bias.

Different Types of Interview Research Instruments

An interview usually consists of the interviewee verbally answering the interviewer's questions one after another. There are several types of instruments that can be used to conduct research interviews, as discussed below.

Questionnaire

One method of collecting data that is commonly used in normative research is the questionnaire. This is a well-designed form or document with a set of questions used to elicit responses from research informants or survey participants in order to collect data or information (Munir, 2017). This type of inquiry paper includes a carefully thought-out, methodically organised set of questions with the goal of extracting details that will clarify the nature of the subject under investigation. It's a form with several questions about a topic or topics that the answer should cover. The respondents are the population samples used in the study. The responses from the respondents provide the information for the report (Annum, 2017).

How well a questionnaire functions as a data collection instrument depends on how it is designed and administered, how it is distributed, and how respondents are contacted

to reclaim their questionnaires (Goode & Hatt, 1968). These modalities have an effect on the quality and dependability of the collected data. It should be mentioned that responding to the questionnaire is not obligated by the respondent. Therefore, it is necessary to persuade the respondent to answer the questions with correct information

According to Pandey and Pandey (2015), a good questionnaire should include the following qualities:

It should cover a relevant or important subject.

The significance of the study is clearly emphasized either on the questionnaire itself or in the cover letter.

It exclusively looks for information that cannot be found in books, reports, or records.

It is as brief as it can be, just long enough to get the important information.

It is neatly structured, appealing to the eye, and obviously copied or printed.

Directions are comprehensive and unambiguous, and key phrases are defined.

There are no tips, suggestions, or hints; the questions are straightforward.

Simple to complex questions are presented in succession.

Avoid using adverbs, double negatives, and descriptive adjectives.

Avoid asking questions that need combination of two questions into one.

There are sufficient options for the questions.

Data can be tabulated, compiled, and interpreted with ease.

However, the use of questionnaires has both certain advantages and disadvantages (Pandey & Pandey, 2015).

Advantages of Using Questionnaire

It is very cost-effective.

The process saves time.

It covers a broad range of studies.

It works really well for unique responses.

It is most dependable in unique circumstances.

Disadvantages of Using Questionnaire

We only receive a small number of responses.

A lack of direct communication.

More likely to provide incorrect information.

The likelihood of receiving an incomplete response is higher.

Illegible responses can occur occasionally.

It might not be helpful in many situations.

Munir (2017) points out that surveys can be created in either structured or unstructured shape also known as closed and open-ended forms respectively.

Structured questionnaires - these are the ones in which the respondent is provided with some guidance or control over the response. This can be referred to as closed form because the questions are brief and just need the respondent to select a

response from a list or to say "yes" or "no". Questions that only accept a yes or no response are known as dichotomous questions. From a set of multiple-choice answers, the respondent may additionally select the one that most closely matches their own viewpoint. The respondents' only options are those that are presented to them (Annum, 2017).

Unstructured questionnaires - also referred to as open-ended or unconstrained questionnaires, they ask respondents to provide a free-form response in their own words. The respondent reads the questions and offers the responses. Unstructured questionnaires are frequently formulated around open-ended questions which provide data that is more reliable since respondents are able to express what matters to them in their own words. However, the data is difficult to evaluate, and understanding is necessary for its usage. Answers are coded by putting them into categories (Trueman, 2015). Additionally, it has questions that let the respondent select from a list of options before sharing their thoughts. It is common practice to include spaces for respondents to write their remarks (Annum, 2017).

Interviews

Interviews become significant when researchers feel that they must meet with individuals face-to-face in order to exchange ideas and generate conversation that borders on mutual interest. It is a conversation in which the interviewer speaks to the interviewee and asks questions in an attempt to get an oral response (Annum, 2017). A typical interview consists of the interviewee answering the interviewer's questions verbally in succession.

There are many different types of instruments used to conduct research interviews. Research interviews require the researcher to specifically identify a potential source of data and structure the interview to extract relevant information from the subject. Thus, the creation of a cordial atmosphere is essential to the success of this kind of connection. In addition to in-person interviews, they can also be done via computer terminals or video conferencing technology over the phone. Formal, informal, and completely unstructured interviews are among the several forms of interviews (Easwaramoorthy & Zarinpoush, 2006). The four primary forms of interviews are focus interviews, non-directive interviews, structured interviews, and unstructured interviews.

Structured interviews are formal as they are conducted by asking a set of questions to each respondent, called an interview questionnaire, and recording their answers using a systematic and traditional approach on a prearranged schedule (Easwaramoorthy & Zarinpoush, 2006). It is therefore acceptable as a closed interview setting. The interviewer adheres to a predefined format and tries to formulate questions in the sequence specified on the interview form during a structured interview. Interviewers need to continuously ensure that the interview setting is welcoming in order to establish a relationship with interviewees.

Unstructured interviews are a less formal sort of interview, which gives the interviewer complete control over changing the questions' order, wording, and occasionally adding new ones as the interview goes on. (Easwaramoorthy & Zarinpoush, 2006). Consequently, in order to keep on course, the researcher must

proceed with prudence. Often, the tone is casual. This is known as an “opened scenario” since there is more flexibility and freedom in the connection.

The non-directive interview, also known as the unguided interview, allows the responder an excessive amount of freedom to communicate her or his ideas in a way she or he wants or is able. The questions in this format are not predetermined. It is the most appropriate style of interview to utilize when looking into problems where the respondent needs to be given unrestricted time to speak about a broad subject that would inadvertently expose personal goals, emotions, attitudes, and so on (Easwaramoorthy & Zarinpoush, 2006).

Focus interviews, as the name implies, concentrate on the respondent's subjective opinions and experiences regarding the topic in order to elicit more data. By using linguistic cues that act as a stimulant to encourage respondents to disclose additional information about the subject, researchers can give the non-directive interview more control. The researcher might nod in agreement as the story develops or chime in with an interesting query to help the conversation move along (Easwaramoorthy & Zarinpoush, 2006).

Transcribing

Researchers now rely on transcriptions of audio-visual recordings on CDs and DVDs as important sources of soft data for gathering data (McMullin, 2023). It is necessary to transcribe this intangible data as well as any spoken exchanges with respondents that

were captured during interviews. (i.e., accurately translate the voice sound into words). This is a crucial tool in linguistics since it allows for the systematic representation of recorded speech in a particular language. It is also possible to translate a written communication from one language into another. This is typically referred to as translation (McMullin, 2023). Any speech or interview that requires transcription must be done using the original recordings. Even though non-verbal cues like hand, face, and body gestures are constantly present in interviews, they must not in any way affect the transcription. Additionally, it is improper to substitute one's own words for those of the respondent when transcribing.

Observation

This style of data gathering includes the examination of images, videos, audiotapes, artifacts, computer programs, and films. In order to allow informants to communicate their reality to researchers directly, the approach should be unobtrusive. It is original and visually attention-grabbing. A photographer or a video technician may be obtrusive and affect how people react (Annum, 2017). One of the most important methods for obtaining comprehensive data in qualitative research is observation, particularly when a combination of oral and visual data becomes necessary for the study. An audio-visual recorder is obviously necessary for a researcher to compile all of this detailed data. By using the observation strategy, researchers can obtain first-hand information about things and fascinating activities like durbars and festivals (Annum, 2017). Facts and records can be manipulated with the barest of probability. Sketching is a technique used by fine artists,

industrial artists, and graphic designers while they watch nature to gather information for design-based research. The researcher has two options while using this tool namely participant observer or non-participant observer.

Annum (2017) says that as participant observer, the researcher moves in with the study participants and records and observes the features of the subject of the research. This enables the researcher to witness firsthand the occurrence that is the subject of their examination. He is visible to the study participants, but he conceals his true identity as a researcher. The researcher can communicate with informants directly by using this technique. This specific kind of observation entails a covert investigation, which can involve private information that informants would feel uncomfortable disclosing.

The researcher does not live with the study participants in their role as non-participant observer. The researcher watches the subjects of his or her research while they are aware of his or her identification as a researcher, without actively taking part in the situation being examined (Annum, 2017). This approach is sometimes questioned because it could lead to people acting neutrally simply because they are being watched, which would invalidate the information gathered.

Reading of Documents

Reading is mostly used for literature reviews, but it can also be used to analyze both public and private materials, including letters, biographies, diaries, newspapers, meeting

minutes, and to gain access to the language and words of informants who might not be living at the time of the research. This method has a restriction in that the documents might be classified as national security materials or confidential documents, preventing researchers from obtaining them. The researcher and the informant can both study letters and diaries as it suits them.

Schedule

A schedule is used when a researcher is employing a series of questionnaires for interview purposes. The term "schedule" is typically used to refer to a group of questions that are asked and answered by an interviewer when two people are face to face (Goode & Hatt, 1968). As a result, a schedule is a set of inquiries created and presented with the express intent of verifying a presumption or hypothesis. Interview occupies a central position and is essential to the timetable technique. Actually, rather than the quality of the questions asked, the success of the usage of a schedule is mostly influenced by the interviewer's skill and sensitivity as the interviewer poses the questions and logs each answer. (Pandey & Pandey, 2015).

Research Tool for the Study

Three main categories of participants have been identified as participants in the study, namely the prospective residents, residents and employees of old age homes. Based on a review of the literature with regards to research tool, the tool chosen for the study is questionnaire which has undergone validation and is a reliable research tool. The questionnaires have taken into consideration the goals and objectives of the study and have

also supported the hypotheses. Three distinct sets of questionnaires have been prepared for each category of participant, to be used properly, without exhibiting any bias when data was collected.

Questionnaires have been used to collect data quickly, effectively, in an affordable manner and the attitudes, preferences, intentions, and behavior of the respondents could be gauged well. The use of questionnaires has also enabled the choice of a target audience from the sample of old age homes as residents suffering from Alzheimer and Dementia were not included in the study. In view of sanitary measures that were ongoing at the time of survey, following the COVID-19 pandemic, some institutions did not allow physical visit. Therefore, one of the advantages of using questionnaire was that the document could be sent electronically to all the selected old age homes when seeking permission for the conduct of the survey. Due to the sanitary protocols that were in place for each institution, the researcher either visited the respondents at the old age homes for the conduct of the survey or the questionnaires were left with management to be filled by residents. It was reported that residents were assisted by management to fill in the questionnaires which were subsequently collected by the researcher.

Both qualitative and quantitative data were gathered with the mix of opened and closed research questions. The first and second questionnaires were structured and were used for prospective residents and residents respectively, with brief questions and the answers being a choice of either “yes” or “no” or a short list of possible answers for the

respondent to check the most appropriate answer/s. Such surveys typically have low levels of involvement of the researcher conducting the survey and high levels of participation from the survey respondent. Direct and focused questions were asked in an organised manner to gather a large amount of useful information from the residents to get an in-depth understanding of the thoughts of the vast majority of people who responded to those questions. Closed-ended questions were strict and inflexible, thus leaving minimal room for ambiguity in the mind of the senior residents. However, a few open-ended questions have been set in the questionnaire for residents as well to allow the respondents to provide their views in their own words and express their comments, ideas and recommendations.

The third questionnaire was meant for employees working at the old age home such as nursing and other medical staff, personal care assistants, and administrators. Most questions in the unstructured questionnaire were open ended requiring the respondents to frame their answers by expressing their views in their own words in the space provided. Here the respondents had to work harder to come up with an answer, placing a higher cognitive burden which may lead to a drop in response rates and perhaps poorer data quality. But on the other hand, they could generate deep insights that gave color and depth to the black and white of structured questions about life and work at an old age home.

Pretest of Questionnaires

Pre-testing is the process of using a small sample of the population to administer the data collection tool in preparation for the large-scale survey (Hurst et al., 2015).

Researchers can make sure that the questions are well-stated and that the answers are thorough, pertinent, and non-exclusive by using a pre-test. Should issues arise during the pre-test, it's probable that comparable issues will surface during the full-scale administration. Pre-testing is done to determine potential solutions to issues that may arise with the data collection tool despite the fact that not all problems that occur throughout the data collection process can be anticipated beforehand (Hurst et al., 2015). Respondents might not understand the terminology used in questionnaires or interviews, and information that needs to be extracted from documents might not always be easily accessible. Pretesting data gathering tools is necessary to get errors down to manageable levels. Pretesting should be carried out on population members who are as like those who will be sampled as possible, and under conditions that closely resemble those of actual data collection. It is important to keep thorough notes on any issues discovered and to identify potential fixes.

For this research, a pre-test was carried out using a small sample of ten senior citizens to accurately determine whether the questionnaire was being completed correctly, whether the questions asked had been comprehended by the respondents and if they were asking what were meant to be. Respondents to the pre-test completed the questionnaires successfully and provided their opinions to the researcher by replying to follow-up questions and the researcher seeking clarification on responses.

Operational Definition of Variables

Concepts are a generalized idea of anything meaningful and might be based on actual phenomena and defining the concepts being studied is the initial stage in the measurement procedure (Volchok, 2015). Although research can be explanatory, exploratory, or descriptive, most scientific studies tend to be explanatory in nature, looking for possible reasons for observed natural or social events (Bhattacharjee, 2021). The formation of concepts or traits related to objects, events, or people that may be generalized is necessary for explanations. Concepts are quantifiable through both direct and indirect observations. However, there may be several levels of abstraction for concepts (Volchok, 2015). Certain concepts are specific and concrete, while others may be more abstract and cannot be visualized. An abstract concept is known as a construct used in scientific research to give specific meanings and to determine exactly what they mean and what they do not mean. Numerous variables are used to measure constructs which are not readily observable or quantifiable and are regarded as latent variables. A variable is a word that is frequently related to, and occasionally used synonymously with a construct (Bhattacharjee, 2021).

Because operational definitions define things in terms of how they will be objectively measured, they are essential for scientific investigation (Bhattacharjee, 2021). It is customary to think of quantitative data as including variables and the notions for these variables come from either the study questions or hypotheses (Blaikie, 2003). The notion must first be defined in terms of the significance that it will have for the research in

question. The investigator classifies the variables into two groups: independent and dependent variables (Apuke, 2017).

The dependent and independent variables are given a special designation that is only applied in experimental investigations. It is believed that the independent variable, which the experimenter manipulates or adjusts, directly affects the dependent variable (McLeod, 2019). The dependent variable is the result that the independent variable produced and to control the problems caused by the independent variables, the researcher must evaluate the dependent variables and alternatively, the cause or contributing elements on another variable or dependent variables are known as independent variables (Apuke, 2017).

In a well-designed study, the only main distinction between the experimental and control is the independent variable. Since the variable under test and measurement is reliant on the independent variable, it is referred to as the dependent variable. We need to operationalize the variables, that is, determine precisely how the independent and dependent variables will be evaluated, in order to confirm that cause and effect have been established (McLeod, 2019).

Operational variables, also known as operationalizing definitions, define how one can measure and characterise a certain variable when it is employed in research (Bhattacharjee, 2021). The main advantage of operationalization is that it usually provides

an accurate and impartial description of even complex variables. It also facilitates the process by which other researchers can replicate a study and evaluate its reliability (McLeod, 2019). The use of operational definitions in assessing the concepts and variables we are examining or the terms we are using in our research documents is one of the keys to successful research, in addition to proper planning.

In this study, both independent and dependent variables are used. The evaluation does, however, highlight a few categories of factors that are helpful for quantitative research as well as certain controlled variables that have no effect on the dependent variables. For the quantitative part of the study, the researcher focuses more on quantitative variables, even though most of the variables will have definitions. The researcher will classify the dependent variables according to their significance, and will be discrete and ordinal (Apuke, 2017). The questionnaires contain various question groups that specify the methods used to measure the various variables. Some questions of the questionnaires capture demographic data, and the remaining question capture data about life in old age homes from a resident and employee point of view.

Operational Definition of Variables for Research Question 1

What is the impact of old age housing facilities on ageing population in Mauritius?

As mentioned before, population ageing is one of the most important societal problems of the twenty-first century leading to changes in the society and according to the United Nations (2019), death, fertility, and migration are the three main demographic

variables causing the world's population to age. More and more senior people want and need a wider range of health care services to be available to them at home so they can age as long as possible in their comfortable surroundings. However, this is not always possible due to changes in society. Mauritius is no exception as the ageing population is already rising and the need for old age homes will undoubtedly expand. Such homes are facilities that provide living quarters for older individuals who are unable to live independently alone but who often just need the minimal amount of nursing care that can be provided by a visiting nurse. These social issues have become the focus of social entrepreneurs who can organize resources, develop new social structures, and launch innovative projects in response to these issues rather than market standards. Therefore, the following hypothesis is proposed, and corresponding variables defined:

Null Hypothesis 1

H₀₁ - there is no impact of old age housing facilities on ageing population in Mauritius

Alternate Hypothesis 1

H_{A1} – The demand for old age housing facilities changes with an aging population.

Independent Variables: level of loneliness, the ability to perform daily activities and health status

Dependent Variable: the waitlist demand for old age housing facilities

Operational Independent Variable: elderly people living alone and need assistance and healthcare in their daily lives.

Operational Dependent Variable: people who have registered themselves to get admitted into an old age home in Mauritius and are on the waiting list.

Operational Definition of Variables for Research Question 2

What is the effect of relative supports on old age homes in Mauritius?

Elderly persons who are unable to live in their own houses are given shelter, food, and comfort in old age homes. They may not be able to lead independent lives because they

have lost loved ones or because they have chronic illnesses. Long-term stays in nursing homes or hospitals can be very expensive. This is the perfect location for folks who don't have enough savings to cover the cost of a nursing home stay (Gonzalez, 2019). An old age home has a number of benefits. First, people receive love, care, assistance, and compassion. Second, these facilities have a committed medical team comprising licensed physicians, nurses, and personal care assistants on a 24/7 basis. Elders also benefit from living in a senior community where they can make new friends, participate in group activities, and live carefree lives in addition to assisted living services. Old age homes are sprouting up at an increasing rate. In addition to the elderly's own well-being, there may be a number of other factors that compel senior citizens to move into these homes:

Young people working away from home in another city, state, or country.

Elderly safety concern.

Social contact with a group of like-minded people.

Stress-free existence.

Daily and night-time medical care; &

Social contact and constant company.

The following hypothesis is proposed for this research question and corresponding variables defined:

Null Hypothesis 2

H₀₂ - "there is no effect of relatives support on old age home in Mauritius people".

Alternate Hypothesis 2

H_{A2} – "Relatives cannot provide support to assist elderly people in their daily lives.

Independent Variable: level of loneliness, assistance and healthcare, and socialization.

Dependent Variable: support

Operational Independent Variable: elderly people residing in old age homes needing daily assistance, healthcare and socialization.

Operational Dependent Variable: someone keeping company and providing all kinds of assistance required by the elderly person.

Operational Definition of Variables for Research Question 3

What is effect of the current facilities provided in existing old age housing facilities in Mauritius?

Sending an elderly person to an old age home does not necessarily mean neglecting the person. The situation is very different as old age homes are where elderly people can find all the amenities, they need for a comfortable life. They receive attentive care from professionals who have years of medical experience. Staff members with formal training enjoy spending time with elderly people in need (Kadji, 2021). They can meet their demands and requirements in the finest way possible by being attentive to their unique needs. The availability of medical care around the clock lessens the concern for the well-being of senior citizens. In order to guarantee their well-being, they can also have a routine check-up. They have every amenity needed for a comfortable lifestyle. One can occasionally bring the family along as well, which will help them feel less lonely and so that they can fully appreciate their golden years. These houses offer unique rooms with cutting-edge features.

Null Hypothesis 3

H₀₃ - there is no effect of facilities provided on old age homes facilities in Mauritius.

Alternate Hypothesis 3

H_{A3} – Good facilities are provided in old age homes for old people to lead a happier life.

Independent Variable: daily assistance, quality of nutrition and dining room service.

Dependent Variable: happier life

Operational Independent Variable: providing services on a daily basis to meet all their needs.

Operational Dependent Variable: to have a feeling of satisfaction, joy, comfort, and good emotions.

Operational Definition of Variables for Research Question 4

What are the challenges faced by residents and employees of old age homes?

The fact that society as a whole is living longer is well acknowledged and can be attributed to better living and healthcare conditions (Akbar, 2021). We should all be grateful that we can live into old age, but there are a number of obstacles that the elderly face that we should all be more aware of. As they get older, many senior citizens decide to stay in their own houses but very often they encounter difficulties, frustrations, and challenges in their daily tasks (Fausset et al., 2011). As a person becomes older, their mobility and dexterity naturally deteriorate, making it harder to complete daily chores. More assistance is required to ensure that elderly people can continue to grow as individuals in addition to enabling them to live independently through goods and programs that focus on safety, balance, fitness, and mobility. Many older people need extra care once total independence is no longer practicable. To enable this, carers assist the elderly people by providing the greatest care. However, these carers should be given the appropriate training, tools, and emotional support needed to provide this service. Close monitoring should be conducted regularly with both the residents and carers to know about problems they encounter and find solutions accordingly.

Null Hypothesis 4

H₀4 - The quality of life of residents cannot be improved by the quality of service in old age homes.

Alternate Hypothesis 4

H_{A4} – The quality of life of residents is improved by the quality of service in old age homes.

Independent Variable: Feedback from residents and employees

Dependent Variable: Improvement in the quality of services

Operational Independent Variable: responses received from residents about services offered at the old age home and from employees regarding difficulties that are encountering when taking care of residents.

Operational Dependent Variable: to train employees so that better services may be offered to residents

Operational Definition of Variables for Research Question 5

What other facilities should be provided in old age houses to cater for residents suffering from common diseases among seniors in Mauritius?

Age is a key risk factor for diseases that affect people more frequently as they age.

Several changes occur in the body and age-related diseases and disorders start showing such as sensory, cognitive, psychological, social and environmental changes and weakness (Jaul & Barron, 2017). According to David Hogan, a gerontologist and professor of medicine at the University of Calgary (Basaraba, 2020), there are about 13 more prevalent age-related diseases. Normal ageing includes some hearing loss, vision loss, and immune system degradation. But diseases such as Alzheimer, dementia, depression, cardiovascular disease, and osteoporosis are all prevalent chronic illnesses that are suffered by old people. As people age and the number of overweight people increases, the prevalence of osteoarthritis, diabetes, and related mobility disabilities also increases (Jaul & Barron, 2017). Therefore, it is recommended that the old people suffering from these diseases should have the support of caregivers, in-home services, assistive technology, promotion of home exercise programs, and thought to housing and transportation policies.

Null Hypothesis 5

H₀₅ – Old people suffering from certain diseases do not get special facilities in old age homes.

Alternate Hypothesis 5

H_{A5} - Old people suffering from certain diseases get special facilities in old age homes.

Independent Variable: Diseases

Dependent Variable: Special facilities

Operational Independent Variable: common illnesses suffered by majority of old people such as Alzheimer, Dementia, depression, cardiovascular disease, and osteoporosis

Operational Dependent Variable: support of caregivers for assistance in daily life, possibly assistive technologies to minimise risks.

Operational Definition of Variables for Research Question 6

What special training is required by caring staff to improve the quality of care given to old people suffering from chronic diseases?

It is crucial to upgrade the training provided to nursing home employees to improve the elderly's standards of living (Wang et al., 2020). The nursing of the elderly should be improved, not just the focus on the elderly themselves. The old age home personnel, which makes up the majority of the senior care service, directly affects the standard of care given to senior citizens. The number of older persons with chronic illnesses and disabilities has significantly increased as the average human life span has increased. According to the World Alzheimer's Report 2013, there are currently about 35 million individuals living with dementia, and that number is expected to double every 20 years. In 2030, there will be 66 million, and in 2050, there will be 115 million (H. M. Chen et al., 2016).

The need for dementia care has grown as a result of the rise in the number of dementia sufferers (H. M. Chen et al., 2016). Memory impairment is the primary clinical sign of dementia, which is usually followed by mental symptoms like depression and personality changes. Depressive symptoms, hallucinations, delusions, agitation, anger,

combativeness, disinhibition, and hyperactivity are some of the behavioral and psychological signs of dementia (BPSD). 60% to 90% of dementia patients have these behavioral and psychological symptoms at some point during the course of their condition (Wang et al., 2020). The BPSD lowers patients' quality of life, which greatly distresses caregivers and makes institutionalization the most popular option. Aggression and agitation at high levels are particularly challenging to control in nursing homes and need for the creation of an efficient therapeutic strategy. Researchers have recently looked into the use of non-pharmacological treatments to lessen dementia symptoms and enhance quality of life for both patients and their caregivers (H. M. Chen et al., 2016). Cognitive training, memory training, cognitive exercises, and integrated multicomponent interventions are a few of these therapies. Therapies are useful to boost mood, behavior, daily activities, quality of life, and cognitive skills in elderly people with mild to moderate dementia. Additionally, it has been demonstrated that these treatments enhance caregivers' moods, quality of life, and psychological health.

Null Hypothesis 6

H₀₆ – Staff do not need specialized training to be updated with new therapies to assist elderly people.

Alternate Hypothesis

H_{A6} - Staff need specialized training to be updated with new therapies to assist elderly people.

Independent Variable: Specialised training

Dependent Variable: To be updated with new therapies

Operational Independent Variable: training required to enable caregivers to give treatment to elderly people suffering from chronic diseases.

Operational Dependent Variable: new treatment to reduce symptoms of diseases.

Study Procedures and Ethical Assurances

According to international rules and regulations governing research, ethical approval of the research ethics committee is compulsory prior to collecting primary data for a study. In this context, an application was made to the Unicaf Research Ethics Committee (UREC) to have ethical approval to collect data in old age homes in Mauritius for this study. Upon application, the following forms were submitted, after being completed in line with the Unicaf Research Security Policy and the International Ethical Guidelines for Health-related Research Involving Humans (2016):

Research Ethics Application Form – the form consists of a description of the study and the research questions, hypotheses, goals and benefits of the study. Information regarding the research methodology and population sampling are explained and the researcher provides details about the participants, the inclusion and exclusion criterion, and declares the following:

Written informed consent form to be obtained from all participants.

There will be no participant who is not able to give free and informed consent.

There will be no participant under maturity age and therefore guardian informed consent is not required.

No verbal assent will be obtained from children.

All participants and names of old age homes to be visited will remain anonymous. Data gathered is treated with strict confidentiality and will be secured for 5 years with the researcher.

Unicaf University Informed Consent Form – before signing the Informed Consent Form, participants were requested to read the short description of the research project and the researcher also explained the purpose of the study. The researcher was dedicated to guaranteeing that participants in the research project participate voluntarily and that there were no potential risks or injuries to them. Participants were free to leave the study at any time (before or after it is finished), with no repercussions and without giving a reason. In certain situations, the data gathered would be destroyed, if required.

Unicaf University Guardian Informed Consent Form – This form contains a brief description of the study to be filled in by the participant's legal guardian who consents that an under aged participant can willingly contribute to the study. However, this form was not required in this study as there was no underaged participant.

Gatekeeper Letter – the purpose of this letter was to inform every old age home to be visited about the study and seek permission to interview some residents and employees.

Three questionnaires were prepared for the collection of data from prospective residents, residents and employees of old age homes respectively. These questionnaires were submitted together with the above-mentioned forms to have approval of the UREC prior to collection of data. The Unicaf Research Security Policy served as guidance for this research as it offered clear guidelines and recommendations for protecting research

participants. It is advisable for researchers using human participants to avoid gathering personal information if possible so as the data may be best preserved by not knowing the participant's identity in the first place. But occasionally, gathering personal information is required to complete a study assignment. If consent forms are signed by participants, those signatures are likewise personally identifiable information that needs to be stored securely. In this study, data was collected by telephone and face-to-face. In the case of face-to-face collection of data, the researcher can identify the participants. However, to abide by the requirements of the Unicaf Research Security Policy, an identification number was assigned to each participant to keep collected data confidential and all questionnaires were kept in a secure environment. Names and contact details of respondents were kept in separate, safe files from survey results. Responses to the poll were not associated with any personally identifiable information.

Before starting the survey, emails were sent to Managers of old age homes that were selected through cluster sampling. The researcher gave a brief description of the purpose of the study and requested their permission to interview some residents and employees on the topic. Questionnaires for residents and employees were attached in the emails to give them an idea of the type of information to be gathered. The researcher then contacted all the selected homes to make a follow up on the request sent by email and at the same time information was requested as a sort of pre-screening with regards to the population of residents who will participate in the study.

The study population for residents comprised of all residents in the selected homes with the exception of those above 80 years old and those suffering from Alzheimer and Dementia. A schedule was prepared to visit each selected home according to their availability. In most cases, the researcher was granted access to question the residents in their rooms while for the employees, the questionnaires were handed over to them to fill. Before each starting the interview/survey, the researcher explained the purpose of the study and requested the participants to sign the written informed consent.

Ethical Considerations and Assurances

Ethical Considerations

Research designs and methodologies are influenced by ethical considerations and when collecting data, assessing possible medical or psychiatric therapies, and researching human behavior, it is imperative that researchers adhere to a strict code of conduct (Altawalbeh et al., 2020). Ethical standards uphold a high degree of academic or scientific integrity, safeguard study participants' human rights and welfare, and improve the validity of research. The following are possible ethical considerations for conduct:

Being truthful, impartial, and honest in the design of experiments, collecting data, analyzing it, reporting, and all other aspects of research.

Analyzing work critically and thoroughly, maintaining accurate records, and openly sharing information, findings, and resources.

Respecting intellectual property, such as copyrights, patents, and research techniques, to prevent plagiarism.

Preserving confidential messages, publishing diligently to further research, and working to encourage social responsibility.

Avoiding biases, abiding by legal requirements and institutional guidelines, and honoring the autonomy and dignity of people and animals.

According to Lothian and Philips (2001); Theis et al., (2024), maintaining patients' autonomy and dignity while reducing their level of distress should be the goals of health care. When faced with a deteriorating ability to make decisions on one's own because of a physical or cognitive impairment, maintaining dignity and autonomy can be challenging and can lead to moral and personal quandaries for both patients and healthcare professionals. Autonomy and dignity are somewhat different concepts, despite their similarities (Lothian and Philips, 2001; Theis et al., 2024). A person who maintains their dignity is one who is respected by others and holds themselves in high regard. Individual control over decision-making and other tasks is referred to as autonomy. The autonomy and dignity of senior citizens should not be compromised.

Ethical Assurances

When doing research, it is crucial for researchers to comprehend and apply ethical standards when selecting how to treat study subjects and the data that is acquired. As stated by Singer (2019), ethics is the subject matter that establishes what is morally good and evil

as well as what is morally right and wrong. A theory of moral values can be included in ethics, which is also known as moral philosophy. There are no set guidelines to discern between right and wrong, and Resnik (2020) notes that the "norms for conduct" that discriminate between acceptable and undesirable behavior are the most popular definition of ethics. The majority of moral standards are learned in early life at school, religious institutions, and social gatherings. Moral development continues throughout the many phases of development. All people recognize common ethical standards, but they frequently interpret and apply them differently based on their own values and experiences in life. The same goes for professional conduct; the same rules should be followed when conducting research. In order to advance the research's goal, ensuring that we have other people's cooperation, such as mutual trust and respect, and ensure that researchers are held accountable, it is crucial that research be performed in accordance with ethical principles (Resnik, 2020). Due process requires the researcher to respect each study participant for their due rights and has to promise the participants that their rights and dignity would be protected. It is imperative that research participants be reassured of their safety before any study is conducted (Yip et al., 2016).

There are several ethical considerations that should be considered when conducting research to write a dissertation in order to ensure that we act honorably (beneficence) and do not abuse (non-maleficence) (Laerd, 2012). Therefore, the researcher must adhere to 5 moral standards which are explained below.

Risk Reduction of Harm to Participants

It is the responsibility of researchers to make sure that research participants are not harmed. This practice is known as "non-maleficence" and a researcher has a responsibility to ensure that research which may possibly hurt participants is conducted by trained investigators to avoid "harm" which is a contested concept (Glasgow Caledonian University, 2013). Therefore, the researcher must exercise caution while selecting the type of research to be carried out. While a researcher generally avoids doing harm to participants, there are specific situations where there may be a "risk of injury" and participants may suffer harm or discomfort. There must be solid justifications for such circumstances, and researchers must be able to show that due caution was taken while conducting the research (Laerd, 2012). As a result, these circumstances need to be handled with more preparation in order to inform consent, lessen any discomfort, and have a follow-up debriefing (Laerd, 2012). Research participants may suffer the following harms: psychologically, socially, physically, financially, and through invasion of their privacy and anonymity. The actions listed below should be considered by the researcher in order to lower the risk of harm:

- Obtaining informed consent from participants.

- Maintaining participant confidentiality and anonymity.

- Avoiding dishonest methods in research; &

- Anytime the participants want, they should be able to leave the study.

Researchers must demonstrate that due diligence has been used to address the risk of harm by identifying the risks, assessing the probability that such risks may occur, evaluating the risk level to determine whether risk is at an acceptable level while achieving the objectives of the research, and the steps to be taken to control and minimize the risks (Glasgow Caledonian University, 2013).

Informed Consent of Research Participants

Any research study has risks, and while conducting one, the researcher must work to minimize all risks and disclose all hazards to any potential participants to enable them to decide whether to participate or not (Manti & Licari, 2018). As a result, acquiring the participant's informed consent is one of the pillars of research ethics. Informed consent is the process of explaining the main components of a research project and what their involvement would entail to potential research participants (University of Michigan, 2021). One of the key elements of conducting research involving human subjects ethically is the procedure of getting their informed consent (Schofield, 2014). A written consent is a document containing the necessary information (i.e., the components of informed consent) that must normally be provided, and prospective participants must be given access to that document. The informed consent form should be easy to read and the consent of the participant must be obtained through open and honest communication (Manti & Licari, 2018).

The researcher must explain the type of information to be gathered from the participant and the latter has the right to withdraw at any moment or choose not to participate as participation is optional. The participant should not be coerced but have the reassurance that their refusal to participate in the study or withdrawal from it will not entail any negative effects (Manti & Licari, 2018). All relevant information should be given to the participant, such as the study's goals, the procedures and methods to be used, their duration, any risks involved, the benefits they can expect, how confidentiality will be maintained, how their data will be protected, and whether they can expect any inconveniences or discomfort while participating in the study (Schofield, 2014).

Depending on the type of research being done, informed consent requires extra care when participants are weak persons, such as the elderly, children, the sick, the disabled, or prisoners. Furthermore, it is crucial that the research participants sign the informed consent form, which must explicitly state all of the information indicated above that will be given to her/him and attest to receiving a copy of all completed forms (The Ohio State University).

Protection of Participants' Anonymity and Confidentiality

When gathering, analyzing, and reporting data, confidentiality and anonymity are ethical procedures used to protect the privacy of human subjects (Coffelt, 2017). Separating or altering any personally identifying data provided by participants from the data is referred to as confidentiality, while anonymity, on the other hand, is the practice of gathering data

without getting any identifiable, personal information. The preservation of participants' identity and confidentiality is a crucial aspect of research ethics (Coffelt, 2017). The potential participant must be assured that his anonymity and confidentiality would be maintained before being allowed to take part in the study. But occasionally, not all data obtained must be kept private, or at a specific point in the study, like when the dissertation is published, the identity and opinions of the participant must be made public. However, the participant's consent should be obtained before disclosing any of these sensitive details (Schofield, 2014).

Avoiding Deceptive Practices

To avoid deceit, researchers should avoid deceptive tactics, and participants should be fully informed. Resnik (2020) claims that deception occurs when the participant is intentionally deceived and there is an incomplete exchange of information about the study's purpose. There are two kinds of deception: active and passive. Passive deception occurs when specific study-related material is withheld from participants with the intention of misleading them about the study's aim, whereas active deception involves intentionally giving false or inaccurate information to potential participants. However, there are times when covert research, in which the participant is unaware of the study's true purpose or the researcher's identity, deception is definite (Manti & Licari, 2018). When doing covert research, deceptive tactics are permitted since too many details about the study, or the researcher can be discovered. However, according to the Health Sciences Institutional Review Boards (2016), deception can be employed when there is no other method to fulfill

the research's objective, and such usage must be strongly justified by the scientific value of the study. However, the researcher must control all hazards and inform the participants about the deception and the justifications for using it. If at all possible, potential volunteers may be advised that not all information is being supplied and that complete and accurate information about the study will be made public when it has concluded (Resnik, 2020).

Participants' Right to Withdraw from the Research

Participants are free to leave the research at any moment, as they are informed when getting their informed consent (Schofield, 2014). The researcher cannot put any pressure on them to convince them not to do so. A participant may choose to leave a research project without giving justification and he/she must at least notify the research team of their decision. Ethics committees have established procedures on a possible participant's unconditional or absolute right to withdraw from a research project at any time during its duration and without being required to give a reason (Edwards, 2005). In this study, all participants were informed that their personal data and contributions to the study will remain confidential and they could withdraw from the study anytime they wished to do so.

Data Collection and Analysis

Information is gathered from all pertinent sources through the process of data collection to find solutions to the research problem, testing the hypothesis in case a deductive approach is used followed by assessment of the results (B. N. Gupta & N. Gupta, 2022). In general, data to be collected should be linked to the aim of the study to answer the research questions. For this study, data has been collected from a population consisting

of residents and employees of old age homes operating in Mauritius. Noting that the study is about how ageing population in Mauritius may impact on the demand for old age homes, the researcher believed that there should be an insight of the trend of population growth of Mauritius for at least the last 2 decades. According to Worldometer (2022), the United Nations elaboration on population data, the population of Mauritius currently stands at 1,276,306 as compared to year 2000 when the population of Mauritius was 1,185,145.

Table 3. 1

Mauritius - Population and Age between 2000 and 2022

Year	Population	Yearly % Change	Yearly Change	Median Age	Fertility Rate
2022	1,276,306	N/A	N/A	N/A	N/A
2020	1,271,768	0.17%	2,100	37.5	1.39
2019	1,269,668	0.20%	2,483	35.9	1.47
2018	1,267,185	0.21%	2,686	35.9	1.47
2017	1,264,499	0.21%	2,634	35.9	1.47
2016	1,261,865	0.19%	2,409	35.9	1.47
2015	1,259,456	0.18%	2,300	35.6	1.49
2010	1,247,955	0.42%	5,190	32.9	1.70
2005	1,222,003	0.61%	7,372	30.5	1.93
2000	1,185,145	0.98%	11,294	29.0	2.03

Source: Adapted from **Worldometer, 2022** (www.Worldometers.info)

As shown in table 3.1, the percentage change in population and fertility rate have decreased from 0.98% and 2.03 respectively in year 2000 to 0.17% and 1.39 in year 2020, causing the population median age to shift from 29 to 37.5 years old. This shows that Mauritius is having a more ageing population now as compared in year 2000. According to the United Nations (Worldometer, 2019), it is forecasted that the median age will reach 47.7 due to a rapid decrease in the yearly change in population, as shown in the table 3.2.

Table 3. 2
Mauritius - Population and Age between 2020 and 2050

Year	Population	Yearly % Change	Yearly Change	Median Age	Fertility Rate
2020	1,271,768	0.19%	2,462	37.5	1.39
2025	1,276,643	0.08%	975	39.2	1.39
2030	1,274,041	-0.04%	-520	40.8	1.39
2035	1,263,821	-0.16%	-2,044	42.6	1.39
2040	1,244,869	-0.30%	-3,790	44.5	1.39
2045	1,217,855	-0.44%	-5,403	46.1	1.39
2050	1,185,529	-0.54%	-3,465	47.7	1.39

Source: Adapted from *Worldometer, 2019* (www.Worldometers.info)

United Nations statistics shows the trend towards an ageing population in Mauritius. Research is required to comprehend the difficulties people confront when they age in place because the number of elderly people is predicted to increase dramatically over the following several decades (Mayer et al., 2008). The capacity of senior citizens to keep up with their dwellings may be threatened by age-related decreases in capacities, posing a challenge to successful ageing in place and leading to the need for safer living for them.

Data Collection

The researcher has collected data to respond to the study's research questions by using three survey questionnaires for prospective residents, residents and employees of old age homes. With regards to the residents, although we are aware that many elderly individuals choose to age in their own houses, we are not aware of the specific obstacles they have to overcome. Elderly individuals may encounter regular annoyances and challenges in their daily tasks (Mayer et al., 2008). A person's capabilities and limitations

fluctuate over the course of their lifetime, sometimes predictably and sometimes unexpectedly. With ageing come certain general patterns of changes to the body, perception, and mind: deterioration of working memory, loss of hearing and vision, and loss of strength (Mayer et al., 2008). It is therefore important to understand the specific challenges that older adults face in maintaining their homes which ultimately force them to move into elderly care homes. Older people who want to keep their independence must perform a variety of everyday tasks in their home, such as eating, using the restroom, and taking a shower. The purpose of this research is to extract information from prospective residents and residents to determine the reason for moving into old age homes, the facilities offered, what do they expect as services, and the quality of such services. For this inquiry, a structured interviewing method was employed for residents whereby participants were requested to fill in background information with regards to demography, family status, health condition, and their life at the old age home. As for the collection of data from employees, the questionnaire consisted of unstructured questions about their experience of working with elderly people, the training they underwent and the difficulties they encounter every day.

As of date, there are 52 care homes for elderly registered with the Ministry of Social Integration, Social Security and National Solidarity and the number of residents in each home is not available in the public domain. Before proceeding with the sampling of homes for the conduct of interviews, all the homes were approached by phone to obtain the number of residents and employees. In most cases, it was a refusal to provide information by phone

and even before the survey. In this context, it was found more appropriate to work with sampling for infinite population and to use the Taro Yamane formula on the survey day to determine the sample size of interviewees from each old age home.

The researcher proceeded with the selection of a sample of homes through cluster sampling of the 52 registered homes. There was a total of 10 clusters. The homes were grouped in 8 clusters of 5 homes and 2 clusters of 6 homes, comprising of a mix of homes in rural and urban areas. 4 clusters of 5 homes were randomly chosen for the survey for a total of 20 homes. Subsequently, an email was sent to each home in the sample requesting permission to conduct the survey, followed by telephone calls to establish a schedule of visits for the survey to be conducted over a period of 2 weeks.

On the survey day, the task started with meetings with the Management teams of each old age home to get the number of employees on duty at the time of survey and the number of residents to determine the sample to be interviewed after considering residents who are excluded from the study.

As far as the sample of employees is concerned, all old age homes provide 24-hour service, necessitating employees to work on a shift system. The selection of employees for the interviews was completely dependent on the employees' working schedule on the survey day and the selection of staff participants was based on availability rather than a random selection of participants (a limitation). It is believed that a cross-section of the staff

base was represented as the survey comprised of managers, administrators, nursing officers and personal care attendants, commonly known as carers.

Upon finalisation of the survey samples with management and prior to starting the survey with each participant, the researcher introduced herself and explained the purpose of the research. The participants gave their informed consent and were informed that all data collected will remain anonymous and confidential and they have the right to quit the research at any stage without providing any justification. Participants were requested to share their own unique personal experiences. The employees' questionnaires were handed over to be filled by themselves, while the researcher assisted the residents to do so while interviewing them.

Data Analysis

Data analysis is the most crucial component of any research project. Data analysis condenses gathered data. It entails the analysis of acquired data using logical and analytical reasoning to identify patterns, correlations, or trends (Saldana, 2015). The data analysis process involves three crucial steps, starting with the organization of the data. Secondly, data are summarized and categorised to facilitate the identification and connection of data by highlighting patterns and themes for easy identification. The third step is data analysis, which can be done top-down or bottom-up. According to Saldana (2015), for a subset of language-based or visual data, a code is a word or short phrase that designates a conspicuous, essence-capturing, and emotive property. A code is not just a label that

describes a piece of content, but it is also a link that guides you from the facts to the concept and from the idea to every piece of information relating to that idea. We do this because the patterns in the data match what we see in them, and vice versa. In the data, patterns are connections that reveal important information about our study issue. We may create themes based on these patterns, which are theoretical constructs that are validated by the data.

The SPSS software was used for analysis of quantitative data. For advanced statistical data analysis, several different types of researchers utilize SPSS, which stands for Statistical Package for the Social Sciences. For the management and statistical analysis of social science data, the SPSS software package was developed. It was first introduced in 1968 by SPSS Inc., and in 2009 IBM purchased it (Alchemer, 2021). Researchers from a variety of fields utilize the software application SPSS for the quantitative analysis of complex data. The SPSS environment, fundamental data preparation and management, descriptive statistics, and common statistical analysis (T-test, ANOVA, correlation, and regression) are all covered in this beginning level SPSS session. For processing and interpreting survey data, SPSS is utilized by a wide range of professionals, including market researchers, health researchers, survey firms, and government agencies among others. There are a few statistical techniques that may be used with SPSS, such as (Alchemer, 2021):

Methodologies used in descriptive statistics, such as frequencies, cross-tabulation, and descriptive ratio statistics.

ANOVA - correlation, and nonparametric tests are examples of methods used in bivariate statistics.

Numerical result forecasting techniques like linear regression.

Predicting group identities using techniques like cluster analysis and factor analysis.

Qualitative data has been collected and the qualitative data analysis approach entails dealing with distinct identifiers, such as labels and attributes, and categorical variables, such as statistics, percentages, and measures. Qualitative data analysis is the process of gathering, evaluating, and interpreting qualitative data, non-numeric data, conceptual information, and user feedback—in order to find themes and patterns, respond to research questions, and decide what steps need to be taken to improve a product or website is known as qualitative data analysis (Henderson, 2016).

To give sense to data gathered from survey participants through interviews, surveys, and feedback, there are five ways of qualitative data analysis as described below (Henderson, 2016):

Content analysis - looks at and counts the appearance of particular terms, concepts, and ideas in text, image, video, or audio messages. Marketers and customer service professionals frequently use content analysis to evaluate consumer behavior and gauge brand reputation. Content analysis is used to enable the researcher to draw

trustworthy conclusions about what customers think of a brand and their experience and opinion may be enhanced by converting qualitative input into quantitative data.

Thematic analysis - In order to recognize, examine, and explain patterns in qualitative data, thematic analysis is helpful. Although they look similar, content analysis and thematic analysis have separate principles. The goal of content analysis, which can be used on both qualitative and quantitative data, is to find common themes and word patterns while only qualitative data can be used for thematic analysis, which concentrates on finding patterns and "themes."

Narrative analysis - The approach of narrative analysis is used to interpret the accounts of study participants, including those found in case studies, interviews, testimonials, and other types of text or visual data. Product teams can gain important information from narrative analysis into the complexity of customers' lives, emotions, and behaviors. Narrative analysis is used in marketing research to gather and analyze consumer stories from social media, for instance, in order to learn more about their lives, priorities, and difficulties.

Grounded theory analysis – A technique for performing qualitative research to create theories by looking at facts from the real world is grounded theory analysis. The method entails gathering and analyzing qualitative data in order to develop

hypotheses and theories. This strategy, in contrast to other qualitative data analysis methodologies, builds ideas based on the data rather than the other way around.

Discourse analysis - The process of examining the underlying significance of qualitative data is known as discourse analysis. To examine the connections between the information and its context, it entails observing texts, audio, and video. Discourse analysis offers insight on what audiences think about an issue and why they feel the way they do it, as contrast to content analysis, which focuses on the content of words.

For qualitative data analysis, grounded theory will be used in this study. The researcher is not so familiar with the subject and this has been a helpful technique as the results are based on statistics and hence reflect the established reality.

Summary

This chapter defined research methodology and used the research onion developed by Saunders, Lewis & Thornhill as guidance for the methodology and research design chosen to answer the questions raised to meet the goals of this research. The goal of this study is to assess the problems and challenges faced by the elderly in nursing homes and determine what other facilities should be made available to provide the population with better healthcare ingrained through family, community, and the government to handle the issues that affect the old. For this purpose, a mixed methodology survey was conducted

from a sample of 20 old age homes to collect quantitative data from residents and qualitative data from employees. Analysis of the data collected has been done in the next chapter using the SPSS and grounded theory for quantitative and qualitative data respectively.

CHAPTER 4 – DISCUSSION OF THE RESEARCH FINDINGS

The goals of this chapter are to offer a synopsis of the information gathered, an analysis of the data, and a review of the results. This study's objective was to respond to six unique research questions: (a) What is the impact of old age housing facilities on ageing population in Mauritius?; (b) What are the effect of relative supports on old age homes in Mauritius?; (c) What are the effects of the current facilities provided in existing old age housing facilities in Mauritius?; (d) What are the challenges faced by residents and employees?; (e) What other facilities should be provided in old age houses to cater for residents suffering from common diseases among seniors in Mauritius?; (f) What special training are required by caring staff to improve the quality of care given to old people suffering from chronic diseases? The first section of the analysis and results section includes an overview of the participants followed by an analysis of data collected.

Trustworthiness of Data

According to the definition of trustworthiness used in qualitative research, it is determined by the researcher's dependability, the study design's methodological accuracy, the researcher's reputation, the plausibility of the findings, and the use of research methodology. (Rose & Johnson, 2020). The degree to which data may be relied upon and trusted for frequent use is referred to as its trustworthiness (Kavanagh et al., 2016). Recently, the field of educational research has seen an expansion in the use of qualitative research, which is positioned to allow researchers to collect process-based, narrated, or story-based data that is quite directly connected to human experience. (Stahl & King,

2020). Although a good story and other people's experiences can teach us a lot, building and gaining trust are essential. Stahl and King (2020) contend that the process of developing credibility is not a precise one, despite the fact that qualitative methodologists have attempted to identify many ways in which customers' faith in qualitative findings may be conveyed and increased. Instead, then concentrating on the data, as would be the case in quantitative research, qualitative market research places more of an emphasis on the reliability of the data. Since it quantifies concepts which cannot be captured by quantitative research, qualitative research is crucial. Qualitative approaches can also identify trends before they are seen in quantitative data (DeVault, 2019).

In contrast to quantitative research, which uses metrics to establish objectivity, reproducibility, validity, and reliability, qualitative research methodology is an epistemic endeavor in which the researcher uses observations to determine the importance of the data, which is then enhanced by their own thoughts and experiences in the social realm in relation to the topic under study (Daniel, 2019).

The goal of qualitative research is to comprehend the topic under study and offer justifications for the actions or experiences of certain people or groups (Whiting & Sines, 2012). One of the primary obstacles in qualitative research is establishing faith and trust in the theoretical insights that the researcher presents to explain or understand the phenomenon being researched. White et al., (2012) say that trustworthiness and management of data are essential for qualitative investigations to succeed. Although there

is a wealth of literature on maintaining rigor in qualitative research, very few publications have addressed how to do so when working with big qualitative data sets. Despite being a subjective reality, reliability of the research is one of those shared realities where readers and authors may discover overlap in their productive processes.

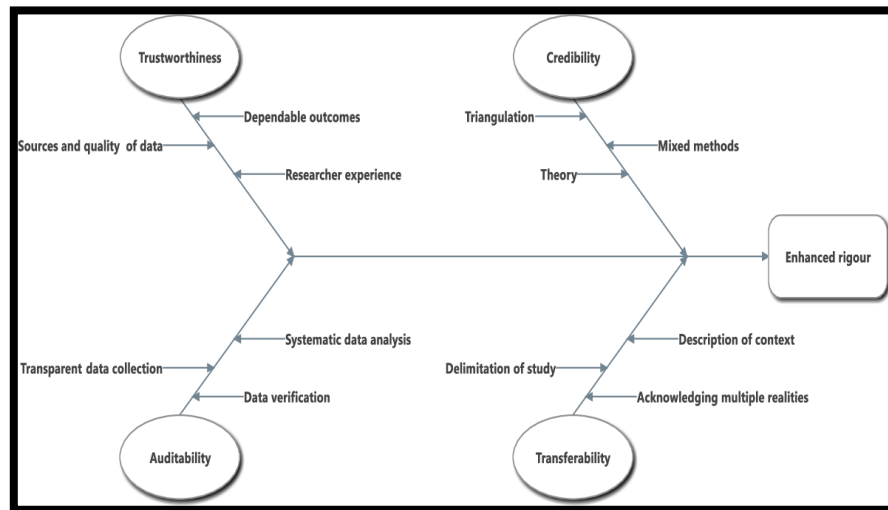
Another aspect of qualitative research that could conflict with conventional interpretations is that, unlike quantitative studies, it does not aim to be replicable (Stahl & King, 2020). Consumers can and should anticipate different findings on a different day, with a different researcher, in a different location, with a different writing class. Even when a specific set of data is gathered and shared, various authors can produce distinctive results. This is because reality is produced for the majority of qualitative researchers. Because the quantitative concept of validity cannot be achieved, qualitative research does not attempt to do so. Instead, qualitative researchers aim for the less obvious goal of credibility, which means that readers will feel confident in the researcher's findings when they interpret the written work. Readers would not, however, expect to replicate the precise findings in their own applications of the research, even with that confidence.

By employing particular research methodologies, researchers increase the credibility of their research endeavors and outcomes. According to Stahl and King (2020), an approach to trustworthiness relies on four general criteria namely credibility, transferability, dependability, and confirmability are some of these. Notwithstanding the divergent opinions on how to develop rigor, Daniel (2019) believes that it is important to

provide students with a general framework when teaching them research procedures that may act as a guidance and a tool to support the decisions of novice qualitative researchers. He further says that performing effective qualitative research requires making a number of decisions, some of which may seem difficult to the novice researcher. The theoretical framework was created to assist researchers doing qualitative research to use a collection of indicators to help them determine the degree of rigor in qualitative research. The framework known as the TACT Framework is made up of the following metrics trust, auditability, credibility, and transferability. Users of the framework are given a number of questions based on the four dimensions to assist them in considering various aspects that may aid to produce a rigorous and practical conclusion to research findings.

To secure trustworthiness of this study, the researcher applied the four metrics of the TACT framework as explained below in line with a series of questions in line with the four most important components of research methodology namely the research topic, techniques, data analysis, and findings.

Figure 3. 2
The TACT Model



Source: Adapted from *What constitutes good qualitative research study fundamental dimensions and indicators of rigor in qualitative research: The TACT framework*, Daniel, 2019

Note. This figure did not fit on the bottom of the previous page. Therefore, the entire table was moved to the next page, as required by APA Referencing Guide.

Trustworthiness

The concept of trustworthiness is important when qualitative research methods are concerned as it describes the standard of qualitative research. It bolsters the relevance of the research as well as its rigor (Daniel, 2019). Trust is a tool that other researchers can use to gauge their level of trust in the caliber of an inquiry and its results, and it can be seen as an important factor that enables them to improve the understanding and how to interpret research findings. Researchers that use qualitative methods are urged to illustrate several strategies for increasing the credibility of their findings.

A model for building trust in qualitative research was proposed by Guba in 1981 which was founded on the recognition of four dimensions of trustworthiness: namely truth value, application, consistency, and neutrality. The method of using this approach in qualitative research is not simple as it necessitates the researcher to employ various techniques and make sure that findings are situated within participant-generated viewpoints (Sinkovics & Ghauri, 2008). The researcher must be aware of personal biases and understand that any qualitative research findings are impacted by numerous factors. The researcher must confirm the validity of the data analysis by outlining the presumptions they have regarding the phenomenon under investigation and the experiences they have that inform their interpretation of the data through reflexivity. In order to be reflective, a researcher must give a thorough brief of what they experience, presumptions about the phenomena under investigation, and the circumstances and procedure that guided their gathering of data (Cope, 2014).

Using a systematic procedure for data organization and analysis is required to provide qualitative research findings that can be trusted. In some circumstances, it can be required to demonstrate consistency in the intercoder's coding and evaluation of the data. It is important to remember that credibility in qualitative research entails showcasing a respectable level of honesty in the study's methods and conclusions (Creswell & Miller, 2000).

The researcher must admit their prior beliefs and experiences in order for the study to be considered trustworthy within the TACT framework. Also, they must exhibit a methodical approach to analyse data. To guarantee that the outcome appropriately depicts the viewpoints of the sample, it also necessitates the participant confirmation of preliminary findings. Triangulating results with results from different research methodologies is also essential.

For the present study, the researcher examined two data sources: primary and secondary data (Allen, 2017). Primary data are first-hand, distinct information gathered by the researcher by one of the following methods: (a) observation; (b) interviews; (c) in-person group discussions; or (d) questionnaires (Ajayi, 2017). Conversely, secondary data refers to previously used or second-hand knowledge that is nevertheless necessary to support a research project (Martins et al., 2015). With the background of the study literature in place, the researcher made sure the research problem was appropriately framed and it was considered right to collect data for this study through survey questionnaires. Two separate survey questionnaires were used for residents and employees of old age homes. After analysis of the research problem and the actual situation in old age homes in Mauritius, the proper recruitment approach was chosen in accordance with the research's objective. The researcher informed them of their rights as volunteers and the goals and purpose of the study before the interview began. To ensure trustworthiness, all data included in the study reflects purely the views of participants and as such the findings are dependable.

Auditability

Auditability is a crucial factor when establishing rigor, which necessitates a high degree of transference in qualitative research. A methodical approach to data collection, analysis, and interpretation is called auditability. There are two types of auditability, namely internal and external auditability. According to Daniel (2019), internal auditability pertains to the capacity to handle methodological concerns, such as the ability to clearly state research questions and the manner in which they connect to a given research design, data analysis, and findings while users of the research results often carry out external auditability when the finding of the researcher or what has been concluded are questioned.

To guarantee that the entire research process is demonstrated and described, auditability facilitates introspection for the researcher. The provision to keep records of all decisions made while conducting research is known as auditability. Field notes, memoranda, and other visual aids are used by researchers who are concerned with achieving a reasonable level of audibility during organized data collection, analysis, coding paths, and reporting.

The researcher must explain how they interacted with the full study process in order to establish auditability inside the TACT framework. The qualitative researcher must clearly exhibit the research material and record the cognitive processes that resulted in the study's results.

To ensure auditability of this study, the researcher explained the research problem clearly and collected data in old age homes in a transparent manner by handing over a blank copy of the residents' and employees' questionnaires to the Manager of each old age home so that they are aware of the questions being asked to their residents and employees. Under the "Data Collection" section, the researcher clearly explained how the population was selected and how data was collected.

Credibility

Credibility means asking oneself about "How consistent are the findings with reality?". This is a very individualized problem that is dependent on individual opinions. Internal validity questions are analogous to outcomes congruence questions in qualitative research in quantitative research. (Stahl & King, 2020). In contrast to validity, credibility necessitates proving that results are reliable, pertinent, and consistent to reflect the views of the data providers that define the researcher's intended reality. (Daniel, 2019). One aims to comprehend how the presented outcomes "go along" given that the theories ought to have some connection to one another. Yet, contrary to quantitative studies, there is no expectation that all responses to coherence credibility will produce the same result.

A thorough explanation of the data analysis and confirmation of the sources of the data with the individuals from whom the data was acquired can increase credibility. Moreover, researchers must ground the data analysis unit in the primary phenomenon under study (Loh, 2013). Peer debriefing, focusing on unsuccessful cases, independent data

analysis by several researchers, or the use of verbatim quotes are all ways to increase credibility. Sharing the study experiences and having the participants attest to the findings helps the researcher's credibility (Cope, 2014). According to Forero et al. (2018), a sustained and diversified connection with the study setting is necessary to build credibility.

A crucial component of credibility in qualitative research methods is triangulation. The convergence of data acquired from two or more sources is referred to as triangulation. It serves as a tool to support conclusions by employing one approach and confirming the results with another, as well as to develop a thorough understanding of the phenomenon (Cope, 2014).

It is a distinct occurrence to repeatedly uncover comparable conclusions from various data sources than it is to use several data sources or a range of field methodologies to do it. Triangulation is the process of using several sources to assess a study's validity and as pointed out by Stahl and King (2020), there are numerous variations of triangulation which are as follows:

Methodological triangulation - the use of multiple data collection or analysis techniques.

Data triangulation – using more than one sort of information to draw conclusions.

Investigator triangulation, - using several researchers for the conduct of side-by-side comparisons of specific findings.

Theoretical triangulation - application of various theoretical perspectives to comprehend findings; and

Environmental triangulation - examination of the intended emphasis in more than one scenario or context.

Another strategy for pursuing credibility is by using informants like tutors, and program directors to confirm researchers' perception. In general, this is known as "member checking" where "member" refers to various subjects who take part in various roles within a specific qualitative study (Stahl & King, 2020). In fact, it is considered a good research practice to check for members from different study roles and involvement levels. In order to receive their feedback on the validity of the data, research volunteers are frequently provided advance copies of study write-ups. In-person interviews can also involve member checking.

The researcher followed the TACT framework's credibility dimensions which include the use of data verification, a description of the data analysis strategy used by the researcher, interaction with participants during data analysis to corroborate the study's initial findings, direct quotations, and triangulation.

Transferability

Transferability in qualitative research relates to the concept that results from one study can be applicable to other contexts or people. The concept of reliability in a

quantitative technique is analogous to transferability in qualitative research (Houghton et al., 2013). Daniel (2019) says that transferability gives the reader evidence to evaluate how far the research findings are true and to demonstrate transferability, the researcher makes sure that participants are educated about the phenomenon being studied and that the sample was chosen and recruited based on their expertise. According to Cope (2014), a qualitative study is said to be transferable if the conclusions are meaningful to those who did not take part in the research and the findings are applicable to readers' personal experiences.

However, in order to achieve transferability, the researcher described the boundaries of the work as to who can be interviewed after having obtained permission from the old age homes, the conditions in which interviews were conducted, analysis of data, as well as any difficulties that the researcher encountered.

Reliability and Validity of Data

According to Roberts et al. (2006), reliability and validity are tools that demonstrate how carefully a research approach was carried out and how trustworthy the findings of that inquiry were. Both validity and reliability are essential components of any measurement method or instrument. Perfect validity or reliability is hard to achieve because there will always be some degree of mistake in measurements, even ones we believe to be correct (Kassu, 2019). The consistency with which a particular test, approach, or tool, such as a questionnaire, can produce comparable findings under various circumstances, assuming nothing else has changed, is known as a test's reliability. A more elusive concept is validity.

This examines how well our measurements correspond to the objectives of the measurement. That is, does it measure what it is supposed to measure (Linacre, 2000). Research must not deceive its users if it is to be helpful. The initial research topic, when and where data are collected, how those data are evaluated, and what conclusions are drawn are all factors that affect a study's reliability.

Validity

Validity describes how well a notion can be measured in a quantitative study. The reliability and validity of the tools (instruments) used to collect data must be taken into consideration when conducting or reviewing research. There are three basic types of validity, which are as follows: (Heale & Twycross, 2015):

Content validity - an assessment of the instrument's ability to adequately address all the material related to the variable. Namely, how thoroughly and precisely a research tool examines a construct. Face validity is derived from content validity whereby specialists are called upon to check if a measurement tool adequately represents the subject being evaluated.

Construct validity - the ability to deduce test results from the concept that is being researched. That is, how well an instrument measures the desired construct. There are three types of evidence that can be utilized to demonstrate the construct validity of a research tool.:

Homogeneity - the instrument used to measure only one construct.

Convergence - when two instruments assess concepts that are comparable to each other.

Theory evidence - When behavior matches the construct's theoretical expectations as determined by the instrument, it is said to be shown.

Criterion validity - Correlations can be performed between any other instrument measuring the same variable to determine the extent to which different instruments evaluate the same variable. For evaluating criterion validity, three techniques can be employed.:

Convergent validity - shows that a measurement tool has a significant correlation with other measurement tools employed to assess the same variable.

Divergent validity - illustrates a weak connection between a measurement tool and the measurement tool used to measure the various variables.

Predictive validity: the precision with which a tool can forecast future results.

Reliability

Reliability, or an instrument's accuracy, serves as the second quality indicator in a quantitative investigation. In other words, the degree to which a study tool consistently produces the same outcomes when used in the same situation repeatedly (Heale & Twycross, 2015). The consistency with which a certain test, technique, or tool, such as a

questionnaire, would produce comparable findings under various circumstances, assuming nothing else has changed, is referred to as the test's reliability. The consistency of a metric is a component of reliability. According to Heale and Twycross (2015), there are three attributes of reliability as explained below:

Homogeneity - It means how accurately a scale's elements measure a single construct. Using split-half reliability and item-to-total correlation, homogeneity, or internal consistency, is assessed. To determine split-half reliability, divide the results of a test or instrument in half. The two halves are correlated mathematically. Strong correlations demonstrate good dependability, while moderate correlations suggest that the instrument might not be trustworthy.

Stability – means the reliability of results obtained from successive testing using an instrument. Stability is evaluated by using the alternate-form or parallel reliability testing, as well as test-retest. Test-retest reliability measures how well an instrument performs when given to the same people several times in similar circumstances.

Equivalence – means consistency between replies from several instrument users or between different instrument configurations. Equivalence is assessed using inter-rater reliability. One can evaluate the level of qualitative agreement between two or more observers using the method described in this exam.

Reliability and Validity of Questionnaires

Since the consistency of study data determines how much the gathered facts can be trusted to provide repeatable outcomes (Kavanagh et al., 2016), the trustworthiness of the data gathered and processed for this study is something the researcher is certain of. Reliability of the instruments is demonstrated by the fact that the data was gathered by the researcher from (a) dependable sources; (b) old age homes registered with the Ministry of Social Security in Mauritius; and (c) individuals who offered concise answers to facilities and training not available. A gatekeeper letter was submitted to the management of each old age home visited for the survey regarding the accuracy of the data that was going to be gathered which helped to make them aware of the value and significance of the study. The researcher personally handled all questionnaires with the participants.

As far as validity of the research instruments is concerned, the researcher created three questionnaires containing close-ended and open-ended inquiries to obtain data from the three study participant groups. The researcher created the instrument for gathering data to record details unique to the problems being studied using what she has learnt about social entrepreneurship, the services available in old age homes, and ageing in isolation. The basic traits of the research participants are also included in the survey questionnaire information gathering sections. Following the grouping of research participants, the investigator gave the participants a questionnaire to complete while providing instructions to ensure reliable results. Using supporting data from earlier studies in the field of study, the researcher created the research tool (Nosratabadi et al., 2019).

With the use of validated questions, a well-structured questionnaire was created to investigate the obstacles obstructing the advancement of smaller and average-sized initiatives. This allowed for the collection and administration of objective data (Nosratabadi et al., 2019). The survey gathered information mainly about issues that may answer the research questions.

Furthermore, the reliability and validity of the research tools are improved upon validation by the University Research Ethics Committee (UREC). There is guarantee that the data collected for analyses are reliable and that it will be feasible to replicate the results based on the approach the researcher employs and the well-structured questionnaire that the researcher administers in person (Heale & Twycross, 2015).

Although evaluation is crucial, it is understood that the validity and reliability tests do have flaws. However, as stated by Singleton and Straits (2005), it is unquestionably preferable to have a measure than none at all.

Results of Findings

Data has been gathered from 20 selected old age homes across the country and prior to analysing such data, it is important to understand the demographics processes of Mauritius that have altered the age composition of the population and rendered ageing unavoidable. According to Statistics Mauritius (2022) and the World Atlas Data (2022),

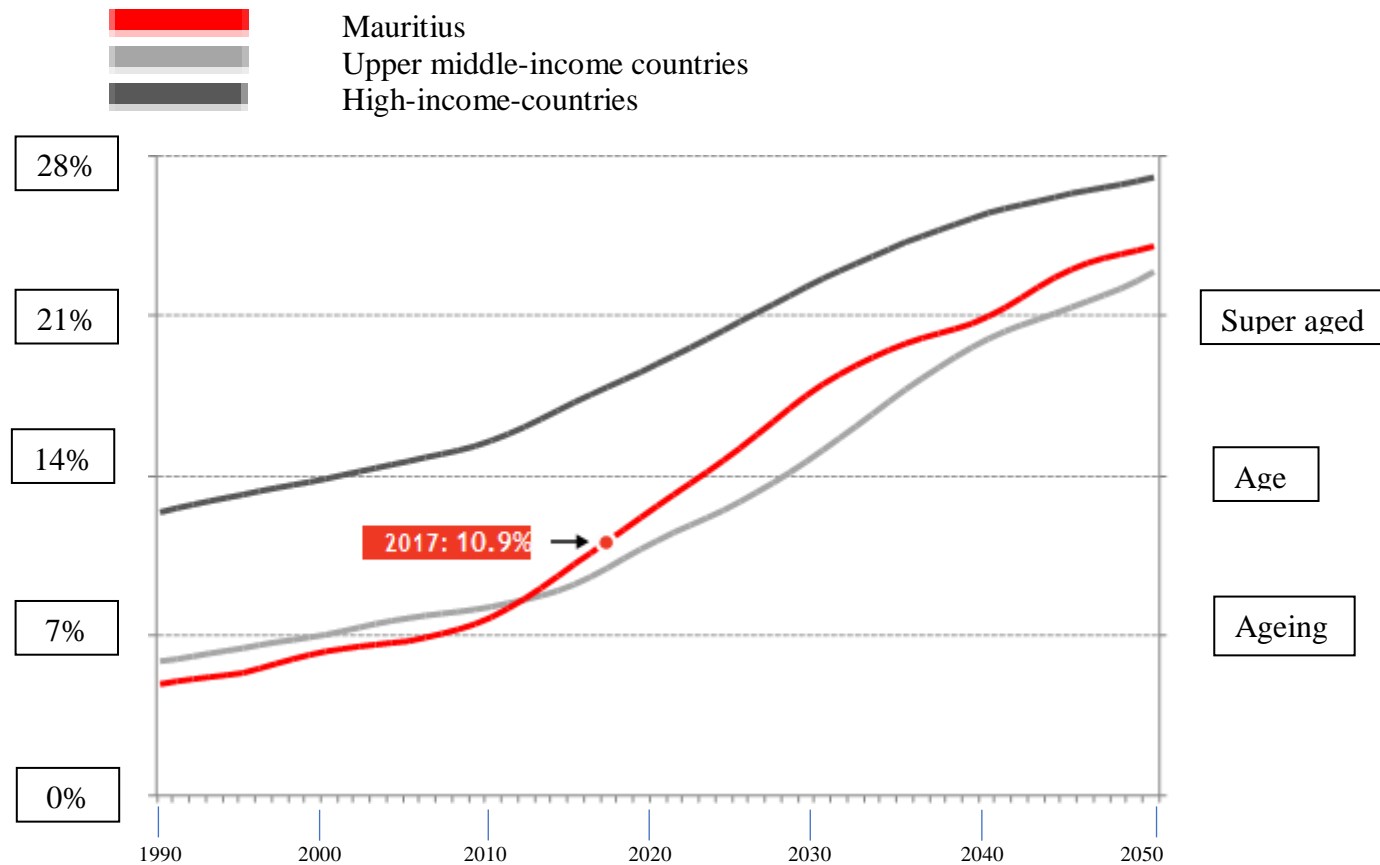
there were 1.27 million people living in Mauritius in 2022. The population of Mauritius grew at an average annual rate of 0.78% from 864,819 people in 1973 to 1.27 million people in 2022. In 2022, 70.9% of the population was between the ages of 15 and 64. This age group increased from 57.1% in 1973 to 70.9% in 2022 showing an average yearly growth rate of 0.44%. For the same year, 12.8% of the population of Mauritius was over 65 and from 1973 to 2022, the population of Mauritius citizens aged 65 and over increased from 3.7% in 1973 to 12.8% in 2022 at an average annual rate of 2.56%. While there is this rise at the old age population at an increasing rate, statistics also shows that Mauritius' fertility rate has also decreased to 1.4 births per woman in 2022 as compared to a fertility rate of 3.4 births per woman in 1973. Furthermore, the female population has increased at an average yearly rate of 0.05% from 49.5% in 1973 to 50.7% in 2022 (World Data Atlas, 2022).

It is important to closely follow the trend of the ageing population as there are some serious implications that should be considered. Pension schemes will be affected. With an ageing population, there are more beneficiaries that will claim pension for a lengthier time than presently. A number of long-term chronic diseases, as well as an increase in physical and mental incapacity, are also associated with population ageing. The other issue is an increase in health care demand, especially as women will make up the majority of the old population and other age-related government costs. Age-friendly housing and transportation must be provided so that senior citizens can maintain their independence for as long as possible.

Population ageing is developing as one of the key worldwide challenges of the 21st century, and increasing longevity is a historic success. The United Nations had proclaimed 1999 to be the International Year of Older People. Following a demographic shift from high fertility and death rates in the 1960s, Mauritius now has one of the lowest rates of population growth among emerging nations. The issue of ageing has inevitably resulted from this. While authorities have only been concerned with population ageing since the 1980s, the population of Mauritius has been ageing steadily for more than a century. The baby boom generation started turning 65 in the last ten years, which caused Mauritius' population to start ageing quickly. The country entered the category of an ageing society in 2008 when 7% of the population turned 65 or older and is expected to do so again in just five years when 14% of the population reaches 65. Such a demographic change has occurred in the US after more than 50 years as shown in figure 4.1. The change is happening in Mauritius as the country's population declines and based on Government forecast, the population of Mauritius will decrease by 8% to around 1.16 million in 2041.

Figure 4.1

People above 65 years as a Percentage of the Whole Population



Source: Adapted from *FP Analytics, 2018*

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According to FP Analytics (2018), Mauritius has been identified as the leading African country to proactively recognize ageing as a key issue for the wellbeing and competitiveness of its society and economy. The baby boom generation in Mauritius is

ageing leading to a significant impact on its future as a big portion of the population have reached advanced ages at a time when the economy is uncertain, health care spending is under pressure, and continued fiscal restraint is likely to be necessary.

Older people in Mauritius today are privileged to live in a nation offering social assistance such as universal pension, free high-quality healthcare, free public transport and other initiatives aimed at caring for the generation that has worked and contributed to the nation's development. Mauritius has a low level of absolute poverty. Less than 2% of people in 2012 were subsisting on less than \$2 a day. Citizens in Mauritius enjoy financial stability as the older population receives a combined universal pension from the age of 60 and earnings-related pensions are paid when they reach 65. However, the system is starting to face challenges due to the nation's accelerated rate of ageing.

When Mauritius gained its independence, its economy was built primarily on sugar cane. Since then, the economy has diversified to include financial services, textiles, sugar, and other industries. Over the previous 20 years, the nation's GDP has increased by more than three times and the speed and scope of the country's economic growth have resulted in three major changes for older adults: a younger generation pursuing more structured and time-consuming work in new industries, a change in family structure, and more widespread higher education that makes it easier for an increasing number of younger people to go abroad for work or further study.

Despite the prevalence of intergenerational living, the family structure of Mauritius is changing quickly, which has a substantial effect on the older population of the country. According to Statistics Mauritius (2022), more and more older individuals are lived independently, either alone or with just their spouse. As the population ages, Mauritius is reportedly facing two major issues: increased life expectancy and the irrevocable breakdown of the extended family. Housing structures, health care systems, social security, the protection of older people's rights and interests, and related development strategies are all significantly impacted by changing demographic patterns and the proportions of young and senior populations. Three distinct questionnaires were used to collect data from prospective residents, residents and employees of the 20 selected old age homes.

Age, gender, educational level, and region are considered as they affect living arrangements and social support and are part of the life course characteristics of elderly people. A significant degree of decreasing health and financial necessity are typically linked to ageing. Old age and poverty are closely related in emerging nations (Kalache & Sen, 1999). The patterns of living, exposures, and possibilities for health protection throughout life have a significant impact on health in old age. Age somewhat indicates a cohort effect on the choices of elderly people. In other words, older individuals are typically more conventional than younger people. High levels of co-residence are therefore anticipated. The same justification applies to educational achievement. Although having a higher level of education might give older people access to resources and tools that can

affect their economic and health condition, it also has the distinct impact of exposing them to new and unconventional perspectives.

Demographics of Prospective Residents' Questionnaire Survey

This survey's objective was to concentrate on the demand for old age homes among senior persons in Mauritius who have registered themselves to get admitted at an old age home and the waiting list's accuracy as a representation of this demand. Questions 1 to 6 inquire about gender, age, marital status, number of children and whether the prospective resident lives alone and also how long the latter has been on the waiting list to get admitted in a care home.

Table 4.1

Demographics Characteristics of Prospective Residents

	Frequency	Percent
Gender		
Male	13	38.2
Female	21	61.8
Age		
50-59 years	4	11.8
60-69 years	16	47.1
70-80 years	14	41.2
Marital Status		
Single	4	11.8
Married	10	29.4
Divorced	5	14.7
Widow	15	44.1

Note: $N = 34$

Source: Researcher's Survey: 2023

Table 4.1 shows that out of 34 respondents, there are more females in the population sample, 61.8% (n=21) against a male population sample of 38.2% (n=13), as it is the case in almost all countries of the world, elderly women outnumber men. Although 41.2% of the respondents are in the 70-79 years' age group, the majority (47.1%) are between 60-69 years old. The majority of the elderly on the waiting list to get admitted at an old age housing facility are widows (44.1%), followed by married seniors (29.4%), divorced (14.7%) and 11.8% are single.

Demographics of Residents - Residents Questionnaire Survey

The purpose of the residents' questionnaire was to gather data to learn about the socioeconomic and health characteristics of the residents, as well as their perceptions of their physical and social environments, general experiences with ageing in place, plans to move, care needs, care utilization patterns, and accessibility. The table below shows the demographics characteristics of such prospective residents.

Questions 1 to 5 of the questionnaire enquires about the sex, age group, marital status, number of children and the level of education attained, socioeconomic standing, and residential circumstances of senior citizens. Information collected is summarised in table 4.2 below showing the demographic characteristics of residents.

Table 4.2

Demographic Characteristics of Residents

	Frequency	Percent
Gender		
Male	113	39
Female	180	61
Age		
20 - 29 years	1	0.5
30 - 39 years	1	0.5
40 - 49 years	15	5
50 – 59 years	35	12
60 - 69 years	46	16
70 - 80 years	195	66
Have Children		
Yes	201	69
No	92	31
Marital Status		
Single	72	25
Married	36	12
Divorced	56	19
Widow	129	44
Level of Education		
Primary School	102	35
Secondary School	123	42
Bachelor's Degree	13	4
Master's Degree	17	6
Ph. D or Higher	2	1
Prefer not to answer	36	12

Source: Researcher's Survey: 2023

Table 4.2 shows 39% of the sample residents are males and 61% are females. Residents who participated in the survey are from 20-80 years old and have been put in 6

groups from 20-29 years old to 70-80 years old. It is noted that a majority of 66% of residents are in the age group 70-80 years old. 25% of the interviewees are single, 12% married, 15% divorced and a majority of 44% are widowed. 69 % have children. 12% of the participants abstained to answer the question regarding level of education and all of the remaining 88% attended school, starting with 35% for primary school, 42 % secondary schools, 4% studied up to bachelor's degree, 6% are holders of Master's degree and 1% has studied up to doctorate level.

Questions 6 to 10 collect data about the resident's hometown or village, their decision to move at an old age home, the family situation prior to moving in the old age home, the factors that compelled them to take such decisions, as summarised in Table 4.3.

Table 4.3

Place of Residence of Residents

	Frequency	Percent
Hometown/Village		
Town/urban	129	44
Village/rural	129	44
Abroad	35	12
Length of Stay in Hometown/Village		
1 - 5 years	20	7
6 - 15 years	41	14
16 - 25 years	46	16
26 - 35 years	20	7
36 - 45 years	35	12
Above 45 years	131	44
Own Decision to Move in Old Age Home		
Yes	170	58
No	123	42
Family Situation Prior to Shifting in Old Age Home		
Alone	103	35
Children	56	19
Relatives	109	37
Other	25	9

Source: Researcher's Survey: 2023

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Table 4.3 shows an equal percentage of residents are from urban and rural areas. 12% of the participants are Mauritians who lived and worked abroad and have returned to Mauritius after their retirement. The survey also revealed that 44% of the participants have been staying in their hometown or village for over 45 years. 58% said that it was their own

decision to move home in an old age home while 42% were convinced to do so. Prior to moving to the old age homes, 35% were staying alone, 19% were with their children, and 37% with relatives.

Questions 11 to 37 are structured and closed-ended to collect data about the number of years they have been staying at the old age home, the facilities they expect to get during their stay, whether they are happy and their living in old age homes, their wellbeing, health issues, potential health care and assistance required and the services and facilities offered. Such data are analysed under the data analysis section to test the respective hypotheses.

Demographics from the Employees' Questionnaire Survey

A structured survey questionnaire with 38 questions was used to collect demographics and data from employees of the selected old age homes such as caregivers, nursing staff, managers and helpers. Questions 1 to 13 of the questionnaire inquiries about gender, age group, marital status, the level of education attained are summarised in table 4.4.

Table 4.4

Demographic Characteristics of Employees

	Frequency	Percent
Gender		
Male	9	10
Female	85	90
Age		
20 - 29 years	41	44
30 - 39 years	13	14
40 - 49 years	26	28
50 – 59 years	10	10
60 - 69 years	4	4
Marital Status		
Single	36	38
Married	47	50
Divorced	6	7
Widow	4	4
Prefer not to answer	1	1
Level of Education		
Primary School	14	15
Secondary School	62	66
Bachelor's Degree	15	16
Master's Degree	2	2
Prefer not to answer	1	1

Note: $N = 94$

Source: Researcher's Survey: 2023

Note. This table did not fit on the bottom of the previous page. Therefore, the entire table was moved to the next page, as required by APA Referencing Guide.

Table 4.4 shows only 10% male staff working in old age homes in different position and 90% of the staff are females. 44% are in the 20-29 years old age group, 14% being 30

- 39 years, 28% 40 - 49 years and just 10% in the 50-59 age bracket. 50% of staff are married and 38% single. The majority of the participants (66%) studied up to secondary school. 16% have bachelor's degrees and 2% master's degrees.

Information regarding the job performed by employees was collected such as their position, prior work experience, employee's direct involvement with the residents and the shifts system available in the old age homes. This information is summarised in table 4.5.

Table 4.5
Employees Job Related Information

	Frequency	Percent
Position		
Administration	14	15
Nursing Staff	18	19
Caregivers	37	39
Senior Caregivers	11	12
Other (Housekeeper, Cook, Kitchen)	14	15
Shift System		
Yes	76	81
No	18	19
Direct Involvement		
Yes	84	89
No	10	11
Prior Working Experience		
Yes	35	37
No	59	63
No. of Shifts		
2 Shifts	80	85
3 Shifts	14	15

Note: N = 94

Source: Researcher's Survey: 2023

Table 4.5 shows a majority (39%) of the staff are Care givers with 12% Senior caregivers. 19% are Nursing staff, 15% works in administration and the remaining 15% are in housekeeping and kitchen. 85% of the homes in the sample population are working on 2 shifts while 15% have 3 shifts. 81% of the staff work on the shift system and 85 % of them are directly involved with the residents. Only 37% have prior working experience and 63% do not have experience.

Questions 14 to 38 are structured and open-ended aimed to gather data from employees with regards to their experiences of working in old age homes, the challenges that they must deal with every day, the types of activities they conduct to entertain residents, the different types of assistance they provide and what training are required. In the following sections, the methods and data mentioned above will be analysed to answer the research questions and test hypotheses of the research paper.

Analysis of Quantitative Data

Data gathered from residents have been analysed using the qualitative method and the IBM SPSS will be used. The IBM SPSS (Statistical Package for the Social Sciences) is a robust statistical software platform that offers a comprehensive range of capabilities to enable a firm to derive useful insights from its data (IBM, 2023). With the help of the software, users can do statistical analysis on data and create tabulated reports, charts and plots of distributions and trends, descriptive statistics, and sophisticated statistical analysis. Many capabilities are offered by SPSS. This thesis has used different types of

methodologies, including reliability tests, independent t-tests, regression analysis and one-way ANOVA (Analysis of variance) for testing.

According to Laerd (2018), under the IBM SPSS, the Cronbach's alpha reliability test uses questions with Likert scales to show how consistent a questionnaire is. Cronbach's alpha is one approach to gauge the strength of such consistency. In other words, the reliability of any measurement relates to the degree to which it is a consistent measure of a notion. The most widely used indicator of internal consistency (reliability) is Cronbach's alpha and is generally used when a questionnaire contains several Likert items that make up a scale and researchers want to know if the scale is dependable. The Cronbach alpha is used to test reliability of data collected to ensure trustworthy results are generated. An overall evaluation of a measure's reliability is provided by the coefficient of reliability, which has a range of 0 to 1 (University of Virginia, 2023). If every item on the scale is completely unrelated to one another (that is, if they are not correlated or share no covariance), then $= 0$; however, if every item has a large covariance, then it will increase as the scale's item count approaches infinity, moving closer to 1. In other words, the more items have shared covariance and likely assess the same underlying notion, the greater the coefficient. The internal consistency of the scale's items is inversely correlated with how near Cronbach's alpha coefficient is to 1.0 and according to D. George and Mallery (2010), there is a rule of thumb to test whether the items in the scale are reliable as shown in table 4.6.

Table 4.6

Cronbach Alpha – Internal Consistency

Cronbach's alpha	Internal consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Source: Adapted from *SPSS for Windows* by D. George & Mallery, 2010

Basic statistics for the data under study should be generated to obtain the measures of location and dispersion. According to Campbell et al. (2016), measurements of location are used to identify the data's central tendency. The mean, median, and mode are among them and for this study, mean values are used. The distribution of the data is described by measures of dispersion. They comprise variance, standard deviation, interquartile range, and range.

Regression analysis will be used but firstly we must understand correlation. The correlation between variables should be tested. When two variables are correlated, it means that if one variable's value changes, the other variable also tends to change to a particular value. Knowing how those two variables interact can help us forecast how each variable will behave (Frost, 2022). Different types of correlation may be used for different types of data and the most common is the Pearson's correlation coefficient. The linear correlation between two sets of data is measured by the Pearson's correlation coefficient. It is the ratio of the standard deviations of two variables' standard deviations to their covariance (Frost,

2022). It is effectively a normalized measurement of covariance, with the result always falling between -1 and 1. It is the ratio between the covariance of two variables and the product of their standard deviations.

There is a hypothesis test for correlations. This test, like all hypothesis tests, uses sample data to investigate two claims about the population that the sample was taken from that are mutually incompatible. Based on the value of the sample correlation coefficient r , the null hypothesis that the true correlation coefficient is equal to zero is tested using Pearson's correlation coefficient. The Pearson's coefficient ranges from -1.0 to +1.0, and can be explained as follows (Frost, 2022):

-1.0 – there is a strong inverse relationship

0 – there is no relationship

+1.0 – there is a strong direct relationship

Using Pearson correlations, the following two assumptions are tested (Frost, 2022):

Null Hypothesis - $\rho = 0$ - There is no linear relationship between the two variables.

Alternative Hypothesis - $\rho \neq 0$ - A linear relationship exists between the two variables, as an alternative.

There is no linear relationship if the correlation is 0. The sample provides enough evidence to reject the null hypothesis and draw the conclusion that the correlation does not equal zero if your p-value is less than your significance level. In other words, the sample

results are consistent with the hypothesis that the link holds true across the population (Taylor, 2023). P-value assesses how strongly your evidence disproves the null hypothesis, which holds that there is no correlation between the two groups being compared. To measure a correlation, the Pearson coefficient is used. The p-value aids in determining the validity of an association (statistically significant). It is best to read the Pearson coefficient and p-value together rather than separately. The correlation coefficient ought to be a reliable indicator of the relationship's strength (Frost, 2022).

A common first step in data analysis is testing for normality which refers to a particular type of statistical distribution known as the normal distribution, often known as the bell-shaped curve or the Gaussian distribution (Feldman, 2018). The normality test is actually a test of the hypothesis and the Shapiro-Wilk test is widely used for small samples to determine if a sample fits a normal distribution. According to Malato (2022), the Shapiro-Wilk test is a hypothesis test done to a sample, with the null hypothesis being that the sample was drawn from a normal distribution. If the p-value is low, we can reject the null hypothesis and conclude that the sample did not come from a normal distribution.

The null hypothesis (H_0) states that there is no deviation from the mean in the data that is, the data's frequency distribution is evenly distributed. The degree of symmetry in a distribution is measured by skewness. The skewness of the normal distribution is zero, and it is symmetrical. Kurtosis quantifies how thick the tail ends of a distribution are in respect to the distribution's tails. A 3.0 kurtosis characterizes the normal distribution (J. Chen,

2023). The mean and standard deviation of a normal distribution are 0 and 1, respectively and has a kurtosis of 3 and zero skew.

The alternate hypothesis is that the data is out of the ordinary (H_a). The decision on whether to reject or not to reject the null will be based on your p-value, regardless of the statistical normality test applied. There are 3 main benefits of conducting a normality test (Feldman, 2018):

It confirms the distribution - a normality test will help determine whether data is not normal rather than tell whether it is normal.

Provides guidance - the p-value gives an indication whether the underlying assumption of the statistical tool has been complied with so that analysis may be done.

The use of graphical tools makes it simple to determine whether data is normally distributed.

When there are one or more independent variables, regression analysis is used to estimate the associations between these variables. Regression analysis is a collection of statistical techniques used to simulate the long-term link between variables and gauge how strongly the relationships between them are related. The relationship between a dependent variable and an independent variable is evaluated using a simple linear regression model. Similar to the simple linear model in many ways, multiple linear regression analysis differs from it in that it incorporates several independent variables (Taylor, 2023).

Regression analysis gives the possibility to elaborate in various ways on correlation. For instance, if there is more than one variable to explain a certain change, they can be included in the model to increase accuracy. Regression may be simple or multiple. Simple regression is used when just one independent variable is present in the model and multiple regression uses more than one independent variable. Despite the variations in titles, actually the same analysis, with the same assumptions and interpretations.

Mathematically, regression analysis explains the connections between independent variables and a dependent variable. Regression is used for the following two purposes (Taylor, 2023):

To comprehend how these factors are related to one another. What relationship exists between changes in the independent variables and those in the dependent variable?

By inserting values for the independent variables into the regression equation, the dependent variable can be predicted.

In regression analysis, a variation of the Pearson correlation coefficient is visible. R-squared is the primary measure of how well a regression model fits the data. This statistic displays the proportion of variance in one variable that can be explained by other factors. R-squared is just a pair of variables' Pearson's correlation coefficient squared. (Frost, 2022).

The main results of a regression are the P-values and coefficients. The connections between the independent and dependent variables are explained by these statistics, and determine if the variables are statistically significant.

Low p-values (usually 0.05) signify statistical significance for the independent variable. Inferential statistics include regression analysis. The p-values therefore aid in determining if the relationships you detect in your sample are also present in the larger population. The coefficients for the independent variables show how the dependent variable typically changes when the independent variable (IV) changes by one unit while keeping the other independent variables under control (Frost, 2022).

Analysis of Qualitative Data

Qualitative analysis is the methodology used to analyse data collected from employees working in old age homes. It involves the gathering, analysis and interpretation of facts that are challenging to convert to numbers and display graphically (Štefanović, 2022). This kind of information typically relates to the social realm and the ideas and actions of its inhabitants. According to Creswell and Poth (2018), a researcher can employ a qualitative method to gather data from participants through open-ended questions. Data is typically compiled from transcripts or interviews and has a lot of text which must be properly developed to guide the audience through it.

When conducting research, there are many qualitative designs that can be used and take the form of narrative research, phenomenological research, grounded theory research, ethnographic research, case study research, or a straightforward qualitative study. In order to research and answer some of the research questions of this study, data has been gathered from employees and specialists in the field of senior housing through an open-ended questionnaire. The findings of the survey are presented in the following sections and analysed using the qualitative methodology.

Results and Evaluation of Findings

Prior to summarizing the results of the tested hypotheses for the demand, living situations, facilities senior adults get in old age homes, and the aptitude of employees, it is critical to characterize the condition of the sample of elderly people. The descriptive analysis gives the required background information to comprehend the characteristics of elderly people and the people taking care of them on a daily basis. The following sections will address each of the research questions, summarize and evaluate the findings accordingly.

Analysis and Evaluation of Findings for Research Question 1 (RQ₁)

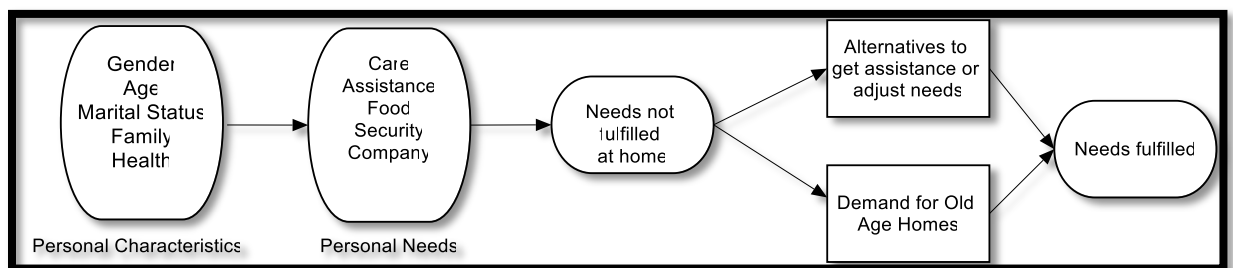
According to CSO (2022), the population of citizens 65 years and above was 12.8% as compared to 9.12% in 2000 (CSO, 2001) and 3.7% in 1973. The population of Mauritius is rapidly ageing as this segment of the population has increased by an annual rate of 2.56% since 1973. The ageing of the population is all due to changes in medical advancements, the way healthcare is delivered, better informed patients and the availability of predictive

medical information (Garza, 2016). As a result, the nature of health care services demanded by the elderly has changed significantly, causing a shortage of personnel in the healthcare sector and gradually leading to a greater need for old age homes.

To answer RQ₁ “*What is the impact of old age housing facilities on ageing population in Mauritius?*”, a survey was conducted with regards to the capacity of old age homes and the actual demands from senior citizens. The objective is to learn about the factors that influence the need for such facilities. There exists a link between the personal characteristics of elderly people, their needs, and demand as depicted in the model below which provides a framework for investigating these drivers and associated variables.

Figure 4.2

Conceptual Model - Demand for Old Age Homes



Source: Self Made by Researcher, 2023

The model assumes that universal needs and demands of people are influenced by personal characteristics such as gender, age, marital/family and health status and when such needs are not met, due to factors in their household environment, they look for other

resources to meet their needs, among which is the demand for care homes. The quantitative method has been used to answer RQ₁. The null (H_0) and alternate (H_A) hypotheses are as follows:

H_{01} - There is no impact of old age housing facilities on ageing population in Mauritius

H_{A1} – The demand for old age housing facilities changes with an ageing population.

The dependent variable is the waitlist demand for old age housing facilities, meaning people who have registered to get admission at an old age home and are waitlisted. The independent variables are the level of loneliness, the ability to perform daily activities and health status. To test this hypothesis, a survey was conducted focusing on the demand for old age homes among senior persons in Mauritius and the waiting list's accuracy as a representation of this demand.

This section summarises the findings of the survey of senior citizens who have registered with an old age home and are on the waiting list to get admitted. In table 4.7, the descriptive statistics of this sample population of 34 respondents with regards to gender, age, marital status and since how long has application been made to get admitted at an old age home.

Table 4.7

Demographics of Respondents – Applicants for Old Age Homes

	Frequency	Valid Percent
Gender		
Male	13	38.2
Female	21	61.8
Age		
50-59 years	4	11.8
60-69 years	14	41.2
70-79 years	12	35.3
80-90 Years	4	11.8
Marital Status		
Single	4	11.8
Married	10	29.4
Divorced	5	14.7
Widow	15	44.1
Registration to Get Admitted at an Old Age Home		
Less than a month	13	38.2
Less than 6 months	21	61.8
More than 6 months	Nil	-

Note: N=34

Source: Researcher's Survey: 2023

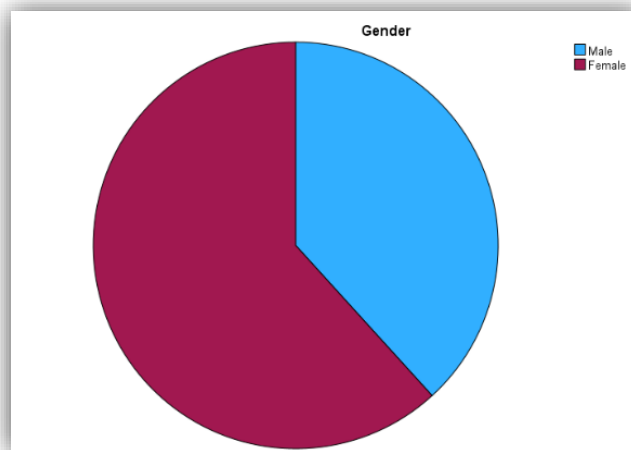
As shown in Table 4.7, majority of participants were female (n= 21, 61.8%), while 13 participants (38.2%) were male. Most of the senior applicants (n = 41.2%) are in the 60-69 years' age group followed by 35.3% (n = 12) in the 70-79 years' age group. 44.1% are widowed, 29.4% married and 14.7% divorced. Only 11.8% are single applicants. 61.8% (n = 21) of them have applied to get admitted at an old age home since less than 6 months

against 38.2 % ($n = 13$) for less than a month. There was no respondent who had been waiting for more than 6 months.

The results for gender and age group distributions of the participants are represented on the pie charts in Figures 4.3 and 4.4.

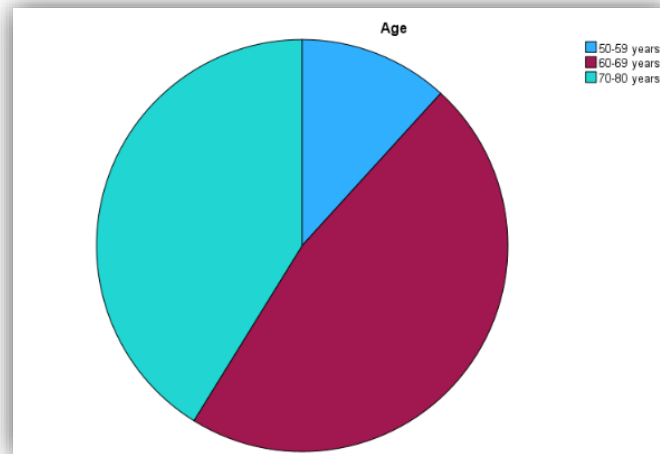
Figure 4.3

Gender Distribution of the Participants



Source: Researcher's Survey: 2023

Figure 4.4

Age Group Distribution of Participants

Source: Researcher's Survey: 2023

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The variables used in this study to test H_01 and the corresponding factors for each variable are shown in table 4.8.

Table 4.8

H₀1 - Description of Variables

Variable	Factors
Dependent Variable	
Waitlist demand for old age home	Would you accept an offer if it is not the first choice Would you accept any offer immediately How urgent is it to get an admission Would you accept an offer in any area
Independent Variable	
Loneliness	I stay with children/family I have close friends if I have problems I see my children frequently I can rely on my children I do not stay alone when others are at work I do not feel sad
Performance of Daily Activities	I can prepare/cook my meals I can eat by myself I bath by myself I can dress up by myself I clean the house I do my shopping
Health Status	I am healthy I feel fine I do not stress I do not experience inner void

Source: Researcher's Survey: 2023

Note. This table did not fit on the bottom of the previous page. Therefore, the entire table was moved to the next page, as required by APA Referencing Guide.

A reliability analysis was conducted to test the reliability of the variables used to test H_01 as shown by the values of Cronbach Alpha in Table 4.9.

Table 4.9

H₀₁ - Reliability Analysis

	Variable Name	No. of Items	Alpha	Internal Consistency
Dependent Variable	Waitlist Demand for Old Age Home	4	0.952	Excellent
Independent Variable	Loneliness	6	0.912	Excellent
Independent Variable	Performance of Daily Activities	6	0.838	Good
Independent Variable	Health Status	4	0.777	Acceptable

Note: Alpha = Reliability Test

Source: Researcher's Survey: 2023

From the reliability analysis shown in table 4.9, we can say that there is internal consistency in the survey conducted as all the Cronbach alphas are above 0.7 (D. George & Mallery, 2010)

The descriptive statistics of the study including mean (M), standard deviation (SD), Skewness and kurtosis were measured as shown in table 4.10.

Table 4.10

H₀₁ - Descriptive Statistics of Variables

Variables	Mean	Std. Deviation	Skewness	Kurtosis
Loneliness	2.662	0.789	-0.031	-1.393
Daily-Activities	2.059	0.550	-0.487	-0.273
Health-Status	3.338	0.4559	-0.179	-0.905

Source: Researcher's Survey: 2023

As shown in Table 4.10, the values for loneliness (M = 2.662, SD = 0.789, Skewness = -0.031, Kurtosis = -1.393), for Daily Activities (M = 2.059, SD = 0.550, Skewness = -0.487, Kurtosis = -0.273) and for Health Status (M = 3.338, SD = 0.4559, Skewness = -0.179, Kurtosis = -0.905).

The Pearson's correlation analysis was performed to measure the direction and strength between different variables as shown in Table 4.11.

Table 4.11

H₀₁ - Correlations Matrix

	Demand	Loneliness	Daily Activities	Health Status
Demand	1			
Loneliness	-.492**	1		
Daily Activities	0.067	-0.218	1	
Health Status	-0.207	0.043	0.185	1

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

Source: Researcher's Survey: 2023

Table 4.11 shows loneliness has a moderate and negative correlation with demand ($r = -0.492$, $p < 0.01$). According to Frost (2022), negative coefficients illustrate circumstances in which the value of one variable tends to decrease as the value of the other variable increases. Therefore, the more the demand for home (admission), loneliness will be reduced. Positive coefficients show that as the value of one variable rises, so does the value of the other variable (Frost, 2022). Daily activities (dependency) have a strong and positive correlation with demand ($r = 0.067$, $p < 0.01$) which means that an increase in the level of dependency for their daily activities there is an increase in the demand (admission). Demand has a moderate and negative correlation with health status ($r = -0.207$, $p = < 0.01$), meaning that there is a decrease in health status with an increase in the demand (admission). There is a negative and weak correlation between loneliness and daily activities ($r = -0.218$, $p < 0.01$), while daily activities and health status are positively and weakly correlated.

A regression analysis is performed to evaluate the influence of loneliness, daily activities and health status on the demand of old age homes by elderly people as shown in Table 4.12 and evaluated below.

Table 4.12

H₀₁- Regression Analysis

Independent Variables	R2	Adjusted R	F	Beta	t-test	Sig/p
	0.293	0.196	3.005			
Loneliness				-0.295	-2.920	0.007
Daily Activities				0.020	0.135	0.894
Health Status				-0.223	-1.274	0.213
Age				-0.097	-0.824	0.417

Dependent Variable: Demand

Predictors: (Constant), Age, Loneliness, Daily Activities, Health Status

Source: Researcher's Survey: 2023

Note. This table did not fit on the bottom of the previous page. Therefore, the entire table was moved to the next page, as required by APA Referencing Guide.

The dependent variable (demand for old age home) was regressed on predicting variables of loneliness, daily activities and health status. R – Square: The coefficient of determination measures if the model is a good fit (Frost, 2022). The results of data analysis for H₀₁ show that 29.3% variation ($R^2 = 0.293$, $F = 3.005$, $p < 0.01$) in demand for old age home. This indicates that the three independent variables under study impact on demand for old age home. In this case R-square is 0.293 which is quite low. According to Frost (2022), R-squared does not show whether or not a regression model fits the data well. A good model can have a low R^2 value. On the other hand, a biased model can have a high R^2 score.

Additionally, coefficients were further assessed to evaluate the impact of each independent variable on demand for old age homes. The coefficient for loneliness ($\beta = -$

0.295, $p < 0.01$) indicates that with one unit change in loneliness 0.295 negative units will change in the demand for old age home. The significant value of the coefficient was 0.007, which is smaller than the level of significance of 1% (0.01). The results ($t = -2.920$, $p = 0.007$) support the hypothesis that loneliness has a negative impact on demand for old age homes. The null hypothesis is rejected in favor of the alternate hypothesis.

The coefficients for daily activities ($\beta = 0.020$, $p = 0.894$) indicates that one unit change in daily activities 0.02 units will change in the demand for old age home. The significant value of the coefficient was 0.894, which is greater than the level of significance of 1% (0.01). The results ($t = 0.135$, $p = 0.894$) do not support the hypothesis that daily activities have an impact on demand for old age homes. The null hypothesis is therefore accepted.

The coefficients for health status ($\beta = -0.223$, $p = 0.213$) indicates that one unit change in health status 0.223 units will change in the demand for old age home. The significant value of the coefficient was 0.213, which is greater than the level of significance of 1% (0.01). The results ($t = -1.274$, $p = 0.213$) do not support the hypothesis that health status has an impact on demand for old age homes. The null hypothesis is accepted.

Analysis and Evaluation of Findings for Research Question 2 (RQ₂)

As a person grows older, more care and assistance are required to perform daily activities. In addition to temporary home care, older individuals frequently need assistance

with medical care and to go to their medical facilities. One of the major issues with older people is also the disregard for cleanliness, personal care and struggling to dress (Boves, 2021). Very often they are affected by loneliness and in the absence of assistance in their normal place of residence for several reasons, they decide to move to an old age home. One of the greatest benefits of living at an old age home is, unquestionably, the availability of 24-hour assistance and medical care (AWOC, 2023).

For RQ₂ “What are the effect of relative supports on old age homes in Mauritius?” the quantitative method has been used to answer RQ2. The null (H₀) and alternate (H_A) hypotheses are as follows:

H₀₂ - “There is no effect of relatives support on old age home in Mauritius people”.

H_{A2} – “Relatives cannot provide support to assist elderly people in their daily lives.

To test H₀₂, Get Support is used as the dependent variable and the independent variables are the level of loneliness, assistance and healthcare required, and socialization of older adults already residing at an old age home in Mauritius.

This section summarizes the findings of the survey conducted in a sample population of old age homes in Mauritius from 293 respondents. Descriptive statistics of this sample population with regards to gender, age, marital status and decision to move into an old age home. As shown in Table 4.13, majority of participants were female (n= 189, 64.5%), while 104 participants (35.5%) were male.

Table 4.13

RQ2 - Demographics of Respondents

	Frequency	Percent
Gender		
Male	104	35.5
Female	189	64.5
Age		
20-29 years	5	1.7
30-39 years	5	1.7
40-49 years	11	3.8
50-59 years	22	7.5
60-69 years	30	10.2
70-79 years	220	75.1
Marital Status		
Single	79	27.0
Married	30	10.2
Divorced	59	20.1
Widow	125	42.7
Own Decision		
Yes	158	53.9
No	135	46.1

Note: N=293- Response from Older Adults residing in Old Age Homes

Source: Researcher's Survey: 2023

The variables to test H₀₂ and the related factors for each variable are shown in the table 4.14.

Table 4.14

H₀₂ - Description of Variables

Variable	Factors
Dependent Variable	
Support	Get support for my personal care Get support for my healthcare Get support to perform my daily activities Get support to do my shopping
Independent Variables	
Loneliness	I live with my family I have close friends I have regular visits I can rely on my family
Assistance & Healthcare	I need assistance I need personal safety For better nutrition For better healthcare
Socialization	Meet people of same age group Proximity with people For variety of activities

Source: Researcher's Survey: 2023

Note. This table did not fit on the bottom of the previous page. Therefore, the entire table was moved to the next page, as required by APA Referencing Guide.

A reliability analysis was conducted to test the reliability of the variables used to test H₀₂ as shown by the values of Cronbach Alpha in Table 4.15.

Table 4.15
H₀₂ - Reliability Analysis

	Variable Name	Alpha	No. of Items	Internal Consistency
Dependent Variable	Get Support	0.895	4	Good
Independent Variable	Loneliness	0.866	4	Good
Independent Variable	Assistance & Healthcare	0.927	4	Excellent
Independent Variable	Socialization	0.816	3	Good

Note: Alpha = Reliability Test

Source: Researcher's Survey: 2023

Note. This table did not fit on the bottom of the previous page. Therefore, the entire table was moved to the next page, as required by APA Referencing Guide.

From the reliability analysis shown in table 4.15, we can say that there is internal consistency in the survey conducted as all the Cronbach alpha are above 0.7 (Frost, 2022).

The descriptive statistics of the study including mean (M), standard deviation (SD), Skewness and kurtosis were measured as shown in table 4.16.

Table 4.16

H₀2 - Descriptive Statistics of Variables

Variables	Mean	Std. Deviation	Skewness	Kurtosis
Get Support	2.24	0.785	0.392	-0.822
Loneliness	2.68	0.839	-0.134	-1.170
Assistance & Healthcare	1.68	0.898	1.321	0.107
Socialization	2.44	0.970	-0.093	-1.128

Source: Researcher's Survey: 2023

Note. This table did not fit on the bottom of the previous page. Therefore, the entire table was moved to the next page, as required by APA Referencing Guide.

As shown in Table 4.16, the values for get support ($M = 2.24$, $SD = 0.785$, Skewness = -0.392, Kurtosis = -0.822), for loneliness ($M = 2.68$, $SD = 0.839$, Skewness = -0.134, Kurtosis = -1.170), for assistance & healthcare ($M = 1.68$, $SD = 0.898$, Skewness = 1.321, Kurtosis = 0.107) and socialization ($M = 2.44$, $SD = 0.970$, Skewness = -0.093, Kurtosis = -1.128).

Pearson's correlation analysis was performed to measure the direction and strength between different variables as shown in Table 4.17.

Table 4.17

H₀₂ - Correlations

	Get Support	Loneliness	Assistance & Healthcare	Socialization
Get Support	1			
Loneliness	0.072	1		
Assistance & Healthcare	-0.053	.180**	1	
Socialization	0.010	.252**	.242**	1

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

Source: Researcher's Survey: 2023

Table 4.17 shows loneliness has a weak and positive correlation with get support ($r = 0.072$, $p < 0.01$), which means that the more there is loneliness, get support will increase (Frost, 2022). Assistance & healthcare and get support are weak and negatively correlated ($r = -0.053$, $p < 0.01$), which means that a decrease in Assistance and healthcare will lead to an increase in get support. Socialization and get support are weak and positively correlated ($r = 0.072$, $p < 0.01$), which means that an increase in socialization will lead to an increase in get support.

A regression analysis is performed to evaluate the influence of loneliness, assistance and healthcare and socialization on get support as shown in Table 4.18 and evaluated below.

Table 4.18

H₀₂ - Regression Analysis

Independent Variable	R²	F	Beta	t-test	Sig/p
	0.011	0.818			
Loneliness			0.079	1.384	0.167
Assistance & Healthcare			-0.063	-1.174	0.241
Socialization			0.008	0.150	0.881

a. Dependent Variable: Get Support

b. Predictors: (Constant), Socialization, Assistance & Healthcare, Socialization

Source: Researcher's Survey: 2023

As shown in table 4.18, the dependent variable (get support) was regressed on predicting variables of loneliness, assistance & healthcare and socialization. R – Square: The coefficient of determination measures if the model is a good fit (Frost, 2022). The results of data analysis for H₀₂ show that 1.1% variation ($R^2 = 0.011$, $F = 0.818$, $p < 0.01$) in get support. P values for the three independent variables under study are greater than 0.01. This means that deviation from the null hypothesis is not statistically significant, and the null hypothesis is accepted.

Additionally, coefficients were further assessed to evaluate the impact of each independent variable on get support. The coefficients ($\beta = 0.079$, $p = 0.167$) indicates that with one unit change in loneliness 0.079 positive units will change in the get support. The significant value of the coefficient was 0.167, which is greater than the level of significance

of 1% (0.01). The results ($t = 1.384$, $p = 0.167$) support the hypothesis that loneliness has an impact on get support and the hypothesis is not rejected.

The coefficient for assistance and healthcare ($\beta = -0.063$, $p = 0.241$) indicates that one unit change in assistance & healthcare 0.063 negative units will change in get support. The significant value of the coefficient was 0.241, which is greater than the level of significance of 1% (0.01). The results ($t = -1.174$, $p = 0.241$) support the hypothesis that assistance & healthcare has an impact on get support and the null hypothesis is accepted.

The coefficients for socialization ($\beta = 0.008$, $p = 0.881$) indicates that one unit change in socialization 0.008 units will change in get support. The significant value of the coefficient was 0.881, which is greater than the level of significance of 1% (0.01). The results ($t = 0.150$, $p = 0.881$) support the hypothesis that socialization has an impact on get support and the null hypothesis is accepted.

Analysis and Evaluation of Findings for Research Question 3 (RQ₃)

Even today, choosing to live at an old age home is not a simple choice. Contrary to popular belief, residential institutions are not simply places to "park" the elderly. The care of individuals has been positioned at the core of residential centers' operations in recent years, and as a result, they have undergone significant change and have emerged as an excellent substitute for aged people. Particularly for those who desire companionship but

also want to maintain their independence. Or for individuals whose families are unable to provide the extremely specific medical care they require (AWOC, 2023).

Boves (2021) says that there are several benefits of living at an old age home. These facilities have a committed medical staff that includes licensed physicians, nurses, and caretakers who are on call 24/7 and elderly people are handled with love, care, and compassion here. In case of an emergency, fast medical care is provided and very often such institutions are connected with top hospitals and ambulance services. It's crucial to lead an active life both physically and intellectually if one wants to age well. To achieve this, old age housing facilities provide the residents with access to senior communities where they can make new friends, participate in group activities, and live carefree lives in addition to supported living services.

RQ₃ – “What are effect of the current facilities provided in existing old age housing facilities in Mauritius?” looks into the current facilities being provided in existing old age housing facilities in Mauritius and whether these facilities meet the needs of the residents. The quantitative method has been used to answer RQ₃. The null (H_0) and alternate (H_A) hypotheses are as follows:

H_{03} - There is no effect of facilities provided on old age homes facilities in Mauritius.

H_{A3} – Good facilities are provided in old age homes for old people to lead a happier life.

To test H_03 , Happier life is used as the dependent variable and the independent variables are the facilities and services provided on a daily basis to attend to all their needs, namely daily assistance, quality of nutrition and dining room service

This section summarizes the findings from 293 respondents. Descriptive statistics of this sample population with regards to their happiness, homesickness, frequency of home visits and personal assistance, termed as the Status of Residents as depicted in Table 4.19.

Table 4.19

Status of Residents

	Frequency	Percent
	Length	
1-5 years	254	86.7
6-10 years	33	11.3
11-15 years	6	2.0
	Happy	
Happy	216	73.7
Sad	77	26.3
	Don't Feel Home sickness	
Not Home Sick	160	54.6
Home Sick	133	45.4
	Home visit	
Yes	159	54.3
No	134	45.7
	Frequency visit	
Every week	57	19.5
At least once a month	21	7.2
Every quarter	40	13.7
Twice a year	27	9.2
Once a year	14	4.8
Never	134	45.7
	Need Assistance	
Yes	148	50.5
No	145	49.5

Note: N=293

Source: Researcher's Survey: 2023

Note. This table did not fit on the bottom of the previous page. Therefore, the entire table was moved to the next page, as required by APA Referencing Guide.

Table 4.19 shows that a majority of 86.7% (n=254) of the respondents have been staying in the old age home since the past 5 years while 11.3% (n=33) are residing in such an institution between 6 to 10 years. Only 6 (2%) of them stay at an old age home between 11 to 15 years. 73.7% say that they are happy with their life at the old age home against 26.3% who are unhappy. 54.6% (n=160) of the respondents do not feel homesick staying away from home while 45.4% (n=133) say that they miss their family and home. 54.3% go home. 45.7 of the respondents never visit their homes while 45.7% do visit their families. 19.5% visit every week, 7.2% visit at least once a month, 13.7% visit every 3 months, 9.2% visit twice a year, and 4.8% have one visit yearly.

Data collected with regards to the daily assistance and special facilities required by residents are presented in table 4.20.

Table 4.20

H₀₃ – Daily Assistance and Special Facilities of Respondents

	Frequency	Percent
Do you need assistance daily		
Yes	148	50.5
No	145	49.5
Do you need any special facilities		
Yes	156	53.2
No	137	46.8
Type of facility required		
Stick	104	35.5
Wheelchair	52	17.7
Other	Nil	-
None	137	46.8
Availability of Facility in Old Age Home		
Yes	81	27.6
No	212	72.4

Note: $N = 293$

Source: Researcher's Survey: 2023

Note. This table did not fit on the bottom of the previous page. Therefore, the entire table was moved to the next page, as required by APA Referencing Guide.

Table 4.20 shows data collected with regards to daily assistance and special facilities required by the respondents. 148 residents, representing 50.5% of the respondents, claim that they require assistance to perform their daily activities. 53.2% (n=156) require 2 types of special facilities as follows: 104 need a walking stick and 52 need wheelchairs. 46.8% of the sample population do not need any special facilities. In 72.4% of cases, walking sticks and wheelchairs are not provided at the old age homes and residents should provide for themselves. The variables to test H_{03} and the related factors for each variable are shown in table 4.21.

Table 4.21

H₀₃ – Descriptive Statistics of Variables

Variable	Factors
Dependent Variable	
Happier Life	Happy being at the old age home Do not feel home sick
Independent Variables	
Daily Assistance	Eating/drinking Bathing Dressing up Moving around
Quality of Nutrition	Tasty food Variety in the menu Healthy food Food served according to dietary restrictions Well balanced food
Dining Room Service	Good service Punctuality of food service Comfortable chairs and tables Cleanliness and well maintained Adequate seating capacity for all residents Politeness of servers Pleasant environment

Source: Researcher's Survey: 2023

The variables used to test the H₀₃ are reliable as there is internal consistency in the items used for each variable as shown by the value of Cronbach Alpha for each variable in Table 4.22 and the internal consistency rated (D. George & Mallery, 2010).

Table 4.22

H₀₃ - Reliability Analysis

	Variable Name	No. Items	Alpha	Internal Consistency	No. Items
Dependent Variable	Happier Life	2	0.728	Good	2
Independent Variable	Daily Assistance	4	0.865	Excellent	4
Independent Variable	Quality of Nutrition	5	0.738	Good	5
Independent Variable	Dining Room Service	7	0.822	Excellent	7

Note: Alpha = Reliability Test

Source: Researcher's Survey: 2023

The descriptive statistics of the study including mean (M), standard deviation (SD), Skewness and Kurtosis are shown in table 4.23.

Table 4.23

H₀₃ - Descriptive Statistics of Variables

Variables	Mean	Std. Deviation	Skewness	Kurtosis
Happier Life	1.3584	0.4174	0.573	-1.328
Daily Assistance	1.66	0.391	-0.632	-1.185
Quality of Nutrition	1.2532	0.3199	1.322	0.871
Dining Room Service	1.13	0.239	1.814	2.510

Source: Researcher's Survey: 2023

As shown in Table 4.23, the values for happier life (M = 1.3584, SD = 0.4174), Skewness = -0.573, Kurtosis = -1.328), for daily assistance (M = 1.66, SD = 0.391,

Skewness = -0.632, Kurtosis = -1.185), for quality of nutrition ($M = 1.2532$, $SD = 0.3199$, Skewness = 1.322, Kurtosis = 0.871) and dining room service ($M = 1.13$, $SD = 0.239$, Skewness = 1.814, Kurtosis = 2.510).

The Pearson's correlation analysis was performed to measure the direction and strength between different variables as shown in Table 4.24.

Table 4.24

H₀₃ – Correlations

	1	2	3	4
Happier Life	1			
Daily Assistance	0.078	1		
Quality of Nutrition	0.213**	-0.006	1	
Dining Room Service	-0.005	.190**	.614**	1

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

Source: Researcher's Survey: 2023

Table 4.24 shows daily assistance has a weak and positive correlation with happier life support ($r = 0.078$, $p < 0.01$), which means that the more there is daily assistance, happier life will increase (Frost, 2022). Quality of nutrition and happier life are weak and positively correlated ($r = 0.213$, $p < 0.01$), which means that an increase in quality of nutrition will lead to an increase in happier life. Dining room service and happier life are

weak and negatively correlated ($r = -0.005$, $p < 0.01$), which means that an increase in the quality dining room service will not lead to an increase in happier life.

Table 4.25

H₀₃- Regression Analysis

Independent Variable	R²	F	Beta	t-test	Sig/p
	0.091	9.615			
Daily Assistance			0.138	2.227	0.027
Quality of Nutrition			0.486	5.177	0.000
Dining Room Service			-0.451	-3.527	0.000

a. Dependent Variable: Happier Life

b. Predictors: (Constant), Dining Room Service, Daily Assistance, Quality of Nutrition

Source: Researcher's Survey: 2023

As shown in table 4.25, the dependent variable (happier life) was regressed on predicting variables of daily assistance, quality of nutrition and quality of dining room service. R – Square: The coefficient of determination measures if the model is a good fit (Frost, 2022). The results of data analysis for H₀₃ show that 9.1% variation ($R^2 = 0.091$, $F = 9.615$, $p < 0.01$) in get support. P values for quality of nutrition and dining room service are within range and normal while the p value of daily assistance is greater than 0.01.

Additionally, coefficients were further assessed to evaluate the impact of each independent variable on happier life. The coefficients for daily assistance ($\beta = 0.138$, $p = 0.027$) indicates that with one unit change in daily assistance 0.079 positive units will change in happier life. The significant value of the coefficient was 0.027, which is greater

than the level of significance of 1% (0.01). The results ($t = 2.227$, $p = 0.027$) support the hypothesis that daily assistance does not have an impact on happier life and the hypothesis is accepted.

The coefficients quality of nutrition ($\beta = 0.486$, $p = 0.000$) indicates that with one unit change in quality of nutrition 0.486 units will change in happier life. The significant value of the coefficient was 0.000, which is within the level of significance of 1% (0.01). The results ($t = 5.177$, $p = 0.000$) do not support the hypothesis that quality of nutrition does not have an impact on happier life. The hypothesis is rejected.

The coefficients for dining room service ($\beta = -0.451$, $p = 0.000$) indicates that with one unit change in dining room service 0.451 negative units will change in happier life. The significant value of the coefficient is 0.000, which is less than the level of significance of 1% (0.01). The results ($t = -3.527$, $p = 0.000$) do not support the hypothesis that dining room service does not have an impact on a happier life. The hypothesis is rejected.

Analysis and Evaluation of Findings for Research Question 4 (RQ₄)

We are all conscious of the challenges that the elderly experience as they age. Older people prefer to stay in their own homes, but as they age, they frequently encounter health issues and run across problems, frustrations, and difficulties during their everyday lives (Fausset et al., 2011). A person's mobility and dexterity gradually decline, making it more difficult to execute daily tasks. In such cases, we can say that community living for senior

adults is a solution and helps to raise their standard of living. In old age homes, the quality of life is prioritized over group activities and exuberant festivities to make those lives happier than before. Most importantly, elderly residents receive nurse care and attention in a clinical setting at a traditional old age home. It is a challenge not only for elderly people but also for employees holding different positions in old age homes.

To address the challenges faced by both residents and employees in old age homes, the following question has been put forward:

RQ₄ - What are the challenges faced by residents and employees of old age homes?

The hypothesis to be tested is

H₀₄ - The quality of life of residents cannot be improved by the quality of service in old age homes.

H_{A4} – The quality of life of residents is improved by the quality of service in old age homes.

The survey was conducted in 20 old age homes and data collected from employees to address RQ₄ and table 4.26 shows the demographics of employees who responded.

Table 4.26

Demographics of Employees

	Frequency	Percent
Gender		
Male	9	10
Female	85	90
Age		
20 - 29 years	41	44
30 - 39 years	13	14
40 - 49 years	26	28
50 – 59 years	10	10
60 - 69 years	4	4
Marital Status		
Single	36	38
Married	47	50
Divorced	6	7
Widow	4	4
Prefer not to answer	1	1

Note: $N = 94$

Source: Researcher's Survey: 2023

Note. This table did not fit on the bottom of the previous page. Therefore, the entire table was moved to the next page, as required by APA Referencing Guide.

Data presented in table 4.26 shows a majority of female respondents (n=85, 90%) and only 9 males (10%). Employees assisting the elderly people are from different age group. 44% are from the age of 20 – 29 years old. 14% from 30 – 39 years old (n=13), 28% from 40-49 years (n=26) and 10% from 50-59 years old. There are 4 employees (4%) who are in the 60-69 years' age group. 38% are single, 50% married, 7% divorced and 4% widowed. One employee did not respond about his/her marital status.

According to Boves (2021), an assisted living facility offer so many benefits that senior citizens should not be reluctant to live there. These facilities have committed staff such as licensed physicians, nurses, and caregivers who are on call on a 24/7 basis to handle the residents with love, care, and compassion and provide fast medical care in case of emergency. Proper nourishment for elderly persons who live alone might be difficult. Seniors who live in assisted living facilities don't have to worry about food preparation and get the right nourishment to preserve their health (Boves, 2021).

As gathered from the employees, it is understood that elderly people in general dislike old age homes for a number of reasons. The most significant one is the belief that, at an old age home, there would be no one like their children who would comprehend them and attend to their particular demands. They worry about being abandoned and at the mercy of the home's management, which may or may not consider their particular needs. Each senior encounters a different set of challenges as they age. While some elderly residents experience geriatric issues, others experience anxiety due to the need to adapt to a new setting and their diverse fellow residents. Respondents say that the biggest challenge about working with old people is to assist them in navigating these difficulties while providing care and attention. Medical, nursing and caring staff should aid on a 24/7 basis and work on a shift system. Table 4.27 shows the working arrangement in place in the sample population of old age homes in Mauritius to ensure proper medical assistance is provided to residents 24/7.

Table 4.27

Working Arrangement in Old Age Homes

	Frequency	Percent
Number of Working Shifts		
2 shifts	80	85.1
3 shifts	14	14.9
Employees Working on a Shift System		
Yes	76	80.9
No (Day time only)	18	19.1
Ratio of Nursing/Personal Care to Residents		
1 :2 (severe case - special attention required)	5	5.4
1 :3	7	7.4
1 :4	33	35.1
1 :5	49	52.1
Direct Involvement with Residents		
Yes	84	89.4
No	10	10.6
In-House Medical Practitioner		
Yes	78	83
No (Other arrangements)	16	17

*Note: N=94**Source: Researcher's Survey: 2023*

Table 4.27 shows that a majority of the respondents (n=80, 85.1%) say that old age homes operate on a two shifts system and the remaining 14 (14.9%) say that they are working on a three-shifts system. 80.9% of respondents work on shift against 19.1% are not working on shift as they workday time only. To ensure that assistance is provided to all residents as and when required, old age homes employ sufficient nursing and caring staff. It is a common practice for the majority of the old age homes to employ 1 staff for every 5 residents (ratio 1:5) as reported by 52.1% (n=49) of respondents. 33 (35.1%)

respondents reported a ratio of 1:4, 7 respondents (7.4%) reported 1:3 and the remaining 5 respondents (5.4%) reported a ratio of 1:2 for severe cases where patients require more attention. 84% said that they were directly involved with residents while 10.6% were not directly involved as they work in administration or the kitchen. 89.4% (n=78) reported that the old age homes had in-house medical practitioner to attend to emergency cases. The remaining 16 respondents (17%) mentioned that although the old age homes did not have in-house medical practitioner to attend emergency cases, they had other arrangements in place such as: doctors and nurses on call, call «Doctor a Domicile », appointed or private doctors, call the emergency service in public or private hospital, or give first aid treatment

Even if it is challenging, moving into an old age home makes everything simpler because caring staff members make sure everything is monitored and handled, from managing prescriptions to looking for signs of deteriorating pain and weakness (Boves, 2021). This kind of assistance works better with a 24-hour medical support service in view of the common cases of deteriorating health, the worsening of a chronic illness, or a protracted recuperation from any surgery or injury. Table 4.28 shows the response of employees about the availability of the in-house Medical Practitioner on a 24/7 basis.

Table 4.28

Service of Medical Practitioner 24/7

	Frequency	Percent
Medical Practitioner 24/7		
Yes	62	79.5
No (MP available Daytime only)	16	20.5

Note: N=78 (From Table 4.30 - availability of In-house Medical Practitioner 24/7)

Source: Researcher's Survey: 2023

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Table 4.28 shows data collected from the response of 78 participants regarding presence of in-house Medical Practitioner on a 24/7 basis. 62 respondents (79.5%) reported that such a service was available on a 24/7 basis. 20.5% of respondents said that in-house Medical Practitioner was available only during daytime and in case of emergency after working hours, the same arrangements as old age homes without in-house Medical Practitioner are available.

It is crucial to consider the socioeconomic status and physical health of those in need of community services. Very often, people who are in bad health and are unable to care for themselves frequently require home care services. The level of assistance needed by residents depends very much on their health status. Table 4.29 shows the number of residents who have health problems, are taking medication and the frequency of medication intake.

Table 4.29

Health Status and Medication Intake of Residents

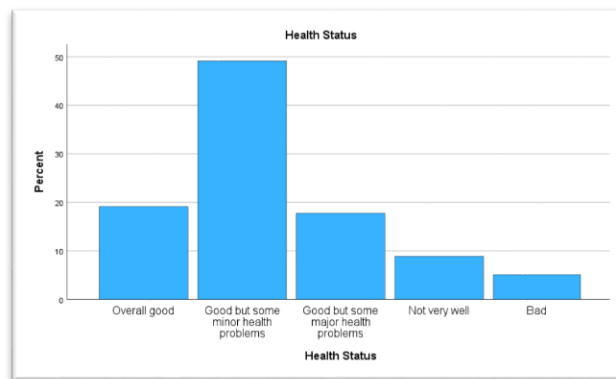
	Frequency	Percent
Health Status		
Overall good	56	19.1
Good but some minor health problems	144	49.1
Good but some major health problems	52	17.7
Not so well	26	8.9
Bad	15	5.1
Taking Medication		
Yes	230	78.5
No	63	21.5
Frequency of Medication Intake		
Once weekly	38	13.0
Once daily	58	19.8
Twice daily	145	49.5
More than twice daily	5	1.7
Not required	47	16.0

Note: N=293 (Residents of Old Age Homes)

Source: Researcher's Survey: 2023

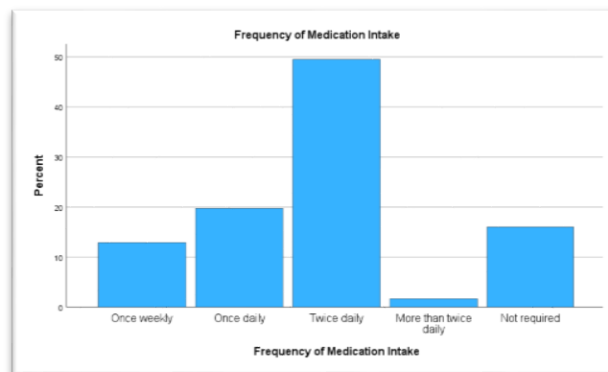
From table 4.29, we can see that only 19.1% (n=56) of residents enjoying an overall good health and majority of residents (49%, n=144) are having good health with minor problems. 17.7% have good health but some major health problems, 8.9% are not so well and 5.1% have bad health. 78.5% of the residents are taking medication and 21.5% do not take medication. The majority of people, 49.5%, need medication twice a day. 13% are taking medication once weekly, 19.8% once daily, just 1.7% need medication more than twice daily and 16% are not taking medication at all. These data are represented in figures 4.5 and 4.6.

Figure 4.5

Health Status of Residents

Source: Researcher's Survey: 2023

Figure 4.6

Frequency of Medication Intake

Source: Researcher's Survey: 2023

As one gets older, a variety of health issues arise, leading to other emotional problems which frequently encountered such as independence loss, mental deterioration, social exclusion and adaptation and uncertainty (Health, 2021). The burden of non-communicable diseases, the complicated medical requirements of the ageing population,

and the need for care with a larger emphasis on patient-centeredness are just a few of the issues that would be on the rise with regard to its elderly population (ICOPE, 2022). Respondents have confirmed that elderly people do experience the above-listed emotional challenges. Elderly people can overcome these obstacles and enjoy their life at an old age home when assisted correctly by caregivers and medical experts.

Bechervaise (2015) says that although it is not a typical and easy job to work with older adults, it can be a really unique and satisfying experience that is not present in other occupations, that are encountered by caregivers and nursing staff. However, despite the satisfaction and rewarding experience they derive, employees' respondents reported that it is a very challenging job which involves medical and emotional care for the residents.

As an emotional challenge, respondents have used the following words to describe the state of mind they require when they come to work with elderly people, irrespective of their own problems and personal issues: abundance of patience, self-control, unconditional love, the willingness to give, good communication, keep calm and being attentive to them.

These emotional controls are very important to deliver personal care and treatment to residents to keep them happy so that they don't miss their families. Having to handle people of different backgrounds and deal with their families can be quite challenging at times. Employees should avoid getting attached to residents, which is quite difficult. On the one hand, the elderly people are away from their families and they develop set of

feelings and attachment with their caregivers. On the other hand, the employees taking care of them on a daily basis tend to develop some emotions as well. This should be avoided. The last and most difficult emotional challenge reported by the respondents is to deal with the deaths of residents. Especially when handling residents with non-curable diseases and knowing that death is imminent, the employees tend to provide more comfort to the residents and are really affected by their deaths.

From a medical point of view, respondents have reported that they encounter several challenges. As people grow older, they become frail. This frailty is a challenge in itself for the elderly and is intensified when other illnesses are prevalent. It becomes more difficult to take care of them and manage a wide range of health conditions, several prescriptions, as well as concerns with their mobility, disabilities and sometimes sensory impairments. By respecting the many requirements, interests, preferences, personalities, and lifestyles of their elderly clients, nurses can work with frail residents in a way that fosters a feeling of individuality.

Sometimes it can be difficult to remember what elements of care each resident need and to address this challenge, there should be a coordination of care to minimize the resident's life's disruption. The level of care services that older persons need can vary depending on the situation, such as when they are dealing with an acute health crisis, a chronic condition that is getting worse, a change in caregiving arrangements, or a steady decline brought on by getting older. In these situations, nursing staff frequently serve as

care coordinators, which are crucial positions on the healthcare team. Furthermore, many residents suffer from mental health issues, dementia, Alzheimer and communication with them is very challenging. Respondents reported that the primary challenge is to have much patience when talking to them and to encourage them to take a bath, use the restroom, and eat. They have to handle residents who have had stroke or CVA attacks (cerebral vascular accidents) and attend to emergency situations. The nursing staff have to follow up on the state of health of residents and give proper feedback to doctors.

Lutheran (2023) says that people who are socially active and interested feel a sense of belonging, which has further positive effects on their health. It's crucial for older folks to maintain social connections since they sometimes risk feeling isolated and lonely. So, keeping residents in old age homes active is another challenge that employees should continuously deal with. According to Boves (2021), due to antiquated perceptions about seniors, many older persons are scared of loneliness when in old age homes. Given the close connection between mental and physical health, social activities can help elderly people to maintain their identity and sense of purpose by keeping them engaged and participate in social activities. Leech (2020) says that the ability to communicate, remember, and share experiences with others through group activities in old age homes is a great method for individuals with dementia to socialize with one another and has a significant positive effect on their mental wellness. Some common activities that are organised for elderly people namely singing, gardening, walking, tea dance, art session, group baking, meditation and games such as bingo.

Respondents have confirmed that being engaged in group activities helps residents to interact and communicate thus eliminating the feeling of loneliness. Both indoor and outdoor activities are organised to entertain residents and data gathered with regards to the organisation of activities are shown in table 4.30.

Table 4.30

Organisation of Activities

	Frequency	Percent
Indoor Activities		
Yes	74	78.7
No	20	21.3
Outdoor Activities		
Yes	67	71.2
No	27	28.8

Note: N=94

Source: Researcher's Survey: 2023

Table 4.30 shows a majority of 74 respondents (78.7%) who say that indoor activities are organised for the residents against 21.3% (n=20) for no organisation of indoor activities. As far as outdoor activities are concerned, 71.2% (n=67) replied positively and 28.8% (n=27) say that no outdoor activities are being organised for the residents.

Table 4.31

Weekly Frequency of Organisation of Activities

	Frequency	Frequency
	Indoor	Outdoor
One time	2	16
Two times	9	6
Three times	7	4
Four times	22	0
Everyday	36	2

Source: Researcher's Survey: 2023

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Table 4.31 shows the weekly frequency of organisation of indoor and outdoor activities. The majority of indoor activities are organised on a daily basis followed by four times a week. With regards to outdoor activities, the majority are organised once a week followed by twice and thrice a week.

Table 4.32

Activities Organised

Indoor Activities		Outdoor Activities
Ludo	Exercise	Picnic
Quiz	Manicure	Tai chi
Yoga	Swimming	Walking
Zumba	Volleyball	Shopping
Movies	Fort Boyard	Slow gym
Singing	Board games	Gardening
Carrom	Dancing/party	Coffee shop
Domino	Theme parties	General Outing
Scrabble	Music/karaoke	Attending Mass
Self-care	Painting/drawing	Physical exercise

Note: Data collected from 94 respondents – employees of old age homes in Mauritius

Source: Researcher's Survey: 2023

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From the data collected, we can see in table 4.32 that a plethora of activities are organised to keep the elderly engaged and overcome the barriers to well-being. The residents are encouraged to participate in activities as it provides them with the opportunity to meet and interact with other people. Socializing can aid in the development of social skills and behaviors to combat their challenges, as well as the reduction of feelings of loneliness.

Analysis and Evaluation of Findings for Research Question 5 (RQ₅)

According to the World Health Organization (WHO, 2022), people are living longer across the planet. Today, most people may anticipate living into their 60s and beyond. In every country in the world, the proportion of older persons in the population is rising. Nowadays, people are living longer and in better health as a result of advancements in healthcare over the previous century. But, as people age, more senior health issues arise, and this has caused the population of those suffering from non-communicable diseases like dementia to grow.

There are quite a few common diseases suffered by senior citizens nowadays and old age homes should be prepared both in terms of equipment and human resources to take care of the residents suffering from geriatric syndromes.

The fifth research question of this study addresses the common diseases suffered by elderly in Mauritius and the facilities that are provided in old age homes to assist them.

RQ₅ - What other facilities should be provided in old age houses to cater for residents suffering from common diseases among seniors in Mauritius?

H₀₅ – Old people suffering from certain diseases do not get special facilities in old age homes.

H_{A5} - Old people suffering from certain diseases get special facilities in old age homes.

Age-related illnesses that are common in older people include chronic obstructive pulmonary disease, diabetes, depression, dementia, hearing loss, cataracts, refractive errors, back and neck discomfort, and osteoarthritis. People are more prone to have multiple ailments as they get older (WHO, 2022). The rise of various complex health conditions known as geriatric syndromes is another feature of older age. They include weakness, urine incontinence, stumbles, delirium, and pressure ulcers, and they are frequently the result of other underlying conditions.

According to the World Health Organization (WHO, 2018a), the World Health Statistics has reported that the estimates non-communicable diseases (NCDs) and injuries in Mauritius account for 84% and 7% of the total illness burden, respectively. The main cause of death is cardiovascular diseases (CVDs) (33.2%) followed by Diabetes (mostly type 2) which accounts for 23.5%, and cancer 12.8%. Furthermore, severe mental or substance addiction disorders affect 284 out of every 1,000 Mauritian citizens, and severe psychiatric illnesses are highly prevalent, with 7.9 and 2.6 out of 1,000 people suffering from severe depressive disorders and schizophrenia, respectively (ICOPE, 2022). People could still be reluctant to seek treatment and support even after decades of tremendous advancements in the field of mental healthcare.

The survey has gathered data from employees of the sample population of 22 old age homes with regards to the most common diseases suffered by their residents and whether these homes are adequately equipped to handle them. Table 4.33 summarises the

findings about common non communicable diseases and the appropriate treatment to control the effect of the diseases (Daily Caring, 2023)

Table 4.33

Most Common Non-Communicable Diseases in Sample Population

Disease	Description of Disease	Treatment
Alzheimer/ Dementia	Impairment of daily functioning by causing memory loss and challenges with thinking and problem-solving.	Dementia risk can be decreased by: <ul style="list-style-type: none"> • Regular exercise of the brain and mind • Being active in life and relationships with others • Adequate good quality sleep • Balanced diet
Coronary Heart Disease	Caused by plaque accumulation in the arteries leading to the heart. The blood flow to the heart is reduced and increases the risk of further problems including blood clots, angina, or heart attacks.	Risk may be reduced by: <ul style="list-style-type: none"> • Reducing salt, sugar, and saturated and trans fats • 7-8 hours' sleep at night • Reduce stress • Regular exercise • No smoking
Hypertension (High Blood Pressure)	A dangerous ailment known as a "silent killer" due to the lack of any symptoms. It harms blood vessels and raises the chance of serious illnesses including heart attack and stroke.	Can be avoided or decreased by: <ul style="list-style-type: none"> • Healthy weight • Stress reduction • Control on salt and alcohol • Regular exercise • Regularly check your blood pressure to track improvement or find pre-hypertension.
High Cholesterol	Too many unhealthy fats in the body causing clogs in arteries leading to heart problems	Manage or prevent high cholesterol by: <ul style="list-style-type: none"> • giving up smoking • lowering the alcohol consumption • Regular exercise • Healthy weight

Diabetes	Caused by excessive amount of glucose in the blood and when the body doesn't produce enough insulin May cause major harm to kidneys, heart, gums, teeth, nerves, and blood vessels and lead to heart disease, stroke, blindness, renal illness, nerve issues, gum infections, and amputation.	Manage or prevent diabetes by: <ul style="list-style-type: none"> • Eating a balanced diet • Discuss alcohol use with a doctor • Regular exercise to manage weight and blood sugar levels.
Osteoarthritis (OA)	A condition that affects the joints and causes the cartilage to deteriorate over time. It results in swelling and inflammation, which can bring discomfort and stiffness.	Delay arthritis or manage symptoms by <ul style="list-style-type: none"> • Regular improvements and reduces pain • Healthy weight • Avoid joint injuries • No smoking
Stroke or CVA (Cerebrovascular accident)	When a blood vessel ruptures or becomes blocked, it prevents blood flow to a particular area of the brain.	Recover from stroke by conducting rehabilitation therapies such as speech, physical, and occupational

Source: Adapted from Definition and treatment of diseases by Daily Caring, 2023

There are many more diseases that elderly people in Mauritius are suffering from such as chronic kidney disease, respiratory disease, and cancer. But this study will consider only the non-communicable diseases that have been reported by the respondents as listed in Table 4.33.

The facilities and personalised care that are being provided to residents as reported by respondents are listed below:

Personal Care Plan according to needs of resident – personal caregivers are allocated for personal hygiene, feeding and special treatment.

Dietary Care requirements.

Physical activities.

Special care for bedridden patients – hourly change of position to prevent bed sores, bed bath, feeding, changing nappies.

Handicapped person – to control their movements due to muscular disorder, assist residents in wheelchair to go to bed and to toilet.

Special care when feeding CVA patients to prevent choking.

Medical beds and rebound mattress.

Special facilities being made available to old people suffering from certain diseases should include the human element as well. The treatment for each of the diseases listed in Table 4.36 is possible if the personnel are adequately properly trained. So, in order to fully address RQ₅ and test H₀₅, the next research question RQ₆ – “What special training are required by caring staff to improve the quality of care given to old people suffering from chronic diseases?” should be addressed in conjunction with RQ₅. Personnel should be well trained to aid and perform therapies as required.

Analysis and Evaluation of Findings for Research Question 6 (RQ₆)

Despite the fact that aged care facilities are not considered medical facilities, the majority of the residents there require specialized medical attention, and it is crucial to

comprehend the medical requirements of senior patients (P. D. Wilson, 2023). Every healthcare professional has a responsibility to see that the patient is treated and cared for as quickly as possible. Employees of facilities for the elderly must have a basic understanding of how to handle crises like heart attacks. In general, every employee of a facility for aged care should be able to offer first aid and painkillers.

The research question to address the issue of training is as follows:

RQ₆ - What special training is required by caring staff to improve the quality of care given to old people suffering from chronic diseases?

H₀₆ – Staff do not need specialized training to be updated with new therapies to assist elderly people.

H_{A6} - Staff need specialized training to be updated with new therapies to assist elderly people.

In geriatric healthcare facilities, addressing patients' needs may be difficult due to a lack of specific abilities. According to P. D. Wilson (2023), in some situations, patients must endure significant suffering for hours before receiving essential assistance. Therefore, all facilities that provide care for the elderly must ensure that every employee has a fundamental understanding of how to handle a variety of medical situations and crises. Table 4.34 shows the position of employees in old age homes and the level of education they have attained.

Table 4.34

Position of Employees and Level of Education

	Frequency	Percent
Position Held		
Administration	14	14.9
Nursing Staff	18	19.1
Personal Care Attendants (Caregivers)	37	39.4
Senior Caregiver	11	11.7
Other (Housekeeper, Kitchen, Cook)	14	14.9
Level of Education Attained		
Primary School	14	14.9
Secondary School	62	66.0
Bachelor's Degree	16	17.0
Master's Degree	2	2.1

Source: Researcher's Survey: 2023

Table 4.34 shows that 14% of respondents held a position in administration, 19.1% were nursing staff, a majority of 39.4% were caregivers, 11.7% were senior caregivers and 14.9% and the remaining 14.9% were in housekeeping/kitchen.

Additional health/medical related training followed by respondents are shown in table 4.35.

Table 4.35

Healthcare and Related Training

Healthcare/Nursing Training		
	Frequency	Percent
First Aid	38	40.4
Basic Health Care courses	6	6.4
Nursing	14	14.9
National Certificate level 3 in Care of Elderly & Disabled	3	3.2
Health Care Assistant – level 4	8	8.5
Diploma in Health Care Assistant	7	7.5
On-the-Job Training	18	19.1

Source: Researcher's Survey: 2023

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Table 4.35 shows that 40.4% (n = 38) of the respondents have followed the First Aid course, 6.4% (n=6) for Basic Health Care courses, 14.9% (n=14) for Nursing, 3.2% (n=3) for National Certificate level 3 in Care of Elderly & Disabled, 8.5% (n=8), for Health Care Assistant, 7% for Diploma in Health Care Assistant and the remaining 19.1% (n=18) had only on-the-job training. Some administrators of the old age homes acknowledged the range of clients that the old age homes receive, and the knowledge required by personnel to provide care to residents. It has been reported by respondents that there is a scarcity of in-house education programs. Following after-hours training is challenging and not always possible due to the shift system of work, family obligations, and the cost involved in following training.

Quality caregiver and education skills are required to identify an awareness of resident function levels, as well as resident health mapping and assessment methods for client care needs (Kozier et al., 2000). Education is constant and is the foundation of home care practice. To increase the performance of nursing care professionals, training can be offered in a variety of ways. By most measures, heart disease affects most people over 65.

Nursing and caring staff of old age homes should focus on illness care, issue prevention, and promoting optimal wellness or well-being for the elderly (Kozier et al., 2000). Caregivers must recognize the value of spending time with residents personally.

Comparison – Residents' Satisfaction and Employees Comments

Results from the examination of the gathered data from residents and employees of old age homes in Mauritius have revealed the following: (i) residents have expressed satisfaction for essential facilities they receive and they live in a supportive and helpful community environment. However, there is still a requirement for emotional and mental health care which do not guarantee senior citizens a great quality of life, therefore highlighting the necessity of comprehensive care approaches; (ii) one of the difficulties employees, especially caregivers, face, is an insufficiency of training on geriatric-specific needs, especially handling illnesses like dementia and impaired mobility. They also draw attention to the necessity of more funding and improved infrastructure to deliver comprehensive care. These two points are complimentary to each other. That is, if proper training is provided to employees on geriatric specific needs, it may solve the

dissatisfaction with regards to emotional and mental health care. To bridge these gaps, a strategic plan to provide specialized training programs should be introduced with the goal of enhancing infrastructure and training for caregivers.

Summary

This study has six research questions, and a mixed methodology was employed for data collection and analysis. This chapter has presented an analysis and evaluation of qualitative and quantitative data collected from residents and employees of old age homes in Mauritius. Data used in a research study should be reliable, valid and trustworthy and the concepts of trustworthiness, reliability, and validity have been explained.

In qualitative research, trustworthiness describes the researcher's dependability, accuracy of the research design, application of the methodology and credibility of findings (Rose & Johnson, 2020). Qualitative research methodology is an epistemic activity in which the researcher assesses the relevance of data collected to comprehend the topic under study and offer justifications for the actions or experiences of certain people or groups. Qualitative research findings may be rendered trustworthy by other researchers by ensuring trustworthiness, auditability, credibility and transferability as well as the participant confirmation of preliminary findings (Daniel, 2019). Prior to conducting the interview, the researcher stated the research's purpose and objectives, as well as the participants' rights. Every piece of information included in the study reflects just the opinions of participants, and thus the findings are credible and reliable.

The situation in which information was gathered is not replicable (Stahl & King, 2020). The qualitative research methodology was adopted to answer three research questions in this study and all data reported are purely opinions of the respondents. Data was collected from employees of old age homes to capture themes and patterns, answer research questions, and identify actions to be taken to improve the situation and offer elderly people a happier stay with more facilities and services. The qualitative methodology was adopted for analysis of data.

On the other hand, quantitative data should be reliable and valid to demonstrate that the research methodologies were rigorous. The reliability of the test relates to how closely it will produce comparable results under different settings, technique, or tool, assuming nothing else has changed (Roberts et al., 2006). As for validity, it is a more elusive concept that considers how well our measures match up with what we set out to measure (Linacre, 2000). There are different means to ensure reliability and validity of quantitative research.

Data for the first research question which relates to the demand for old age homes was gathered by interview of elderly people who have applied to get admitted at an old age home and were on the waiting list. A closed ended questionnaire was used to collect data from these elderly people. Data for the second and third research questions which are about the reasons for which they have decided to move at an old age home and the facilities they get respectively, were collected by using closed ended questionnaire. Quantitative

methodology was adopted for analysis of data and evaluation of findings for the above-mentioned three research questions.

Demographics of participants were presented and the SPSS software was used to analyse quantitative data. Cronbach alpha was calculated to test internal consistency and reliability of data (D. George & Mallery, 2010). The Pearson's correlation coefficient was used to calculate correlation of all variables and were tested to know to what extent a dependent variable change with change in an independent variable and the hypothesis testing (Frost, 2022). The main results of a regression are the P-values and coefficients. These statistics describe the relationships between the independent variables and the dependent variable and determine if the variables are statistically significant. Regression analysis was therefore conducted to explain the connections between independent variables and a dependent variable (Taylor, 2023) and to comprehend how these factors are related to one another.

The results obtained from analysis and evaluation of data will be further discussed individually in the next chapter.

CHAPTER 5 - IMPLICATIONS, RECOMMENDATIONS AND CONCLUSIONS

This chapter's goal is to put the study's conclusions in a broader context. The problem statement, purpose of the study, methodology used, limitations and ethical considerations have been reiterated, followed by a discussion of the implications of the study in relation to existing research. The study then focuses on the most significant findings compared to the existing literature to make recommendations for future research.

Statement of the Problem

The ageing population of Mauritius is causing demographic transitions that will likely increase the demand for aged care services, particularly old age homes. Old age homes are essential in providing housing, healthcare, and other services to elderly people who might need assistance with everyday tasks or for those who don't have family members available to help. Senior citizens get good healthcare assistance in old age homes in Mauritius but the problem is the gap in the quality of healthcare assistance required for residents suffering from certain common diseases among senior Mauritians and the requisite specialized training that nursing and caring staff should undergo when taking care of such residents. Arensberg (2018) pointed out that the population for senior citizen (above 65 years old) has increased and the younger generation population has decreased. The number of older people and their proportion of the population are both growing. According to projections (WHO, 2023), there will be 44% more people 60 and older in 2061 than there would be in 2021 (237,195 vs. 340,541). Furthermore, the average life expectancy at birth has increased significantly throughout time. Male birth expectancy

increased from 59 years in 1962 to 70.3 years in 2020, while female birth expectancy increased from 62 years in 1962 to 77.2 years in 2020 (WHO, 2023). On the one hand, this has led to an increase in the dependency ratio leading to a new challenge being faced by the old age industry and on the other hand, there is a change in the traditional Mauritian family structure.

The joint family structure used to be common in Mauritius whereby non-working women used to look after old age people. But according to statistics gathered by the Ministry of Finance and Economic Development in 2018, the level of literacy among women has increased considerably, especially at tertiary level, leading to more women working. The lifestyles and family structure of Mauritians have gradually changed to nuclear family and after marriage, most people prefer to have their own privacy and opt not to stay with their parents. Furthermore, majority of youngsters who proceed overseas for higher studies do not return to Mauritius. In these situations, the old parents who require assistance are either staying alone or sent to old age homes. There is a limited number of old age homes in Mauritius, and more specifically, with limited facilities to cater to the special needs of these people and this societal trend is directly impacting on the demand for more old age homes in Mauritius. As Dees (1998) says, social entrepreneurship means “doing business for a social cause” and social enterprises in Mauritius should respond to this growing demand to solve this societal problem. The old people should be given a better life and old age homes must be properly equipped to provide medical supervision and

minor medical care and cater for their physical and medical needs as well as social and emotional needs.

Purpose of the Study, Research Aims, and Objectives

The purpose of this mixed method study is to investigate this emerging market of old age homes in Mauritius which is caused by an ageing population and has become a serious national and international social issue. But the questions that are provoked by this social phenomenon are how much old age housing facilities should be provided for the senior citizens. Noting that senior citizens are reluctant to change residence in their old age, what should be done to encourage them to move to these facilities and how to make their stay pleasant by providing for all their needs (Ball & Nanda, 2013). If supply cannot meet the growing demand for old age homes, there can be serious problems with the quality of life of older people and other implications for health care. The aim of the study is to determine the current demand and the types of old age housing facilities to be provided. The study looked into the reasons why senior Mauritians move to such facilities and medical needs required taking into consideration the most common diseases being suffered by the old people. Both the qualitative and quantitative research methods have been used for gathering data. Firstly, a quantitative approach was used to collect information face to face from the residents about the reasons they moved to old age homes, their quality of life, their satisfaction with regards to the services being offered, the difficulties they are encountering and what changes they would like to see to lead a better life. This approach is more structured in the form of surveys and quantifies the problem by way of generating

numerical data into usable statistics. This will help to make a forecast of the future demand for old age homes. Secondly, the qualitative approach was used whereby a questionnaire was used to collect data from employees working in old age homes in Mauritius.

Implications

In chapter 4, quantitative and qualitative methodologies are used to investigate the impact of an ageing population in Mauritius on the demand for old age homes and the whole package of assistance and facilities that are required by this social group. They provide a full grasp of the study problems from several perspectives when taken together. This section examines the study's findings in relation to the theoretical framework and its relationship to literature. It is organized by research question and hypothesis followed by connections to the theoretical framework and literature.

The Impact of Old Age Housing Facilities on Ageing Population

According to Ajayi (2017), an ageing population is a global phenomenon and is unavoidable due to improvements in medical facilities and a global drop in reproduction rates. There will be a demographic change and a considerable influence on public health as the population of people over 60 years old triples by 2050, affecting all countries but primarily developing countries.

The first research questions posed by the researcher is “What is the impact of old age housing facilities on ageing population in Mauritius?” and the null hypothesis H_0 1

being tested is “There is no impact of old age housing facilities on ageing population in Mauritius”.

Literature Connection

The demand for old age housing facilities is perceived by social entrepreneurs as new avenues for doing business while solving a societal problem. According to Saebi, et al. (2019), social entrepreneurship deals with complex social needs which is emerging as an innovative approach through application of business approach to the business of good deed. Furthermore, Robinson (2006) says that social entrepreneurs are those who see a chance to address some of society's unmet needs which the governmental assistance system is unable or unwilling to provide, and who collect the required funds (generally people often volunteer, money, and premises) and utilize these to change things. According to World Population Ageing (2017), the rise in the number of people above 80 years old is forecasted to rise threefold from 137 million to 425 million between 2017 to 2050. The population of Mauritius has been progressively ageing through the last few decades and according to ICOPE (2022), in 2000, there were 9% of persons who were 60 years of age or older. By 2021, this number has increased to 18.7%, and it is forecasted to reach 36.5% by 2061. Furthermore, persons who are 80 years of age or older is anticipated to rise from 26,432 in 2021 to 65,461 in 2061, an increase of more than twofold that will definitely impact on the social and healthcare system of Mauritius (ICOPE, 2022). The burden of non-communicable diseases, the complicated medical requirements of the ageing

population, and the need for care with a larger emphasis on patient-centeredness are just a few of the issues that would be on the rise with regard to its elderly population.

Analysis of Results and Conclusion

Loneliness, the level of daily activities and health status were used as independent variables to test the null hypothesis. From the correlation results we find that there is a positive relationship between the load of daily activities being performed by elderly people and the demand for old age homes while loneliness and health status are negatively related to demand. The dependent variable, namely demand for old age home was regressed on predicting variables of loneliness, daily activities and health status. The results obtained are shown in the table below:

	R^2	Independent Variables		
		Loneliness	Daily Activities	Health Status
	0.293			
Correlation		-0.492	0.067	-0.207
β		-0.295	0.020	0.223
p value		0.007	0.894	0.213
Null Hypothesis		Rejected	Accepted	Rejected

Dependent Variable: Waitlist demand

The following may be summarised for H_01 from the above results:

Regression with Loneliness - with a p value of 0.007 which is less than 0.01, the null hypothesis is rejected in favor of the alternate hypothesis, which means that loneliness does have an impact on demand for old age home.

Regression with daily activities - a p value of 0.894, which is greater than 0.01 supports the null hypothesis that daily activities of elderly people do not have an impact on demand for old age home.

Regression with health status – the p value is greater than 0.01 at 0.213 which supports the null hypothesis. This means that the health status of elderly people does impact on the demand for old age homes.

It may be concluded that the loneliness of elderly people influences the demand for old age and not performance of their daily activities and health status. While it was anticipated that loneliness would affect the demand for senior living facilities in Mauritius, the researcher believed that health status would have a greater impact. Nevertheless, the implications for the demand of old age housing facilities in Mauritius is expected to have a number of consequences. Mauritius has a population that is growing older, and the need for old age homes to meet the needs of older adults is likely to rise as more individuals reach retirement age. This may necessitate the allocation of additional resources to cater for higher occupancy rates, longer waiting lists and construction of more housing facilities.

Factors influencing the Decision to Move in Old Age Homes

Population ageing is primarily concerned with the forces that accompany demographic change and changes in age structures, whereas societal ageing is concerned with the social construction of ageing and the treatment of older people in their social, political, economic, and cultural lives (Kendig et al., 2016).

The second research question (RQ₂) “What are the effect of relative supports on old age homes in Mauritius?” was tested against the null hypothesis (H₀₂) - “There is no effect of relatives support on old age home in Mauritius people”.

Literature Connection

According to the World Health Organization (WHO), "health is a state of complex physical, mental, and social well-being, not merely the absence of disease or infirmity," and the concept of healthy ageing is defined as "the process of optimizing opportunities for health, participation, and security in order to enhance quality of life as people age." When discussing population ageing, it is important to focus on the societal responses for support and opportunities rather than the problems (Kendig et al., 2016).

As stated by Harbishettar et al. (2021), the ageing population and greater life expectancy have resulted in demographic change and increased demand for care. Traditional familial and social support have decreased due to lower fertility rates, increased urbanization, people living in small nuclear families, migration, and a reduction in traditional social networks, but demand for residential care homes for the elderly has increased.

Analysis of Results and Conclusion

Loneliness, assistance and healthcare and socialisation were used as independent variables to test the null hypothesis. From the correlation results we find that loneliness and socialization are positively correlated with get support while assistance and healthcare are negatively correlated. The dependent variable namely get support was regressed on predicting variables of loneliness, assistance & healthcare and socialization and from the results obtained, the following may be summarised for H₀₂:

	R ²	Independent Variables		
		Loneliness	Assistance & Healthcare	Socialization
	0.011			
Correlation		0.072	-0.053	0.010
β		0.079	-0.063	0.008
p value		0.167	0.241	0.881
Null Hypothesis		Accepted	Accepted	Accepted

Dependent Variable: Get Support

Regression with Loneliness - with a p value of 0.167 which is greater than 0.01, the null hypothesis is accepted, which means that lonely elderly people do get support for assistance with their daily activities.

Regression with assistance & healthcare - a p value of 0.241, which is greater than 0.01 supports the null hypothesis is accepted meaning that elderly people do get support for assistance and healthcare.

Regression with socialisation – the p value is greater than 0.01 at 0.881 which supports the null hypothesis. This means that socialisation does have an impact to get support in their daily lives.

From the above results, it may be concluded that the null hypothesis (H_02) is accepted. Elderly people get support from their relatives when they are lonely, in need of assistance and healthcare and socialisation. However, an increasing demand and supply of care facilities in old age homes may cause changes in the cultural attitudes as relatives may become more reluctant to care for senior members personally and prefer instead to rely on health care centers. Furthermore, if elderly people in nursing homes are unable to retain social links with their families and communities, they may experience isolation and loneliness.

Facilities to Meet Needs of Residents in Old Age Homes

According to Šimundža (2015), social entrepreneurs have five characteristics: social vision, social networking, sustainability, innovativeness, and financial returns. Having a social vision allows the social entrepreneur to recognize future needs and prospects to work as an agent for social change to address gaps in social demands that the government and private sector are unable to provide.

The third research question to be answered is “What are effect of the current facilities provided in existing old age housing facilities in Mauritius?” tested against the null hypothesis (H_03) “There is no effect of facilities provided on old age homes facilities in Mauritius”.

Literature Connection

Social entrepreneurs who are concerned about the social need are running old age care facilities to house elderly individuals who are unable to live freely. In elderly care facilities, they cater to basic needs and provide nursing and special care, mental and physical care, and nutrition (Harbishettar et al., 2021). Old age or residential care homes care for elderly persons who are unable to care for themselves or who live alone. When elders have complicated cognitive, physical, or behavioral impairments, they are given care and nursing needs, as well as long-term rehabilitation (Socci et al., 2020).

Analysis of Results and Conclusion

Daily assistance, quality of nutrition and dining room service were used as independent variables to test the null hypothesis. From the correlation results we find that the provision of daily assistance and quality of nutrition are positively correlated to happier life while dining room service is negatively correlated. The dependent variable, namely happier life was regressed on predicting variables of daily assistance, quality of nutrition and dining room service and from the results obtained, the following may be summarised for H₀₃:

	R ²	Independent Variables		
		Daily Assistance	Quality of Nutrition	Dining Room Service
	0.091			
Correlation		0.078	0.213	-0.005
β		0.138	0.486	-0.451
p value		0.027	0.000	0.000
Null Hypothesis		Accepted	Rejected	Rejected

Dependent Variable: Happier Life

Regression with daily assistance - with a p value of 0.027 which is greater than 0.01, the null hypothesis is accepted. Daily assistance provided to elderly does not lead to happier life.

Regression with quality of nutrition - a p value of 0.000, which is less than 0.01 rejects the null hypothesis which means that good quality of nutrition is provided in old age homes for elderly to lead a happier life.

Regression with dining room service – the p value is at 0.000 which is less than 0.01 and rejects the null hypothesis. This means that good dining room service does make elderly people happier.

From the above results, it may be concluded that the null hypothesis (H_03) is rejected as good facilities provided in old age homes do give elderly people a happier life.

Quality of Life of Residents in Old Age Homes

Moving into an old age home is a challenge for elderly people, as according to QUT (2017), when an elderly person "moves in" to a senior housing facility, the facility becomes their home as well as the place where they are taken care of but they worry that they would lose their independence, distinctiveness, and sense of self. It is a challenge for employees as well in view of the numerous problems that they encounter everyday while taking care of old people Bechervaise (2015).

The fourth research question (RQ4) is “What are the challenges faced by residents and employees of old age homes?” and the hypothesis tested is (H₀₄) “The quality of life of residents cannot be improved by the quality of service in old age homes.”

Literature Connection

While most of the definitions of social entrepreneurship are centered around social in literature, it is to be noted that social entrepreneuring also leads to solutions to solve unmet needs of society by using a combination of resources to follow on opportunities to create an organization that provide social benefits (Socci et al., 2020). Social needs are the needs of the senior citizens in a community which are not presently being addressed by any private or public sector organization and whereby some sort of intervention is required to find social solutions to the problems. Social solutions are the ideas identified and initiatives taken to socially create solutions to be implemented in local communities and social change are the changes brought about following implementation of the social solutions (Socci et al., 2020). According to Lutheran (2023), persons who are socially active and interested have a sense of belonging, which has a favorable impact on their health. It is critical for older people to retain social relationships since they can become isolated and lonely. World Health Organization (WHO, 2015) defines healthy ageing as “Health is a state of complex physical, mental and social well-being and not merely the absence of disease or infirmity” and the concept of healthy ageing is conceptualized as “the process of optimizing opportunities for health, participation, and security in order to enhance quality of life as people age”. Studies on human development have confirmed that when talking about old

age, there is no necessary decline in physical or mental performance whereby old age people should stop their social roles (Fernández-Ballesteros, 2010).

Analysis of Results and Conclusion

Elderly people do experience challenges such as independence loss, mental deterioration, social exclusion, adaptation and uncertainty and these obstacles are overcome to enjoy a better life when assisted correctly by caregivers and medical experts. Old age homes provide medical care and assistance on a 24/7 basis with a shift system. An adequate number of nursing and caring staff are being employed to ensure that close assistance is provided to each and every resident as required. A 24-hour medical service is ensured for emergency cases with either the presence of a medical practitioner or through arrangements with some medical institutions. The majority of residents are suffering from some kind of non-communicable diseases requiring the intake of medication daily.

Working with the elderly is a big challenge for employees of old age homes which involves medical and emotional care for the residents. Employees should have an abundance of patience, self-control, unconditional love, the willingness to give, good communication, keep calm, being attentive to them and handle deaths. Keeping residents in old age homes active is another challenge which is tackled by organising different activities. Residents suffering from mental and physical health are made to participate in social activities to maintain their identity and sense of purpose through engagement and participation in social activities. A plethora of indoor and outdoor activities are organised

for the elderly to keep them engaged in group activities for more interaction and communication to reduce their sense of loneliness.

Based on the above findings, the researcher concludes that although it is a huge challenge both for residents and employees of old age homes, the quality of life of residents is improved through the assistance provided on a 24-hour basis and the activities being organised to keep the residents engaged and happy. The null hypothesis is therefore rejected.

Treatment and Special Facilities in Old Age Homes

According to Shavers (2019), people become more susceptible to some ailments as they age. Some diseases cause significant distress in older adults, whether at home or in senior living. Elderly people and caregivers should be aware of these disorders in order to take the necessary precautions to reduce the likelihood of physical problems.

The fifth research question (RQ5) of this study addresses the treatment and special facilities available for residents suffering from common diseases.

RQ₅ - What other facilities should be provided in old age houses to cater for residents suffering from common diseases among seniors in Mauritius?

H₀₅ – Old people suffering from certain diseases do not get special facilities in old age homes.

Literature Connection

According to Wahl et al. (2012), gerontological literature agrees that both personal and environmental resources contribute to healthy ageing. Primary health care plays an important role in supporting the comprehensive requirements of older persons. Old age should be redefined in the social dimension, and solutions for dealing with potential issues that may arise during this stage of life for a variety of causes should be developed (Avers, 2020). The ideal way for providing care and implementing the vast spectrum of treatments required for older adults to get the greatest potential outcomes is integrated care (WHO, 2018a).

Analysis of Results and Conclusion

The golden age comes with a set of obstacles resulting in a variety of ailments and dysfunction and results shows that the most common non communicable diseases suffered by elderly people are Alzheimer/ Dementia, Coronary Heart Disease, Hypertension (High Blood Pressure), High Cholesterol, Diabetes, Osteoarthritis (OA), and Stroke or CVA (Cerebrovascular accident). These diseases cause a high level of frailty, imbalance, and decline in their normal organ functioning that puts their physical and emotional capacity at risk. To deal with these issues, the old age homes have some basic geriatric care program in which the individual's specific challenges are treated by medical and nursing staff and taken care of by caregivers with utmost care and compassion. Treatment and facilities are provided to residents in accordance with their health conditions and needs such as personal care plans, dietary care, physical activities, and feeding of patients as may be required.

Bedridden residents and those requiring special treatments are allocated personal caregivers.

From the results, it is gathered that there are care programs to handle residents with serious diseases but they are mostly palliative care to temporarily mitigate the intensity of the residents' medical condition. More advanced treatment and therapies should be included to maintain and further improve the quality of life of residents who are suffering from a serious, advanced, or life-threatening illness. However, the need for better healthcare services for the elderly would result in increased investment in healthcare infrastructure and services. This would also mean that employees should be instructed in how to give appropriate dementia care to residents and also skills for dealing with difficult behaviors, providing exciting activities, and maintaining a safe and secure atmosphere.

Specialised Training for Staff working in Old Age Homes

According to Austin et al. (2006), financial and human resources will make a predominant difference between social and commercial entrepreneurship, leading to different approaches in the management of human and financial resources. Management of human resource in old age homes goes to ensuring that each healthcare worker has the appropriate and adequate training skills to care for and treat residents.

The sixth and last research question (RQ6) of this study is “What special training are required by caring staff to improve the quality of care given to old people suffering

from chronic diseases?” tested against null hypothesis (H_0) “Staff do not need specialized training to be updated with new therapies to assist elderly people”.

Literature Connection

Avers (2020) states that sufficient infrastructure and skilled workers should be supplied for those responding on long-term care due to their health condition as elderly people deserve more control over their lives and access to all information about care services. As a result of an ageing population, the labor force in general is ageing, with younger workers accounting for a decreasing proportion of overall employment. According to Agyemang (2020), the majority of family caregivers offer care with little or no instruction on how to deal with complex health conditions. Few caregivers, for example, understand the nature of dementia, how it affects behavior, and how they might improve the lives of older people who have it. This lack of understanding might increase the danger of elder abuse, either physically or financially.

Analysis of Results and Conclusion

The majority of the staff working in old age homes young fall in the age group 20-29 years and have completed up to secondary school education followed by first aid training courses. A small percentage have followed some advanced training in nursing, Care of Elderly & Disabled, and for Health Care Assistant. Most of the staff are having on-the-job training. The elderly are suffering from quite serious diseases requiring special training and therapies which are not acquired by nursing and caring staff. The caregivers

offer care but with little knowledge of how to deal with complex health conditions. There is a lack of in-house CPD (continuous professional development) training and employees are reluctant to pursue the courses privately as they have to bear the high costs.

In conclusion, it is found that although nursing and caring staff have some basic training to handle and care for elderly people suffering from chronic diseases in old age home, this is far from being adequate. In addition to basic care awareness, they should have specialized training skills. The null hypothesis is rejected as nursing and caregivers are required to follow specialized training.

However, there are implications for staff training in nursing homes. Staff personnel should obtain gerontology training to better understand the ageing process, typical health conditions, and the physical, emotional, and social needs of older persons. This training can assist staff members in developing a more compassionate and empathic approach to care. Employees should be trained to speak effectively and politely with residents, their relatives, and other members of the staff.

Conclusions

Social entrepreneurship entails identifying societal challenges and applying entrepreneurial concepts to effect social change in order to improve the situation (Sepulveda, 2015). It is a broad term that refers to solutions for problems in societies and economies, failures of existing national social welfare programs, models to bring about

social change and political transformation, and it is used as a platform for new business opportunities and hybrid partnerships (Wu et al., 2020). Social entrepreneurship works as a vehicle to expedite societal transformation, bring about changes, and stimulate market growth. However, a lack of unified paradigm on the subject has resulted in many definitions being proposed by persons from various geographical origins, as well as potential for additional research in the field in various parts of the world (Bacq & Janssen, 2011). The notion of social entrepreneurship is examined using Gartner's four distinguishing factors: individual, organization, process, and environment.

According to Bacq and Janssen (2011), a social entrepreneur is a visionary because of the ability to see opportunities and gather the resources needed to execute the social mission in a creative way. They are skilled at identifying possibilities, capitalizing on them, and providing greater social benefits. They also exhibit a high level of risk tolerance, inventiveness, and proactiveness. Over time, social enterprise organizations and entrepreneurs have grown in economic power, and a range of successful and useful businesses have emerged, resulting in collaboration so as to distinguish such accomplishments from typical entrepreneurship endeavors (Van Slyke & Newman, 2006). With a clear differentiation, stakeholders such as researchers, analysts, and investors are better positioned to value the respective businesses' operational and strategic outcomes in the marketplace.

Social entrepreneurship emerged from commercial entrepreneurship, and the concept's recent popularity necessitates a comparison to determine the parallels and variations in features between commercial and social entrepreneurship. According to Mair and Marti (2006), commercial and social entrepreneurship differ in terms of prioritizing economic profit production above social wealth creation. Opportunities are recognized, analyzed, and exploited for profit motivations in commercial entrepreneurship, and entrepreneurs are likely to spot opportunities involving the demand and supply for innovative and value-added goods and services (Certo & Miller, 2008). Social entrepreneurship, on the other hand, is the process of identifying, evaluating, and exploiting possibilities to produce social value, and social entrepreneurs have a keen awareness and understanding of societal needs that are met by creative organizations (Certo & Miller, 2008).

Austin et al. (2006) proposed four fundamental theoretical propositions to differentiate between social and commercial entrepreneurship, namely, mission, performance measurement, resource mobilization, and market failure. The mission of commercial entrepreneurship seeks to establish new businesses in the form of new items, services, and jobs that are beneficial to society, profitable, and result in private profits. In contrast, social entrepreneurship has a mission to create social value for the benefit of the public, and the distinction between it and commercial entrepreneurship is in the organization's purpose and benefits. Commercial entrepreneurship performance is measured in monetary and tangible terms, to calculate wealth value creation while social

entrepreneurship which has a social purpose, it more complexes and challenging to manage relationships and measure performance due to the difference in perspectives of the social impact, multi-causality, non-quantifiability, and the temporal dimensions (Kanter & Summers, 1987). Employees of commercial enterprises are recruited and encouraged to work for competitive compensation, and the company's interest is invested in new projects after shareholder distribution. Social entrepreneurship, on the other hand, is run by personnel that work both full and part time, as well as volunteers, and they are unable to pay employees competitive wages like commercial entrepreneurship due to the nature and modest scale of their companies. When the commercial market fails to address a social demand, a market failure occurs, and organizations founded for social purposes have the opportunity to develop (Weisbrod, 1977).

Very often, social and commercial enterprises are found to be quite similar, especially when the enterprises are engaged in operational activities such as product development and sales in order to meet social needs and generate income that is used to sustain the organization and attract other resources such as human and financial resources. As a result, commercial entrepreneurs have recognized the importance of incorporating social purpose into their business processes, goods, and services in order to increase the economic worth of their organization (Austin et al., 2006). Some commercial entrepreneur persona qualities, such as proactivity, innovativeness, and risk taking, are shared by social entrepreneurs (Satar & Natasha, 2019; Sulphrey & Salim, 2020). When social entrepreneurs

enter the market, they must have a pro-social attitude in addition to an entrepreneurial orientation, which is more significant.

As the notion grows in popularity and maturity, it is crucial to understand the people involved, which leads us to the personality qualities of social entrepreneurs. According to Bornstein (2004), the social entrepreneur personality is a unique domain that was formerly perceived as heroic (Frese & Gielnik, 2014) since social entrepreneurs would cure a plethora of societal problems and remove hurdles. According to Frese and Gielnik (2014), after years of dispute, it is now acknowledged that the personality attributes of social entrepreneurs do matter for the establishment and success of a social venture. A personality lens is used to attract attention to the differences in people's personalities and to provide insight into why certain people start and continue with social endeavors (Davidsson, 2015). When creating social enterprises, social entrepreneurs are frequently hampered by a number of problems, including a lack of capital, administrative hassles, business registration fees, unfavorable tax regimes, regulatory changes, and legal constraints in the field. Funding is a big issue for social entrepreneurs. According to Hossain (2020), most social entrepreneurs are individuals, and it is difficult for them to raise sufficient finances when they first start their business.

Entrepreneurship is crucial in any economy to create growth and boost societal welfare since it promotes social change and drives innovation (Seth, 2021). Entrepreneurs have the power to transform our living and working situations, and they are regarded as

national assets. Entrepreneurship is important because, when successful, the innovations brought about by the firm improve the level of living, create wealth, jobs, and contribute to the economy.

The goal of social entrepreneurship is to create social ventures whose primary purpose is to be primarily geared towards marginalized groups who can actively engage in it and generate employment for them. According to Mort et al. (2003), social entrepreneurship has a significant impact on the quality-of-life people lead in society, as well as its role in activating social transformations in both the short and long term.

Social businesses should identify and convey the type and size of the difficulties they want to address in order to illustrate the benefits of their goods and services as well as the impact on the target group (World Youth Report, 2020). To persuade shareholders, stakeholders, and partners to continue supporting their initiatives, social entrepreneurs need have the right instruments to quantify the level of social need as well as the impact of corrective measures. It is important to assess the impact of social entrepreneurship in order to ensure that social enterprises continue to operate in an ethical and sustainable manner, and a lack of appropriate measurement methods may have a negative impact on the volume and validity of social entrepreneurial activity. Social impact measurement is critical since it is a performance-based variable in social entrepreneurship (Rawhouser et al., 2017).

Individuals who begin action to establish, develop, and manage firms that solve societal problems and difficulties such as ill-health, old age, social exclusion, and environmental issues with the goal of establishing social values are referred to as social entrepreneurs (Stephan & Drencheva, 2017).

According to the United Nations (Allen, 2017), the global population of persons aged 60 and over was 962 million, more than double the population of 382 million for this category and is expected to reach 2.1 billion by 2050. The number of persons over the age of 80 is expected to more than triple from 137 million to 425 million between 2017 and 2050. With improvements in medical facilities and a global decline in reproduction rate, an ageing population is unavoidable. The average age of the world's population continues to rise, and Mauritius is encountering the same problem. The government should consider new policies to address elderly persons' needs and interests, such as housing and assisted living facilities, health care, social protection, and social benefits.

Population ageing is primarily concerned with the forces that accompany demographic change and changes in age structures, whereas societal ageing is concerned with the social construction of ageing and the treatment of older people in their social, political, economic, and cultural lives (Kendig et al., 2016). As the proportion of elderly persons grows, there is a pressing need to develop solutions to the challenges and opportunities posed by an ageing population, as many governments would struggle to provide high-quality care to them (Adamczyk, 2021). Governments should begin

identifying the difficulties of old age today and prepare the next generation to be caregivers, as it is anticipated that 50% of the senior population will require support.

When discussing population ageing, it is important to focus on the societal reactions and opportunities rather than the issues. According to the World Health Organization (WHO, 2018b), "health is a state of complex physical, mental, and social well-being, not merely the absence of disease or infirmity," and the concept of healthy ageing is defined as "the process of optimizing opportunities for health, participation, and security in order to enhance quality of life as people age."

The population of Mauritius is rapidly ageing and this demographic trend is projected to accelerate in the future years, presenting the government and other players in the aged care industry with both difficulties and opportunities. As a result of its ageing population, Mauritius has seen an increase in demand for old age home facilities, posing both challenges as well as potential for social entrepreneurs. Social entrepreneurs use business logic to solve the problems of a group of people who are unable to change their circumstances on their own and are thus excluded or neglected in society (Saebi et al., 2019). Social entrepreneurship has grown in popularity as a means of addressing a variety of societal issues, particularly ensuring the availability of inexpensive and high-quality homes for seniors in emerging markets.

The purpose of this study is to investigate the emerging market of old age housing facilities in Mauritius through the lens of social entrepreneurship. Following a survey conducted to gather data in a sample population of old age homes in Mauritius, the circumstances and problems of the Mauritius senior citizen sector have been assessed as well as the challenges for social entrepreneurs to provide adequate and appropriate facilities to residents and advanced training to employees.

The conclusion looks at the main factors influencing the growth of social entrepreneurship in the Mauritius old age housing industry, the market demand, the major implications and government legislation.

One of the primary issues confronting the senior care sector in Mauritius is the shortage of old age accommodation for the elderly. Many older individuals are living alone and can have a detrimental influence on their health and well-being. There is a high demand for old age homes due to the high level of housing insecurity, which is a key worry for the government and other stakeholders. The study has shown that although it is tough for senior Mauritians who are used to living independently to change their place of residence to old age homes, in general these residences offer seniors a safer and comfortable living environment which is better than living alone. They live in a communal setting and get the opportunity to socialize with others, through various activities being organised, thus minimizing loneliness and isolation. They get medical professionals on-site or are provided with access to other private or public healthcare services, ensuring that elders receive the

care they require. In general, the consequences of old age living facilities in Mauritius are determined by a number of aspects, including accessibility, price, and care quality. From the findings, we can say that elderly people's loneliness affects their need for old age rather than their ability to carry out daily tasks and maintain good health. Although loneliness was expected to have an impact on Mauritius's demand for senior living facilities, the researcher thought that health condition would have a bigger effect. Furthermore, cultural attitudes may shift as a result of the growing supply and demand for care facilities in assisted living facilities. Family members may be less inclined to provide personal care for elderly family members and instead choose to rely on health care facilities.

However, the senior healthcare sector is facing a lack of specialized care facilities for elderly persons with chronic illnesses and impairments. Many elderly persons are suffering from some diseases which necessitate specific care and attention to be dispensed by trained staff. There is an acute shortage of adequately trained staff in the current healthcare system to provide such specialized care, resulting in significant unmet requirements and poor health outcomes for the elderly at the old age homes. Furthermore, there is a scarcity of old age living facilities in Mauritius, which results in waiting lists. Though the waiting time is currently not so lengthy, this will worsen as the ageing population and changing societal standards are driving up market demand for old age home facilities in Mauritius. The trend of the ageing population and in an emerging country like Mauritius, social entrepreneurship has the potential to address this societal concern of providing inexpensive and high-quality housing for the elderly. Social entrepreneurship

can address the social issue by tapping into the inventiveness and expertise of private-sector actors to generate long-term, sustainable, and scalable solutions for society that the government and other stakeholders sometimes neglect. Residents with severe, advanced, or life-threatening illnesses should have access to more sophisticated therapies and therapy to preserve and enhance their quality of life and to achieve this, there should be more investment in healthcare services and infrastructure for an improved healthcare for the elderly. This would also imply that staff members should receive training and CPD on how to provide residents with dementia care that is suitable as well as skills for handling challenging behaviors, organizing engaging activities, and preserving a secure environment.

Following an acknowledgement of the necessity of old age homes in Mauritius, the government has established a number of laws and programs to boost the well-being of elderly people and provided some sponsoring options to social entrepreneurs venturing old age homes initiatives (Residential Care Homes Regulations, 2005). These include tax incentives to attract social entrepreneurs to invest in and run old age homes, financial assistance in the form of grants or subsidies for running expenses and regulatory assistance through licensing requirements, inspections, and training of personnel training to ensure that all care and safety criteria are respected.

Recommendations for Application

Recalling that Mauritius is experiencing an ageing population caused by longevity of the baby boomers' generation and the decrease in the younger generation population. While there is an increase in the dependency ratio, the joint family structure has changed, and the working population has increased with more women working. More elderly people who are encountering health issues or need assistance to perform their activities are living alone in their homes and it is not quite prudent. According to World Data Atlas (2023) the Mauritius' employment to population ratio in 2021 was 52.4%. Though the employment-to-population ratio in Mauritius has fluctuated significantly in recent years, it has tended to rise from 2002 to 2021, peaking at 52.4% in 2021. A decrease in the younger generation coupled with an increase in the working population means that the elderly will be more on their own during working hours. This demographic shift is leading to a societal problem *vis-à-vis* our elderly people and based on the findings of this study, recommendations will be formulated for application in this section.

The demographic shift has changed the structure of families and household composition. The nature of relationships between generations continues to evolve, in a negative way, as more and more of our elderly are in isolation. The study shows that daily activities to be performed and health status of elderly people do not stand out to determine the decision to move at an old age home, but loneliness does. Findings in the study show that loneliness is the main cause for elderly people to change their place of residence. According to the World Health Organization (WHO, 2023), a substantial amount of

evidence indicates that social isolation and loneliness have a negative influence on the longevity, physical and mental health, and quality of life of elderly people.

Elderly people should not be left in isolation and should these situations arise, their place of residence should be rethought. As Agyemang (2020) mentioned, social entrepreneurs act as change agents to attract people with brilliant ideas to improve people's lives through creation of new products and services. Findings of this study showed that there is a waiting list of elderly people wanting to get a place to stay in old age homes which brings us to conclude that there are not enough such facilities available in Mauritius. The findings also showed that in all cases forming part of the sample population, the waiting time to get a place to stay is less than 6 months.

Social entrepreneurship is the solution because it helps to alleviate social difficulties, expedite societal development, and produce social values and benefits by combining resources to pursue chances for the establishment of organizations (Socci et al., 2020). With the demographic shift, the demand for old age homes will be on the rise and it is strongly recommended that social entrepreneurs should take proactive action for construction of more old age homes to alleviate this social difficulty. Stakeholders and social entrepreneurs can cooperate to handle the changing requirements of the aged population and develop long-term solutions for elderly care in Mauritius.

The formal and informal care system in Mauritius is facing a challenge due to the number of elderly people with unmet care and support requirements is growing significantly. Addressing these unmet needs is quickly becoming one of the most pressing public health challenges. To design successful solutions to some of these demands, it is necessary to first understand the care and support needs of older individuals.

As stated by Kharicha et al. (2017), ageing in place involves living in your own home as you age older for as long as feasible, rather than relocating into a long-term care or retirement home. Ageing in place may be an acceptable choice if you only require a little support with everyday activities, have an intimate circle of relatives and close companions nearby, and can get the appropriate home care services. The statement made by Kharicha et al. (2017) above is confirmed by the findings of this study which showed that elderly get support from their close ones when they are lonely, for daily healthcare assistance, and to socialize as family remains the most important source of support.

According to Miller et al. (2012), the ageing process experienced by older people causes a functional decline in their bodies. Ageing negatively affects the older person's hearing, vision and digestion; their urinary, cardiovascular and respiratory functions; and their mobility and safety, thermoregulation, sleep and rest. Elderly people should get support from the family to avoid further degradation of their health as they are their closest resource and are expected to facilitate and support them during their development phase to maintain their health and well-being. However, this is not always possible and old age

homes provide the solution. Care homes provide services to people with a wide range of needs and welcome people from all walks of life with equal care and compassion. When considering potential care homes or nursing facilities, it is recommended to select one where the resident is confident that all needs will be met and exceeded. It should also be ensured that the resident will be routinely provided with both physical and mental stimulation to live an active life.

Many elderly people wish to spend their old age healthy and want to accomplish something in their old days. Elderly people face numerous challenges when they move into an old age home as they fear to be away from their family and losing their independence. They may be concerned that they will no longer be able to make their own decisions and may also face social and emotional isolation being far from their family members. As Socci et al. (2020) stated, social solutions are concepts recognized and activities done to socially create solutions to be applied in local communities, whereas social change is the change brought about because of the social solutions' implementation. In line with the above, rather than viewing an ageing population as a bad social phenomenon, we must build a society in which the elderly can live a healthy, prosperous life via social engagement and contribution. It is therefore recommended that elderly support programs be put in place in local communities and encourage them to participate to avoid isolation and loneliness and contribute to the community. Not to be forgotten, elderly people do have certain potential that they can contribute to society. They do not always require support, but they can provide support for other members of the family as well as to their grandchildren.

As far as elderly who are residing in old age homes are concerned, their challenges of independence loss, social exclusion, and adaptation may be handled through proper assistance and healthcare. They should be assisted more closely in the initial stage until they adapt to their new environment and feel more at ease interacting with other residents. To achieve this, more qualified nursing and caring staff should be recruited to accompany the elderly in their adaptation phase.

Working with elderly at an old age home is a big challenge for employees which involves medical and emotional care for the residents. According to Weitzman (2021), nursing staff and caregivers have a very tiring and stressful job. They rarely get downtime and take few to no breaks during the day when no one requires their assistance or attention. Workplace stress exacerbates home stress, and vice versa, leaving little to no time or energy for hobbies and personal pursuits. At the same time, workplace efficiency may deteriorate, and employees may be less dedicated to patient care. To avoid this, it is recommended that some kind of support programs should be offered by employers to help the employees cope with the stress of caring for an elderly person and empower the care home with the skills needed to support the workforce.

Elderly people residing in old age homes should get proper treatment in case they are suffering from certain diseases. The findings of the study show that only basic care is provided to residents. But depending on the diseases they are suffering from; appropriate therapies should be adopted. Elderly people visit multiple hospitals and receive numerous

screening tests and medications at the same time (Arai et al., 2012). To address this issue, it is recommended that all residents should undergo a screening in medical institutions and appropriate treatment and therapies administered. In general, employees in an elderly care facility should be competent to provide such treatments and not limited to offering first aid and pain management medication. Training programs for medical professionals with a focus on geriatric care are more and more needed. This covers instruction in palliative care, mental health assistance, and age-related health difficulties. It is therefore recommended that old age homes invest in employee education and training for nursing homes which may appear to be costly at first, but in the long run the results will be astounding and worth the costs. Training and development are important as employees are trained and any weaknesses or lack of skill are identified for a better performance and employees' satisfaction.

As such, it is recommended that social entrepreneurs in Mauritius adopt and implement specific strategies to deal with issues that old age homes frequently encounter, like a lack of finance, legal restrictions, and a lack of trained employees in the following ways:

Addressing Limitations of Funding

Consider various sources of funding such as entering partnerships with private sector sponsors through the corporate social responsibility initiative put in place by the Government of Mauritius to fund social and environmental projects.

Highlight the value of donations for funding specific medical equipment and facility improvements and using crowdfunding platforms to reach out global donors who are passionate about elderly care Donations & Crowdfunding.

Collaborate with non-governmental organizations (NGOs) to provide senior care management training or consulting services.

Overcoming Regulatory Hurdles

Discuss with policymakers about establishing standards that are appropriate for the local socioeconomic circumstances.

To invest in administrative and legal resources to follow up closely on licensing issues, health laws and other relevant statutory obligations

Through PPPs (public-private partnerships), work together with government organizations to jointly create care programs, providing rewards like tax exemptions or grants in exchange for quality benchmarks.

Resolving Staffing Shortages

Collaborate with academic institutions to provide geriatric care certifications and establish avenues for students to enter the workforce as caregivers.

Current employees should receive on-the-job training that focuses on managing common needs for senior care, such as Alzheimer, dementia or mobility support.

To set up a digital employment platform for flexible and part-time caregiving positions by connecting caregivers with assisted living facilities.

Recommendations for Future Research

The ageing of the population is a challenge for the government of Mauritius, policymakers, social entrepreneurs and all citizens. As the population of Mauritius ages, provision of old age housing facilities is becoming increasingly significant and necessitates extensive and future research for the benefit of all system stakeholders. The house and place of residence can have an enormous influence on our physical and emotional health, especially for elderly people who spend more time at home. The appropriateness of their housing conditions is critical to their well-being and quality of life and also play an essential part in their ability to care for themselves or be taken care for at home if they become dependent.

In our ever-changing world, both men and women strive to provide for their families. As a result, parents spend most of their time at home alone, which is not always safe and secure. Nowadays, there are more and more cases where children and relatives do not have a choice but to relocate the elderly people into nursing homes because of their schedule and nature of work. People have got a bad notion of elderly care facilities which is incorrect and perceived as a location where children simply dump their elderly parents or grandparents out of a lack of affection or respect, nevertheless it is exactly the opposite of what happens. Because they care and do not want to take the risk that elderly people are

relocated in care homes. The elderly care service is a noble venture in which these children, preoccupied with the thousand problems they face, are unable to provide the ideal care for their parents. Some of these old people are sometimes diseased or have certain disabilities and they or their relatives choose to enlist the services of old age care facilities to provide them with the best personalized round-the-clock care in a community-based residential environment.

Old age housing facilities are an important component of elderly care, and with the ageing population of Mauritius, it is critical to have appropriate accommodations that respond to the needs of the elderly. Policymakers, healthcare professionals, and other stakeholders can obtain a better understanding of the requirements and preferences of the senior population in Mauritius by doing further research in these areas and allowing them to establish successful strategies for providing them with adequate housing options. The following recommendations can be addressed to ensure that future research on this topic is productive and meaningful.

Research can be carried out to assess both the quantity and quality of existing housing alternatives for elderly people in Mauritius. This can assist in determining the strengths and limitations of current facilities as well as providing knowledge about what improvements should be made. A comparative analysis of the various types of old age housing options available in Mauritius should be conducted to identify the advantages and

disadvantages of each sort and to determine which types of facilities are best suited to Mauritius' elderly population.

Research should be performed to better understand the special requirements and aspirations of Mauritius' ageing population. This data can be utilized to plan and build housing facilities that are tailored to the individual demands of the tenants. This can aid in identifying the gaps and issues that must be addressed in the design and implementation of senior home facilities.

The physical and emotional health of the elderly can be greatly influenced by the quality of their housing. Therefore, the impact of various choices for housing on the health and well-being of elderly people in Mauritius can be studied. Furthermore, the quality of care offered old age housing facilities in Mauritius, including the level of healthcare and social assistance provided to residents, should be assessed. Cultural and socioeconomic issues might have an impact on both the planning and construction of senior home facilities. As a result, research can be conducted to determine how these characteristics can be included into the planning and execution of elderly care facilities in Mauritius.

The funding and sustainability of senior housing are critical elements that must be investigated. Financial models that can be utilized to assist with the establishment and maintenance of these facilities, as well as ways for assuring their long-term sustainability, should be researched. The sustainability of old age housing facilities in Mauritius should

be evaluated, including their environmental effect and long-term financial viability. Many families and governments face difficulties in providing sufficient housing for the elderly. As a result, research may investigate funding possibilities and systems that can make housing accessible and cheap for all senior people in Mauritius.

Innovative ideas and technology have the potential to significantly improve the quality of life for elderly people in Mauritius. Exploration of innovative designs as well as technologies that can be used to improve the physical infrastructure, goods or services, and facilities available in old age home facilities should be performed. And evaluation of the accessibility of old age living facilities, including physical accessibility for persons with impairments, and the sufficiency of transportation choices for residents. Different approaches such as co-housing, shared living, and intergenerational housing can be investigated as alternatives to traditional old age homes.

Evaluate the accessibility of Mauritius' old age living facilities, including physical accessibility for persons with impairments, and the sufficiency of transportation choices for residents. Future research can help contribute to enhancing the standards of old age housing options in Mauritius and guarantee that senior citizens obtain the attention and assistance that they require by taking these recommendations into account.

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APPENDICES

Appendix A – UREC Approval



UREC Decision, Version 2.0 ☐

Unicaf University Research Ethics Committee Decision	
Student's Name:	<input style="width: 80%;" type="text" value="Kiran Shamloll"/>
Student's ID #:	<input style="width: 80%;" type="text" value="R1901D7268984"/>
Supervisor's Name:	<input style="width: 80%;" type="text" value="Dr Abdulrasaq Salman"/>
Program of Study:	<input style="width: 80%;" type="text" value="UUUU-DBA-900-3-ZM"/>
Offer ID /Group ID:	<input style="width: 80%;" type="text" value="O34887G36549"/>
Dissertation Stage:	<input style="width: 80%;" type="text" value="DS3"/>
Research Project Title:	<div style="border: 1px solid red; padding: 5px; min-height: 60px;">Social Entrepreneurship: An Emerging Market for Old Age Housing Facility in Mauritius caused by the Impact of Aging Population</div>
Comments:	<div style="background-color: #e6f2ff; min-height: 150px; padding: 5px;">No comments</div>
Decision*:	<input style="width: 80%;" type="text" value="A. Approved without revision or comments"/>
Date:	<input style="width: 80%;" type="text" value="02-Aug-2022"/>

*Provisional approval provided at the Dissertation Stage 1, whereas the final approval is provided at the Dissertation stage 3. The student is allowed to proceed to data collection following the final approval.

Appendix B – Informed Consent Form



UU_IC - Version 2.1



Informed Consent Form

Part 1: Debriefing of Participants

Student's Name:	Kiran SHAMLOLL
Student's E-mail Address:	kshamlo1@gmail.com
Student ID #:	R1901D7268984
Supervisor's Name:	Dr Abdulrasaq Salman
University Campus:	Unicaf University Zambia (UUZ)
Program of Study:	UUZ: DBA Doctoral of Business Administration
Research Project Title:	Social Entrepreneurship: An Emerging Market for Old Age Housing Facility in Mauritius caused by the Impact of Aging Population

Date: 21-Mar-2022

Provide a short description (purpose, aim and significance) of the research project, and explain why and how you have chosen this person to participate in this research (maximum 150 words).

Aging Population has become a global issue and an increase in the number of old people in the society will impact heavily on the economy of Mauritius and it might not be possible to provide free old age homes facilities. In this context, there is an urgent need to develop this market and urge social entrepreneurs to provide such facilities.

The purpose of this study is to investigate this emerging market to find out about the demand and type of old age housing facilities and the special facilities that should be provided in accordance to the health conditions of old people. The best source of information about life and experiences in an old age home is from the people who are living and working there and for this reason such people will be selected to participate in the research. In situations where the participant is illiterate, a witness will sign the informed consent form for the participant.

The above named Student is committed in ensuring participant's voluntarily participation in the research project and guaranteeing there are no potential risks and/or harms to the participants.

Participants have the right to withdraw at any stage (prior or post the completion) of the research without any consequences and without providing any explanation. In these cases, data collected will be deleted.

All data and information collected will be coded and will not be accessible to anyone outside this research. Data described and included in dissemination activities will only refer to coded information ensuring beyond the bounds of possibility participant identification.

I, Kiran SHAMLOLL, ensure that all information stated above is true and that all conditions have been met.

Student's Signature: Kiran SHAMLOLL



Informed Consent Form

Part 2: Certificate of Consent

This section is mandatory and should to be signed by the participant(s)

Student's Name:	Kiran SHAMLOLL
Student's E-mail Address:	kshamlooll@gmail.com
Student ID #:	R1901D7268984
Supervisor's Name:	Dr Abdulrasaq Salman
University Campus:	Unicaf University Zambia (UUZ)
Program of Study:	UUZ: DBA Doctoral of Business Administration
Research Project Title:	Social Entrepreneurship: An Emerging Market for Old Age Housing Facility in Mauritius caused by the Impact of Aging Population

I have read the foregoing information about this study, or it has been read to me. I have had the opportunity to ask questions and discuss about it. I have received satisfactory answers to all my questions and I have received enough information about this study. I understand that I am free to withdraw from this study at any time without giving a reason for withdrawing and without negative consequences. I consent to the use of multimedia (e.g. audio recordings, video recordings) for the purposes of my participation to this study. I understand that my data will remain anonymous and confidential, unless stated otherwise. I consent voluntarily to be a participant in this study.

Participant's Print name: _____

Participant's Signature: _____

Date: _____

If the Participant is illiterate:

I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had an opportunity to ask questions. I confirm that the aforementioned individual has given consent freely.

Witness's Print name: _____

Witness's Signature: _____

Date: _____

Appendix C – Guardian Informed Consent Form



UU_GIC - Version 2.1



Guardian Informed Consent Form

Part 1: Debriefing of Participants

Student's Name:	Kiran SHAMLOLL
Student's E-mail Address:	kshamlooll@gmail.com
Student ID #:	R1901D7268984
Supervisor's Name:	Dr Abdulrasaq SALMAN
University Campus:	Unicaf University Zambia (UUZ)
Program of Study:	UUZ: DBA Doctoral of Business Administration
Research Project Title:	Social Entrepreneurship: An Emerging Market for Old Age Housing Facility in Mauritius caused by the Impact of Aging Population
Date:	23-Apr-2022

Provide a short description (purpose, aim and significance) of the research project, and explain why and how you have chosen this person to participate in this research (maximum 150 words).

Aging Population has become a global issue and an increase in the number of old people in the society will impact heavily on the economy of Mauritius and it might not be possible to provide free old age homes facilities. In this context, there is an urgent need to develop this market and urge social entrepreneurs to provide such facilities.

The purpose of this study is to investigate this emerging market to find out about the demand and type of old age housing facilities and the special facilities that should be provided in accordance to the health conditions of old people. The best source of information about life and experiences in an old age home is from the people who are living and working there and for this reason such people will be selected to participate in the research. The Guardian Informed Consent Form will be

The above named Student is committed in ensuring participant's voluntarily participation in the research project and guaranteeing there are no potential risks and/or harms to the participants.

Participants have the right to withdraw at any stage (prior or post the completion) of the research without any consequences and without providing any explanation. In these cases, data collected will be deleted.

All data and information collected will be coded and will not be accessible to anyone outside this research. Data described and included in dissemination activities will only refer to coded information ensuring beyond the bounds of possibility participant identification.

I, Kiran SHAMLOLL, ensure that all information stated above is true and that all conditions have been met.

Student's Signature: _____



Guardian Informed Consent Form

Part 2: Certificate of Consent

This section is mandatory and should to be signed by the participant's legal guardian

Student's Name:	Kiran SHAMLOLL
Student's E-mail Address:	kshamlo1@gmail.com
Student ID #:	R1901D7268984
Supervisor's Name:	Dr Abdulrasaq SALMAN
University Campus:	Unicaf University Zambia (UUZ)
Program of Study:	UUZ: DBA Doctoral of Business Administration
Research Project Title:	Social Entrepreneurship: An Emerging Market for Old Age Housing Facility in Mauritius caused by the Impact of Aging Population

I have read the foregoing information about this study, or it has been read to me. I have had the opportunity to ask questions and discuss about it. I have received satisfactory answers to all my questions and I have received enough information about this study. I understand that the participant is free to withdraw from this study at any time without giving a reason for withdrawing and without negative consequences. I consent to the use of multimedia (e.g. audio recordings, video recordings) for the purposes of the participation to this study. I understand that all data will remain anonymous and confidential, unless stated otherwise.

I, [redacted], the legal guardian
of [redacted] allow and provide consent
that [redacted] can willingly participate in the study.

I, [redacted], the legal guardian
of [redacted] have been ensured that verbal consent
given by [redacted] will also be taken before the study.

Appendix D – Employees Questionnaire

Employees Questionnaire

“Social Entrepreneurship: An Emerging Market for Old Age Housing Facility in Mauritius caused by the Impact of Aging Population”

You are invited to complete the following questionnaire which aims at examining the emerging market of old age housing facilities in Mauritius to determine the demand and type of facilities required by our senior citizens as well as the special facilities that should be provided in accordance with the health conditions of old people.

The questionnaire should only take 15 minutes to be completed and it includes **38** questions. Your responses are anonymous and will not be identified with you in any way.

By participating in this survey, you are indicating that you understand that your responses are anonymous and will not be identified with you in any way. You may skip any question that you find intrusive or offensive, but it will help me if you respond to as many questions as you feel comfortable with.

You have the right to withdraw at any stage (prior or post the completion) of the research without any consequences and without providing any explanation. In this case, the data collected will be deleted.

Please complete all questions and make sure you follow the instructions for each question.

1. What gender do you identify as? Choose one option.

- A. Male
- B. Female
- C. _____ (Short Answer Space)
- D. Prefer not to answer.

2. What is your age? Write the exact age in years.

- ☐ 20 - 29 years ☐ 30 - 39 years ☐ 40 - 49 years
- ☐ 50 – 59 years ☐ 60 - 69 years

3. Marital Status

- ☐ Single ☐ Married ☐ Divorced ☐ Widow ☐ Prefer not to answer

4. What is the highest degree or level of education you have completed? Choose one option.

- ☐ Primary School ☐ Secondary School ☐ Bachelor’s degree
- ☐ Master’s Degree ☐ Prefer not to answer

5. For how many years has the old age home been in operation?

- ☐ <1 Year ☐ 1 – 5 Years ☐ 5 – 10 Years
☐ 10 – 20 Years ☐ 20 – 30 Years ☐ > 30 Years

6. What position do you hold in the old age home?

- ☐ Administration ☐ Nursing Staff
☐ Personal Care Attendants ☐ Other

7. Do you have any prior working experience in old age home before joining here?

- ☐ Yes ☐ No

8. How long have you been working at this old age home?

- ☐ <1 Year ☐ 1 – 5 Years ☐ 5 – 10 Years
☐ 10 – 20 Years ☐ 20 – 30 Years ☐ > 30 Years

9. How many residents can the old age home accommodate?

- ☐ < 20 ☐ 20 – 40 ☐ 41 – 60 ☐ 61 - 80 ☐ 80 - 100 ☐ >100

10. What is the ratio of nursing staff and personal care attendants employed to the number of residents?

.....

11. Are the employees working on a shift system?

- ☐ Yes ☐ No

12. If yes to question 11, how many working shifts are there?

.....

13. Are you involved directly with the residents on a daily basis?

- ☐ Yes ☐ No

14. If yes to question 13, please elaborate in what way you deal with the residents daily.

.....

.....

15. Did you follow any special training to work in old age home?

- ☐ Yes ☐ No

16. If yes to question 15, please elaborate on the type of training you followed.

.....

.....

17. What is the most common illness being suffered by senior citizens in the home?

.....

18. Do you have an in-house Medical Practitioner to take care of patients in case of emergency?

☐ Yes ☐ No

19. (i) If yes to question 18, is the service available on a 24/7 basis?

.....

(ii) If no to question 18, what arrangement do you have in place to attend to residents in need of medical assistance in case of emergency?

.....

20. Do you offer the personal care plans for residents depending on their needs?

☐ Yes ☐ No

21. If yes to question 20, please elaborate on cases where such personalised care are provided.

.....

22. Do you have patients suffering from Alzheimer?

☐ Yes ☐ No

23. Are the personnel trained to take care of Alzheimer patients?

☐ Yes ☐ No

24. If yes to question 23, how long does the training last?

.....

25. Please elaborate on the type of assistance Alzheimer patients require?

.....

26. Do you have patients suffering from Dementia?

☐ Yes ☐ No

27. Are the personnel trained to take care of Dementia patients?

☐ Yes ☐ No

28. If yes to question 27, how long does the training last?

.....

29. Please elaborate on the type of assistance Dementia patients require?

.....

30. Are indoor activities organised for the residents?

☐ Yes ☐ No

31. If yes to question 30, what type of indoor activities are organised?

.....

32. On what frequency are such indoor activities organised in a week?

☐ Once ☐ Twice ☐ Thrice ☐ Four times
☐ Five times ☐ Six times ☐ Everyday

33. Are outdoor activities organised for the residents?

☐ Yes ☐ No

34. If yes to question 33, what type of outdoor activities are organised?

.....

35. On what frequency are such outdoor activities organised in a week?

☐ Once ☐ Twice ☐ Thrice ☐ Four times
☐ Five times ☐ Six times ☐ Everyday

36. Are the residents willing to participate in the activities organised?

☐ Yes ☐ No

37. What is their preference of activities?

☐ Indoor activities ☐ Outdoor activities

38. What is the biggest challenge to work in an old age home?

.....

Thank you for your precious time and contribution!!!

Appendix E – Residents Questionnaire

Residents Questionnaire

“Social Entrepreneurship: An Emerging Market for Old Age Housing Facility in Mauritius caused by the Impact of Aging Population”

You are invited to complete the following questionnaire which aims at examining the emerging market of old age housing facilities in Mauritius to determine the demand and type of facilities required by our senior citizens as well as the special facilities that should be provided in accordance with the health conditions of old people.

The questionnaire should only take 15 minutes to be completed, and it includes **37** questions. Your responses are anonymous and will not be identified with you in any way.

By participating in this survey, you are indicating that you understand that your responses are anonymous and will not be identified with you in any way. You may skip any question that you find intrusive or offensive, but it will help me if you respond to as many questions as you feel comfortable with.

You have the right to withdraw at any stage (prior or post the completion) of the research without any consequences and without providing any explanation. In this case, the data collected will be deleted.

Please complete all questions and make sure you follow the instructions for each question.

1. What gender do you identify as? Choose one option.

- A. Male
- B. Female
- C. _____ (Short Answer Space)
- D. Prefer not to answer.

2. What is your age? Write the exact age in years.

- | | | |
|--|--|--|
| <input type="checkbox"/> 20 - 29 years | <input type="checkbox"/> 30 - 39 years | <input type="checkbox"/> 40 - 49 years |
| <input type="checkbox"/> 50 – 59 years | <input type="checkbox"/> 60 - 69 years | <input type="checkbox"/> 70 - 80 years |

3. Marital Status

- ☐ Single ☐ Married ☐ Divorced ☐ Widow ☐ Prefer not to answer

4. Do you have any children?

- ☐ Yes ☐ No

5. What is the highest degree or level of education you have completed?**Choose one option.**

- ☐ Primary School
 ☐ Secondary School
 ☐ Bachelor's degree
☐ Master's Degree
 ☐ Ph. D or higher
 ☐ Prefer not to answer

6. Where is your home located? Choose one option.

A. B. Prefer not to answer.

7. For how long have you lived in your hometown/village?

- ☐ 1 – 5 years
 ☐ 6 – 15 years
 ☐ 16 – 25 years
☐ 26 – 35 years
 ☐ 36 – 45 years
 ☐ above 45 years

8. Was it your decision to move into an old age home?

- ☐ Yes
 ☐ No

9. Who were you staying with before being shifted into the old age home?

- ☐ Alone
 ☐ Children
 ☐ Relatives
 ☐ Other

10. Which of the following factors contributed to the decision to move into an old age home?

	Loneliness	Yes	No
i.	I live with my family		
ii.	I have close friends		
iii.	I have regular visits from children and friends		
iv.	I can rely on family and friends		
	Health care		
i.	I need assistance		
ii.	I need personal safety		
iii.	For better nutrition		
iv.	For good healthcare		
	Socialisation		
i.	Meet people of same age-group		
ii.	Proximity with people		
iii.	To have variety of activities		

11. Since how many years are you staying at the old age home?

- ☐ 1 – 5 years
 ☐ 6 – 10 years
 ☐ 11 – 15 years
 ☐ 15 – 20 years

12. How would you rate the following factors in your decision to move into an old age home?

No.		Major	Minor	Not a Factor	Not Sure
i.	Good health care facilities				
ii.	Personal Safety and security				
iii.	Better opportunities for social interaction				
iv.	Better nutrition				
v.	Assisted living				

13. Are you happy living in the old age home?

☐ Yes ☐ No

14. If yes, what makes you happy?

.....

If no, why are you not happy?

.....

15. Do you feel home sick?

☐ Yes ☐ No

16. Do you sometimes go home to spend time with your family on special occasions?

☐ Yes ☐ No

17. If yes to question 16, how frequent?

.....

18. How would you assess your personal health?

No.	Health Status	Please tick one (✓)
i.	Overall good	
ii.	Good with some minor health problems	
iii.	Good but with some major health problems	
iv.	Not very well	
v.	Bad	

19. If you have some health problems, what illness/es are you suffering from?

20. Are you taking medication?

☐ Yes ☐ No

21. If yes to question 20, on what frequency do you have to take medication?

No.	Health Status	Please tick one (✓)
i.	Once weekly	
ii.	Once daily	
iii.	Twice daily	
iv.	More than twice daily	

22. How is your health now compared to the time you initially moved into the old age home?

☐ Better now ☐ About the same ☐ Worse now
☐ Don't know ☐ Prefer not to answer

23. Do you require assistance in your daily life?

☐ Yes ☐ No

24. If yes to question 23, please indicate for which activity/activities you require assistance?

No.	Factor	Yes	No
i.	Eating/drinking		
ii.	Bathing		
iii.	Dressing up		
iv.	Moving around		
v.	Other		

25. Do you require any special facilities?

☐ Yes ☐ No

26. If yes to question 25, what type of special facilities do you need?

.....

27. Are such special facilities available in the home?

☐ Yes ☐ No

28. According to you, which of the following present potential hazards for risk of fall/injuries in the home?

No.	Factor	Yes	No
i.	Slippery floors in the bathroom		
ii.	Too high steps/uneven floors		
iii.	Absence of grab bars in corridors		
iv.	Absence of handrails on stairs		
v.	Poor lighting		
vi.	Unstable furniture/shelves		
vii.	Poorly fixed electrical wires		
viii.	Inappropriately assembled bed frames		

29. How do you think the facilities may be better and safer for you?

No.	Factor	Yes	No
i.	Bathroom floors must be made of materials that do not slip		
ii.	Thresholds should be flattened or removed		
iii.	To instal grab bars in corridors		
iv.	To fix/add handrails on stairs		
v.	To provide for more lighting for better visibility		
vi.	Ample space to be provided to walk around the bed		
vii.	Windows should be easy to open		
viii.	Doors should open easily		

30. Which of the following best describe the service in the dining room and quality of food?

No.	Factor	Yes	No
i.	Good service		
ii.	Comfortable chairs and tables		
iii.	Cleanliness and well maintained		
iv.	Adequate seating capacity for all residents		
v.	Politeness of servers		
vi.	Punctuality of food service		
x	Pleasant environment		

31. According to you, what are your suggestions to improve the service provided in the dining room?

.....

32. How would you rate the quality of food provided?

☐ Excellent ☐ Good ☐ Eatable ☐ Bad ☐ Prefer not to answer

33. How is the quality of food served in the dining room?

No.	Factor	Yes	No
iv.	Tasty food		
v.	Variety in the menu		
vi.	Healthy food		
ix.	Well balanced		
x	Food served according to dietary restrictions		

34. Do you have any suggestion for food improvement?

.....

35. In general, are you satisfied with the services provided the old age home?

☐ Yes ☐ No

36. If no to question 35, with what aspect or service are you not satisfied?

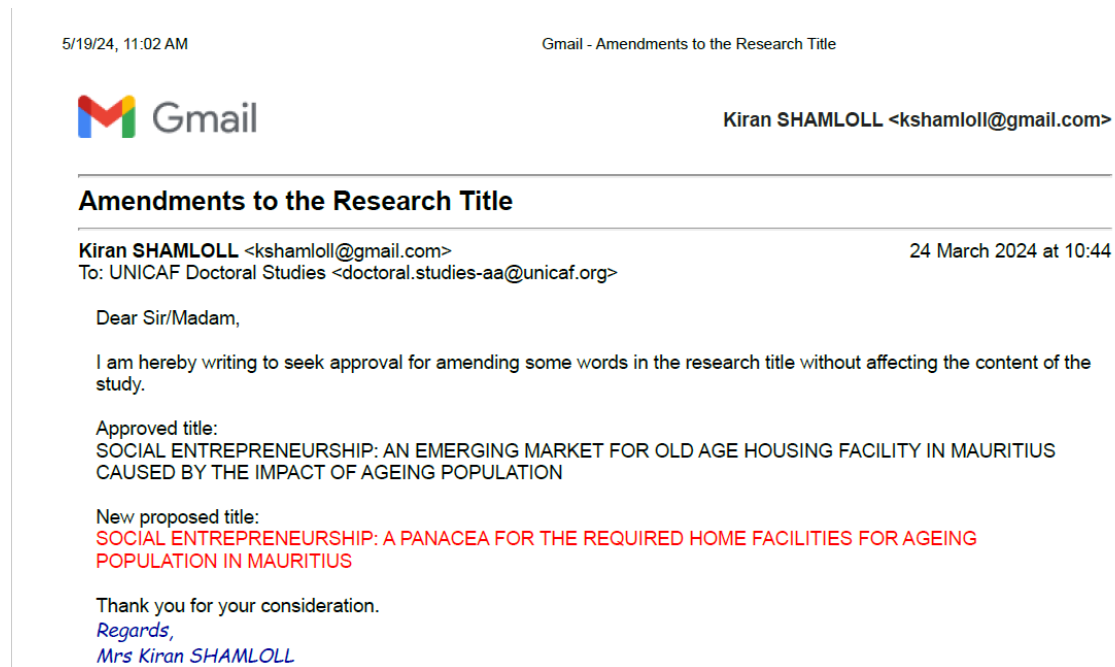
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37. Do you have any suggestion for improvement?

.....

Thank you for your precious time and contribution.

Appendix F – Request to the UNICAF Doctoral Team for Approval for Amending Some Words in the Research Title



Appendix G – Approval Granted by UNICAF to Amend Some Words in the Research Title

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On Fri, Mar 29, 2024 at 8:54 PM Abdulrasaq Salman <a.salman@faculty.unicaf.org> wrote:
The change in the topic of the candidate is approved. Thank. Regards.

On Fri, Mar 29, 2024, 12:54 PM Unicaf Doctoral Studies <doctoral.studies-aa@unicaf.org> wrote:
Dear Dr Salman,
We hope this email finds you well.

Please consider this as a kind reminder to confirm that you approve the change in the title.

Please do not hesitate to contact me in case you have any questions,

Kind regards,

Fotini Efthymiou

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