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Tanja Tyvimaa

Developing and Investing in Senior Houses in Finland
Seniors' Preferences and Investors' Insights



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Tanja Tyvima

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Abstract			
<p>Many countries have ageing populations, and changing population trends will influence the demand for houses and the type of housing required. Ageing population creates challenges for the housing market and homebuilders as well as providing new business opportunities. In Finland, the housing market is changing and responding to societal, economic and financial inputs. Finnish seniors prefer to age-in-place, but often senior citizens are living alone and the services served in their homes do not remove the problems related to loneliness. However, for society the most affordable way to take care of seniors is that they live at home as long as possible.</p> <p>Not many housing alternatives are offered for seniors in Finland. The development of independent living facilities called ‘senior houses’ has been increasing in the last decade. Senior houses are apartments for residents who are 55 years of age or over and who can live independently and take care of themselves. There are no regulations as to what kind of buildings can be called senior houses and there is no inventory of the number of units available. The senior housing market is still in its infancy and the market is dominated by few housing investors.</p> <p>The purpose of this study is to increase knowledge of the senior housing market in Finland. A core part of the study is the investigation of the preferences of senior citizens, with the aim to establish those matters that Finnish seniors value when they choose their retirement destinations, the kind of attractors they have and the services they prefer. The study also considers investors’ insights and raises issues concerning investment in new retirement communities, development of new business concepts and services offered.</p> <p>The findings of the study complement other international research on the topic. The evidence indicates that elderly people value location and neighbourhood services, and that public services are important for Finns. On-site services are not yet so important for seniors and retirement villages are not common in Finland. However, the use of housing services is increasing and seniors are more interested in age-restricted, purpose-built communities.</p> <p>From the investors’ viewpoint, there are many challenges in the Finnish senior housing market. Usually, investment and operational costs are higher in senior houses than in conventional houses because of better construction. The higher costs means that rents are higher. The challenge for investors is how to make senior houses attractive so that a senior customer would choose an apartment in a senior house instead of a conventional apartment. The study shows that once a lease-up occurs, the turnover is relatively low. Furthermore, senior tenants have no evictions, no rent arrears and no vandalism and hence represent lower risk. An added advantage is that senior tenants are in the main social leading to better community spirit.</p>			
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<p>Tiivistelmä</p> <p>Väestön ikääntyessä suomalainen asuntomarkkina kohtaa uudenlaisen haasteen pyrkiessään täyttämään suurten ikäluokkien asumisen tarpeet. Suomalaiset ikääntyvät haluavat asua kotonaan mahdollisimman pitkään. Kuitenkin yhä useampi ikäihminen asuu yksin, eikä kotiin tuotetuilla palveluilla pystytä ratkaisemaan yksinäisyyden tuomia ongelmia. Toisaalta, yhteiskunnan kannalta edullisinta on, että ikääntyvät pystyvät asumaan kodinomaisissa olosuhteissa mahdollisimman kauan.</p> <p>Suomessa ikääntyvien itsenäisen asumisen muodot eivät ole vielä pitkälle kehittyneitä. 2000-luvulla on alettu rakentaa erilaisia senioritaloiksi kutsuttuja, ikäspesifejä asuinrakennuksia. Senioritaloja ei kuitenkaan ole mitenkään yleisesti määritelty ja tarjonta onkin varsin kirjavaa. Senioritalomarkkina ei myöskään ole kehittynyt vielä houkuttelevaksi sijoituskohteeksi ja rakennuttaminen onkin pääosin muutaman suuren asuntotuottajan hallitsemaa.</p> <p>Tämä tutkimus tarjoaa senioriasuntojen tuottajille ja senioriasumismarkkinasta kiinnostuneille tietoa suomalaisten ikääntyvien asumisen tarpeista ja kokemuksista. Toisaalta, sijoittajan näkökulmasta on tutkittu markkinan kannattavuutta ja kustannusrakennetta. Tutkimus antaa perustietoa asuntomarkkinan yhdestä voimakkaasti kehittyvästä osa-alueesta.</p> <p>Tutkimuksen tulokset ovat osin samankaltaisia kuin muissakin maissa. Ikääntyvät arvostavat sijaintia ja asuinympäristössä olevia palveluja. Suomalaisten ikääntyvien arvomaailmassa julkisesti tuotetut ja ylläpidetyt palvelut ovat tärkeitä. Asunnon yhteydessä tarjottavat palvelut eivät vielä ole kovin tärkeitä suomalaisille senioreille, eivätkä seniorikylät ole vielä yleistyneet Suomessa. Lisääntyvässä määrin ikääntyneet kuitenkin hankkivat asumisen palveluja joko ostamalla ne yksityisiltä palveluntarjoajilta tai muuttamalla ikäspesifiin, palveluja tarjoavaan asuinyhteisöön.</p> <p>Sijoittajan kannalta senioriasumisessa on monia haasteita, jotta sijoittaminen on kannattavaa ja tuottavaa. Yleensä ikäspesifin asuinrakennuksen investointi- ja operointikustannukset ovat korkeammat kuin vastaavien tavallisten asuintalojen. Tämä on myös haaste markkinoinnille, jotta asuntoa hankkiva saadaan vakuuttumaan muuttamisen kannattavuudesta.</p> <p>Sijoittajalle seniorit ovat hyviä asukkaita. Seniorit muuttavat vähemmän ja näin ollen vaihtuvuus ja siitä syntyvät kustannukset ovat vähäisiä. Seniorikohteissa ei myöskään raportoida ilkeävaltaa ja asukasongelmia niin paljon kuin tavallisista kohteista.</p>			
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*Every day may not be good,
but there's something good in every day.*

~Author Unknown

Over the last ten years, I have been jumping between industry and academic world. At first the idea of doing a PhD degree was something unattractive: being alone in a dusty, 'research chamber,' having spectacles with thick lenses and tangled hair. No thanks. But things happen for a reason. I got my chance, I seized an opportunity and soon I realized I was in the most fascinating academic world.

First of all, I would like to thank my instructor Professor Karen M. Gibler at Georgia State University for the guidance she gave me during my visiting scholar period in Atlanta and all her valuable advice. Also, I am thankful to my supervisor, Professor Teuvo Tolonen for giving me an excellent opportunity to conduct my research. Furthermore, I am grateful to the pre-examiners, Professor Stanley McGreal and PhD Raija Hynynen, who have provided me with valuable comments.

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My special thanks go to my family and friends, close and far away, for their continuous encouragement and support.

Finally, the theme of this dissertation has been near to my heart for many years and I have been lucky to have an opportunity to do my dissertation on the field of the study, which is personally important for me. Therefore, I want to pay a tribute to my loving grandmother, who always encouraged me to do what my heart wants to do. Thanks Grandma somewhere there!

Tampere, August, 2010

Tanja Tyvimaa

LIST OF APPENDED PAPERS

This dissertation of Doctor of Science in Technology summaries the following publications:

Paper 1

Tyvimaa T. & Gibler K.M. Pull factors attracting residents to Finnish senior houses, *International Real Estate Review*, (permission to publish 4.6.2010)

Paper 2

Tyvimaa T. & Kemp C.L. Finnish seniors' move to a senior house: Examining the push and pull factors, *Journal of Housing for the Elderly*, Vol. 25, No. 1. (permission to publish 15.7.2010)

Paper 3

Tyvimaa T. Social and physical environments in seniors' communities: the Finnish experience, *International Journal of Housing Markets and Analysis*, (permission to publish 26.8.2010)

Paper 4

Tyvimaa T. & Gibler K.M. Senior House Operations in Finland, *Senior Housing & Care Journal*. 2010, Vol. 18, No. 1.

CONTRIBUTION OF THE AUTHOR TO PAPERS 1 TO 4 AS FOLLOWS:

Paper 1

The author of this dissertation is responsible for initiating this paper and had the main responsibility in data collection. The data analysis and writing the paper was done in cooperation with the co-author.

Paper 2

The author of this dissertation is responsible for initiating this paper and had the main responsibility in data collection and analyzing. Writing the paper was done in cooperation with the co-author.

Paper 3

The author of this dissertation is fully responsible for writing this paper.

Paper 4

The author of this dissertation is responsible for initiating this paper and had a responsibility in data collection. The data analysis and writing the paper was done in cooperation with the co-author.

TABLE OF CONTENTS

1. INTRODUCTION.....	1
1.1. Purpose of the study	1
1.2. Structure of the dissertation.....	2
2. DEMOGRAPHIC TRENDS AND HOUSING STOCK	4
2.1. Global demographic trends	4
2.2. Demographical trends in Finland	5
2.3. Housing stock in Finland.....	9
2.4. Housing alternatives for senior citizens in Finland.....	13
3. RESEARCH PROBLEM AND OBJECTIVES	18
3.1. Identification of seniors' housing preferences	19
3.2. Conceptualization of Finnish senior housing market.....	21
4. RESEARCH METHODOLOGIES.....	23
4.1. Research approach.....	23
4.2. Process of the study.....	24
4.3. Case studies	25
4.4. Data collection and sample	28
4.5. Data analysis	31
5. RESULTS OF THE STUDY.....	34
5.1. Preferences of Finnish seniors.....	35
5.2. Service packages for seniors	41
5.3. Social and physical environments in senior houses	42
5.4. A senior house as an investment	45
5.5. Conclusion of the results	47
6. JUSTIFICATION AND EVALUATION OF THE RESEARCH	51
6.1. Contribution of the research.....	51
6.2. Evaluation of the research	52
6.3. Suggestions for future research	57
REFERENCES.....	59

1. INTRODUCTION

1.1. Purpose of the study

Many countries face fast ageing of their population in the coming decades, and as population trends are changing, the demand for houses and housing needs will change. An ageing population creates challenges for the housing market and homebuilders as well as represents new business opportunities.

While the majority of people throughout the world prefer to age in place in their apartments or houses, a growing minority in western countries are moving to housing specially designed for older residents. This study focuses on the housing market for a fast ageing population. Housing associations and investors as well as authorities need information about the housing needs and preferences of elderly residents.

The Finnish population is ageing fast and the demand of purpose-built apartments for senior citizens will increase in the next twenty years. Finland has a baby boomer generation like many other western countries; but the Finnish housing market does not yet offer a varied selection of retirement communities. Finnish investors are interested to invest in senior housing, but the lack of experience in this market and supporting research decreases the attractiveness of the senior housing market.

The purpose of this study is to increase the knowledge of the senior housing market in Finland. The approach of the study is practical in nature. In particular the study considers the preferences of senior citizens with the objective of finding out what Finnish seniors value when they choose their retirement destinations, what kind of attractors they have and what services they prefer. The study also investigates investors' insights and examines the costs and revenues across properties. The purpose is to assess financial performance and increase the understanding of Finnish senior housing operations.

A main focus of the dissertation is to provide information for operational decision making process and thereby increase knowledge of what investors should supply for seniors and how to fulfil the needs of senior residents. The following primary research question is formed from the literature review and the researcher's pre-understanding of the research area:

RQ: How to develop attractive and cost-effective senior houses in Finland?

In order to be able to solve the research problem of the study the objectives are:

- To define push and pull factors which influence the relocation decision of seniors
- To identify the meaning of social and physical environments for seniors and their social lives
- To investigate financial performance of senior houses

The findings of this study should have practical application in helping investors to build new retirement communities and develop new business concepts for the senior housing market.

1.2. Structure of the dissertation

This dissertation consists of a summary and four individual studies. All papers have been reviewed and accepted for publication in scientific journals.

Paper 1 identifies pull factors and variables which attract seniors to move to a senior house. The quantitative data underpinning this paper has been collected by residential surveys. The results were ranked by the mean importance score. Factor analysis was also used to determine whether variables could be combined into a smaller number of pull factors. This study helps to determine the universality of the push-pull framework and identifies unique factors that developers should consider in forecasting the demand for senior housing in Finland.

Paper 2 explores the factors that influence Finnish seniors' decisions to move to a senior house. The purpose of this paper is to identify the main attributes and features that influence the decision-making process for Finnish seniors. The analysis is based on qualitative data gathered during face-to-face interviews in three independent living settings in three different cities in Finland. The results help investors and developers plan settings which attract Finnish seniors.

Paper 3 discusses residents' views of social and physical environments in a cohousing setting and a senior house. The study compares social environments of the communities and explores connections between common areas and activities. The paper provides information on and understanding to the experiences of Finnish senior citizens and it studies how the development of this real estate business can advance the quality of life of those residing in these communities.

Paper 4 discusses current operations and financial performances of rental, senior house apartments. The study investigates the costs and revenues of ten senior houses in the City of Tampere. The results provide insights into this relatively young market with complicated government involvement. Also, comparison is made with the senior housing market in other countries where the market is more mature.

The summary section of this dissertation discusses global demographic trends, introduces the structure of the Finnish population and predicts the size of the senior population in the future. The nature of the Finnish housing market is discussed and senior housing alternatives are described. The research problems and objectives of this dissertation are explained in Chapter 3 and the research methodologies are represented in Chapter 4. Chapter 5 summarizes the contents of the four papers and the main results of this dissertation. Chapter 6 provides a conclusion to this summary and presents some ideas for future research.

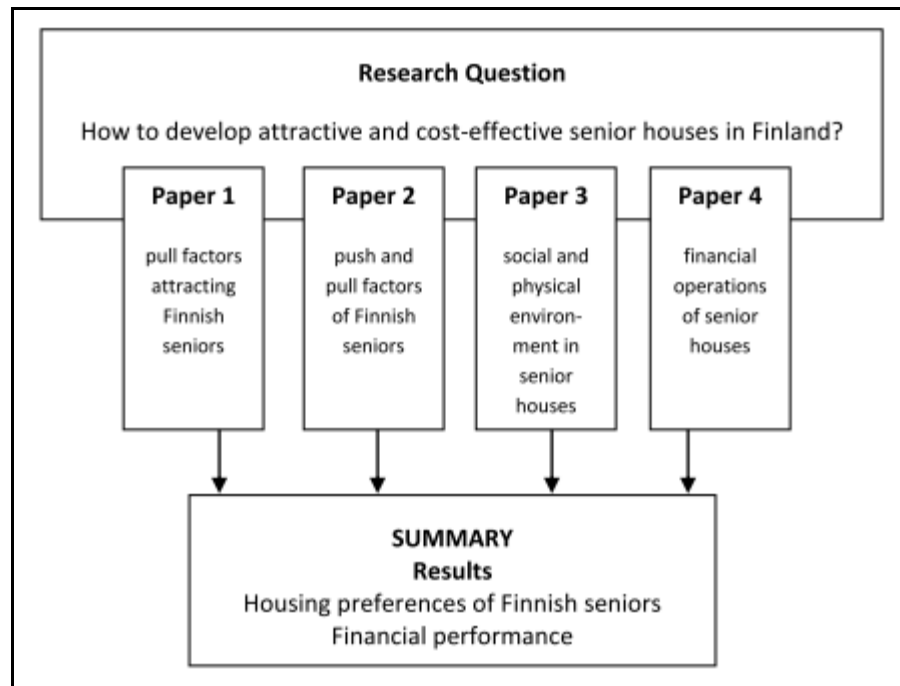


Figure 1. The structure of the dissertation; the main research question and the themes of the papers.

Figure 1 outlines the structure of the dissertation. Each paper has its own purpose and goals. Some papers utilise the same data but the methods of analysis are different. The research question is discussed from different viewpoints, giving wider results and multifaceted findings. The findings of the individual papers are connected in the summary section.

2. DEMOGRAPHIC TRENDS AND HOUSING STOCK

2.1. Global demographic trends

The main demographic trends in western countries, especially in Europe and in the US, are increasing and ageing populations. In the next 20-30 years many countries will face a remarkable increase in the number of elderly people.

In the US population more than tripled from 76 million to 281 million during the period 1900-2000 (Hobbs & Stoops, 2002). At the beginning of the 20th century, half of Americans were less than 22.9 years old, in comparison at the end of the 20th century half of the population was more than 35.3 years old and, based on projections, the population is further ageing. Following the Hobbs & Stoops' report, the number of household members has decreased. For example in 1950 single person households represented only 9.5% of all households while in 2000 26.0% of households were single person households.

Furthermore, the report Administration on Aging (2009) considers that the population in the US aged 65 and over will increase from 35 million in 2000 to 40 million in 2010 and 55 million in 2020. The share of population of 85+ is projected to increase from 4.2 million in 2000 to 6.6 million in 2020. The same report notes that elderly women (22.4 million) outnumber elderly men (16.5 million). Half of the women aged 75 or over live alone. Persons reaching age 65 in 2008 have a life expectancy of an additional 18.6 years suggesting a rising demand for senior or more specialised housing (Administration on Aging, 2009).

The population in the EU is growing at a relatively slow rate when compared with Asia or Africa (Eurostat, 2009). Based on Eurostat (2008) statistics, the population of the EU countries will increase from 495.4 million in 2008 to 520.7 million in 2035. The population is projected to become older with median age projected to rise from 40.4 years in 2008 to 47.9 years in 2060. Eurostat has also projected that a number of older people (65 and over) will increase from present 17.1% to 30.0% in 2060. The number of people aged 80 years or over will triple (61.4 million) in 2060. The population age structure in the EU is the result of persistently low fertility rates, high life expectancy and the baby boom generations reaching higher ages (Eurostat, 2009). Two-thirds of the European countries will experience a decrease of their working age population. In 2060, the working age population is projected to be 50 million smaller compared to 2008 (Eurostat, 2008).

There are many countries in Europe which face very fast ageing of populations (Figure 2). For example, in Slovenia, the share of the total population aged 65 years or over is 16.6% in 2010 and is projected to be 29.1% in 2040. Other countries facing fast ageing are Germany from 20.6% in 2010 to 31.1% in 2040, Italy from 20.3% to 30.8% and UK from 16.4% to 22.5% (Eurostat, 2008).

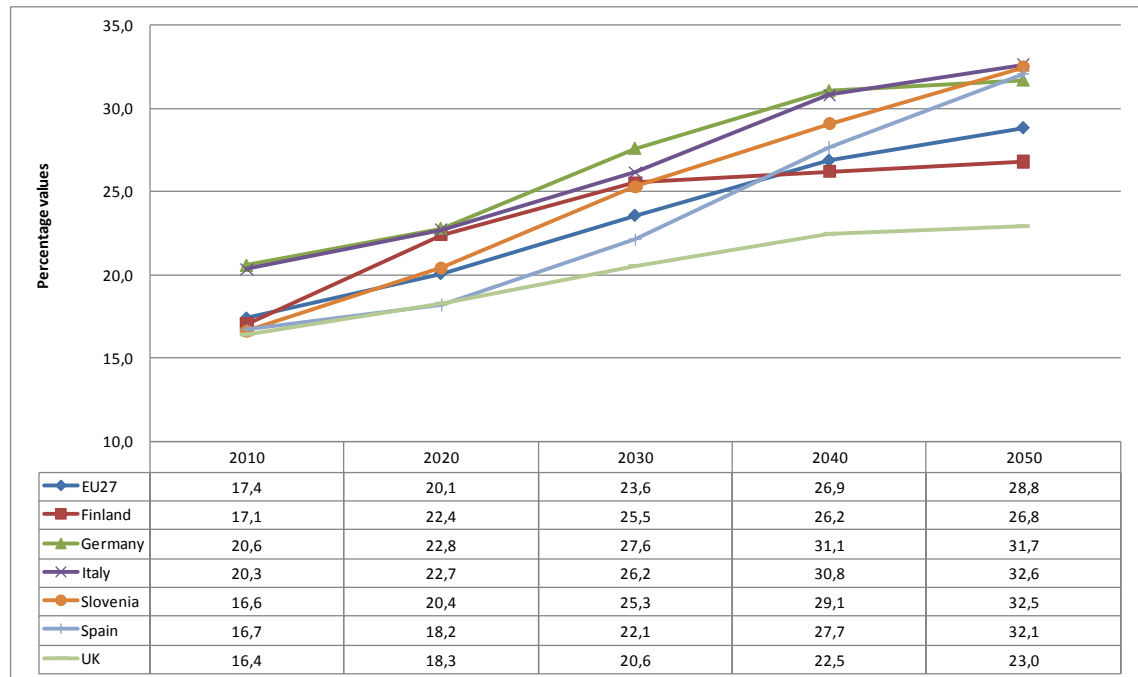


Figure 2. Share of population aged 65 years or over, in EU countries, in selected countries and selected years (Eurostat, 2008).

As Hobbs & Stoops (2002) mentioned, household sizes have become smaller in the US. Also in Europe, many countries have more single person households than during last century. In UK, there were 25.2 million households in 2009, an increase of 8.9 million since 1961, meaning the average household size has decreased from 3.1 people to 2.4 people (Office for National Statistics, 2010). Statistisches Bundesamt Deutschland (2010) reports that the average household size has fallen in Germany from 2.27 in 1991 to 2.05 persons in 2008. The average household size in the EU was 2.4 in 2007 within the highest average in Malta (3.0) and the lowest value in Germany. Generally, the northern European countries reported a lower average number of persons per household than the Mediterranean countries (Eurostat, 2009).

2.2. Demographical trends in Finland

At the end of 2009, there were 5,351,427 Finnish citizens (Statistics Finland, 2010a). In 2008, life expectancy was 82 years for males aged 65 years of age and 86 years for females aged 65 years. Finnish women live approximately three or four years longer than men (Statistics Finland, 2009). The demographic dependency ratio, which is the

number of children and elderly people per hundred persons of working age, was 50 in 2006. By 2030 this ratio will increase to 74.6 (Statistics Finland, 2007).

Projections of Statistics Finland (2010a) indicate that the population will be 5.85 million by 2030. The projection does not take into account changes in society or the economy but it is based on fertility, mortality and migration rates. The figures are based on the assumption that the current trends will continue unchanged.

In 2008, 68.5% of Finns lived alone or with just a spouse, and the size of household was 2.09, on average; meanwhile, 55.6% of females and 26.7% of males 75 years of age or over lived alone (Statistics Finland, 2010a). Elderly women living alone outnumber men, and Karisto *et al.* (2003) has discovered some reasons for this. Finnish women have longer life expectancy than men have and also, women tend to marry older men than they are themselves. The household size is projected to be 1.92 in 2025 (Juntto, 2008). The structure of household-dwelling units differs between rural and urban areas. The share of one-person households is larger in urban areas (43.1%) than in rural areas (35.7%) (Statistics Finland, 2008a).

Finnish people move more than people in other EU countries (Tilastokeskus, 2007). Almost half of young people (under 35 years of age) are planning to move. According to official statistics of Finland the main reasons for moving are reasons related to an apartment, such as existing apartment being too small, moving from a rental apartment to owner-occupied apartment or house, or housing costs. There is evidence of mobility amongst the elderly population with 13% of people aged 65-74 and 11% of those aged 75 or over planning to move (Tilastokeskus, 2007). On the other hand a study by Heywood *et al.* (2002) indentified that elderly citizens are not so willing to move. They listed some reasons why seniors do not move, such as friends in neighbourhood, familiarity of existing neighbourhood and a lack of other housing options. Clough *et al.* (2004) provided another perspective in identifying that senior residents in the UK do not know available housing options.

2.2.1. Seniors' housing conditions and statistics in Finland

It is projected that Finland will experience considerable growth in its senior population. At the beginning of the 21st century, 15% of the Finnish population was aged 65 or older (Statistics Finland, 2009), making it the fourth youngest population in Europe. By 2030, the Finnish population is expected to be the third oldest in Europe (Olsbo-Rusanen & Väänänen-Sainio, 2003) with 25.5% of the population 65 years of age or older (Eurostat, 2008).

The number of citizens over 65 years is increasing rapidly and this trend is likely to continue for 10 to 20 years due to life expectancy increasing (Figure 3). In Finland in 2009, the number of people over 65 was approximately 0.91 million representing about

17% of the population. By 2030, the number of Finnish citizens who are 65 or over will rise to represent 26% of the population with 1.53 million people, meaning an increase of 620,000 (Statistics Finland, 2009).

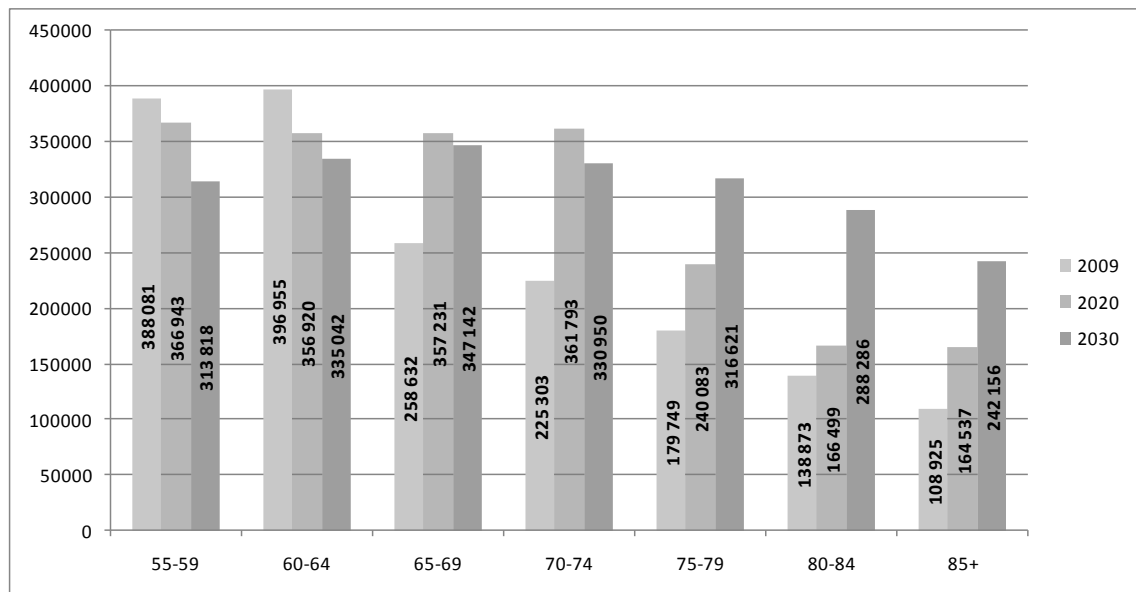


Figure 3. Number of people in selected age groups in years 2009, 2020 and 2030 in Finland (Statistics Finland, 2009).

Finnish ‘baby boomers’ are the post-war generation who were born during 1946-1950 (Juntto & Vilkkö, 2005), however in Finland, the generation of baby boomers is comparatively smaller than in other countries because the baby boomer period was shorter, only four years. For example in the US, baby boomers represent the generation born during 1946-1964 with approximately 80 million babies born during the baby boom (Bouvier & DeVita, 1991). Furthermore, in Finland, baby boomers did not give birth to many babies meaning that there is not another baby boom to follow (Karisto, 2005). In contrast to the US, there has been a baby boom echo (Bouvier & DeVita, 1991).

At present, 42% of Finnish senior citizens live in single family houses and 38% of all seniors own a single family house (Poutanen *et al.*, 2008). A small share of seniors lives in a single family house owned by someone else. A large majority (88%) of seniors owns an apartment or a house. Apartments for the elderly are more often older - housing stock built between 1940 and 1970 - and lack lifts meaning that accessibility problems are very common (Välikangas, 2006). According to Statistics Finland (2010a), the most popular housing type is a single-family house for seniors aged 55-64 and living in a household of two persons. Single seniors usually live in apartments in multi-family buildings. There is evidence that the popularity of single-family houses is decreasing amongst seniors and apartments in multi-family buildings become a more preferred housing type. The housing types in different age groups and household sizes are shown in Figure 4.

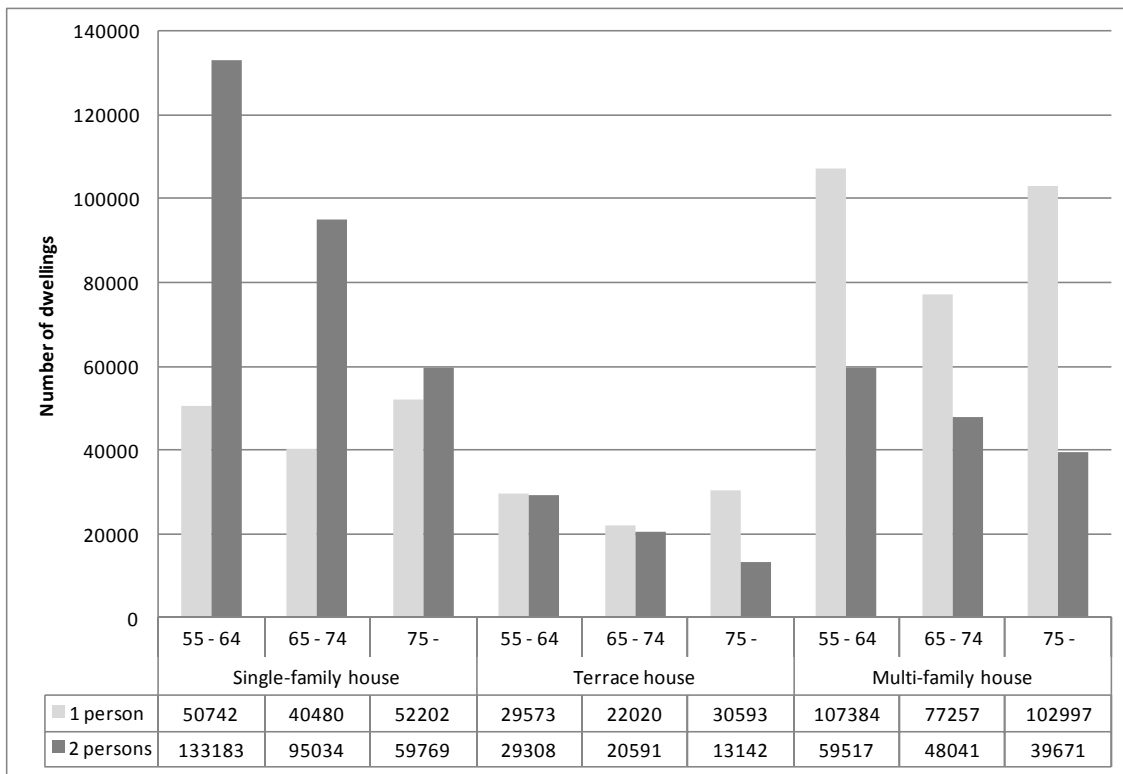


Figure 4. Number of dwellings by housing type, age range and size of household in Finland (Statistics Finland, 2010a).

Two thirds of Finnish seniors aged 70 or over are happy with their housing conditions (Tilastokeskus, 2007). Those who have problems, feel the location of the dwelling is isolated or there are not any services in the neighbourhood. Also, a lack of a lift, inadequate public transportation or too large apartment can be reasons to cause problems in everyday life (Tilastokeskus, 2007; Poutanen *et al.*, 2008).

2.2.2. Senior citizens' incomes and assets

Overall the wealthiest Finns are persons aged 55-64 years of age (Tilastokeskus, 2007). Incomes are the highest in this age category and often these individuals own their homes. On average, the monthly salary of people in the age range 55-59 years of age was 2,946 euros in 2008 (Tilastokeskus, 2010c). In contrast, many seniors aged over 75 years have low-incomes and small pensions because their incomes were lower during their life. According to Poutanen *et al.* (2008) 11% of all seniors aged 55 and over, and 18% of the age range 76-95 years of age have low-incomes. An average pension based on 2009 data, was 1,223 euros per month (Statistics Finland, 2009). According to Finnish official statistics, an employment pension was 1,294 euros per month and a pension from The Social Insurance Institution of Finland 806 euros per month. Pensioners consume 36% of their total expenditure to housing and energy, on average.

Housing represents the biggest part of all assets of senior citizens. According to age cohorts, people in the age range of 55-64 years of age have total assets of 213,910 euros

per household on average and from that, 124,540 euros (58%) is in the value of their dwelling (Statistics Finland, 2009) whereas people aged 65 years and over have smaller total assets of 139,210 euros per households on average with the value of their dwellings being 93,950 euros (67%). Importantly few elderly people have housing loans. Poutanen *et al.* (2008) report that the portion of persons having a house loan decreases with age. In the age range 69-75 years of age only 5% have a house loan.

2.3. Housing stock in Finland

At the end of 2007, dwellings in Finland numbered 2,732,000 and during that year 31,000 new dwellings were completed. Thus, new dwellings form only 1.5% of the current dwelling stock. Following national statistics, 37% of the current dwelling stock has been built before the 1970s. At the end of 2007, 44% of all dwellings were in blocks of flats. However, only one-third of the population lives in blocks of flats.

Apartments are relatively small in Finland (Viitanen *et al.*, 2003) but the size of households is also small. The average floor area of a dwelling was 78 square meters. The average floor area of rental dwellings was just 54 square meters; whereas owner-occupied dwellings had 93 square metres on average (Statistics Finland, 2008b). The living area per person in 2009 was 38.9 square meters on average (Tilastokeskus, 2010a). According to national statistics, there are also differences between regions and socio-economic factors. In metropolitan Helsinki the average living area is 36.1 square meters per person and at the same time, in Åland, the average is 44.2 square meters per person. The wealthiest households have 66 square meters per person on average whereas people with low-income have only 37 square meters per person. According to age cohorts, people in the age range of 25-34 have less square meters than people in the age range of 35-44 years of age (Tilastokeskus, 2007). Furthermore, official Finnish statistics report that Finns wish to have more living area. An ideal apartment of all age groups would be 114 square meters, on average 27 square meters more than in existing apartments. Also, elderly residents wish to have more space, on average 9 or 10 square meters more (Tilastokeskus, 2007).

Finnish citizens typically own their homes. At the end of 2008, over 60% of dwellings were owner-occupied and approximately 30% were rental dwellings. Less than 10% of dwellings have other tenure status (Statistics Finland, 2009). The Finnish housing market overheated from 1987 to 1989 and the prices of dwellings on average went up 72% during this period, but during the recession that followed the 'price bubble' the prices went down nearly 40% (Statistics Finland, 2010b). Furthermore, official statistics of Finland report that the prices of dwellings increased again in 1996 and rose to mid-2008, except for year 2001 when the prices temporarily went down. At the end of 2008, the prices of dwellings declined reflecting the impact of the global financial crisis (Statistics Finland, 2008c). The latest statistics show that after first

quarter of 2009 the prices of dwellings have risen rapidly, especially in metropolitan Helsinki, and are still rising in 2010 (Statistics Finland, 2010b).

In 2006, there were about 1,050,000 apartments in blocks of flats with at least three floors in a building. A total of 40% of these did not have a lift and 35% of people over 55 years of age living in blocks of flats did not have access to the use of a lift. The Finnish government appropriates grants for the installation and repair of lifts. Nowadays the grant is 50% of total costs. The amount of appropriated grants has been growing every year, and the number of lifts has been increasing. Nevertheless, only 400 new lifts were installed in 2006; however, the refurbishment of old lifts amounted to more than 550 installations in 2006 (Pekka *et al.*, 2008).

As the population is ageing, unsuitable dwellings and old housing stock create challenges for housing authorities and homebuilders; it also represents new business opportunities for investors who are interested in developing a housing market for senior citizens. Investors have possibilities to renovate the existing housing stock, develop new, purpose-built housing concepts for senior citizens and offer housing services, such as cleaning and meal services, or recreational services and activities.

2.3.1. Finnish rental housing market

Mainly Finnish rental apartments are owned by municipalities, national housing investors and private persons (KTI Property Information, 2010b). The total number of rental apartments in Finland was 824,164 in 2008 (Statistics Finland, 2009). In 2009, overall 2,900 conventional rental apartments were started to build and in 2010 nearly 7,000 rental apartments will be completed (ARA Asumisen rahoitus- ja kehittämiskeskus, 2010).

The Finnish rental apartment market was regulated and controlled by government until 1995 (Valtion asuntorahasto, 1999). The control began after the Second World War when Finland was facing a lack of apartments in bigger cities. ARAVA-law was established in the 1940s for assuring affordable 'ARAVA- the state housing loans' for families and housing corporations for building apartments. ARAVA-loan was meant to be a temporary fix for helping the house building process after the war when many Finns were facing poverty (Valtion asuntorahasto, 1999). However, the ARAVA-loan was closed down until 2007 (ARA Asumisen rahoitus- ja kehittämiskeskus, 2008b) and replaced by the interest subsidy loan.

Government subsidy is available for those investing in rental housing apartments. The interest subsidy loan provides several benefits to housing developers in providing a loan-to-value ratio of 95% of total investment cost rather than the traditional 70-80%. The loan covers construction and operation with interest only payments during construction and during the first year of operation, and then a repayment period of 40

years. Typical bank loan repayment periods are 20-25 years. This results in smaller annual instalments (Tyvimaa & Gibler, 2010a). The interest rate of the interest subsidy loan is more stable than bank loans; however for the last ten years interest levels have been so low that this has not been a significant benefit.

Also, a state grant from 10% to 50% (at the beginning of the programme the percentages were from 5% to 35%) of investment costs has been available for the past five years for housing and related service spaces for special groups, such as the elderly or disabled persons. To qualify, a housing provider must also maintain investment costs below a negotiated limit to ensure that the properties can be offered at rents suitable for low-income tenants. Overall, the grant was 85 million€ in 2008, and 110 million€ in years 2009 and 2010 (ARA Asumisen rahoitus- ja kehittämiskeskus, 2010).

In 2008, there were 824,164 rental apartments in Finland (Statistics Finland, 2009). About 50% of all rental apartments have some kind of government subsidy (KTI Property Information, 2010b), hence, they are owned by public housing investors or municipalities. According to KTI Property Information, approximately half of all Finnish rental apartments are owned by small investors, mainly private persons. Professional housing investors own some 150,000 – 200,000 rental apartments in Finland presenting less than a quarter of all rental apartments. Sato Corporation owns a total of some 23,000 rentable homes in Finland's largest centres of urban growth (Sato, 2010) and VVO Group PLC has about 38,000 rental and owner-occupier dwellings in more than 50 different municipalities in Finland (VVO, 2010).

The statistics of KTI Property Information show that municipalities own a large part of rental apartments in Finland. For example, the City of Helsinki, the capital of Finland, owns some 43,000 rental apartments. Currently, there is only one foreign housing investor in the Finnish housing market, WH-Asunnot, a subsidiary of Danish property-development company KE Project A/S (KTI Property Information, 2010b).

Rents are set by the market and mainly related to location and age of property. In government subsidized rental apartment buildings rents are set a cost recovery principle. This means that the rent must be based on real costs for example construction, financing and operational costs. Rent increases must be justified, for example, by increased operational costs. Most government subsidized rental apartment buildings are developed on ground leased from the municipality and this helps to keep costs down.

In every city, central locations are more expensive than suburb locations and also, Helsinki metropolitan area is more expensive than other areas in Finland. Figure 5 shows average rents (€/sqm/month) by geographical locations. 'ARAVA(sub.)' means government subsidized rental apartments and rents in these settings are 8.93 €/sqm/month overall (Tilastokeskus, 2010b). In the Helsinki metropolitan area, average rents in subsidized apartments are 10.09 €/sqm/month. According to official Finnish

statistics, the most affordable subsidized rental apartments are in Eastern Finland. Non-subsidized (privately financed) rental apartments charge higher rents, 10.07 €/sqm/month, on average overall in Finland. In the Helsinki metropolitan area, non-subsidized rents are 13.34 €/sqm/month. The most affordable non-subsidized rental apartments are in Northern Finland charging on average 8.67 €/sqm/month (Tilastokeskus, 2010b).

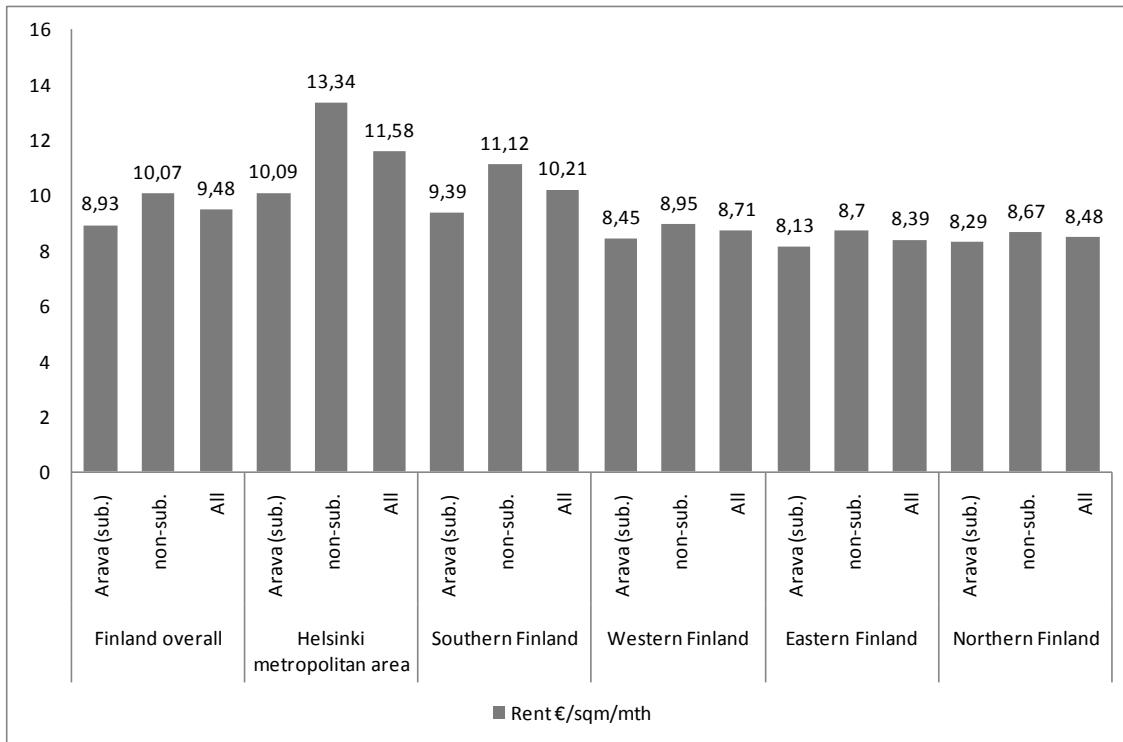


Figure 5. Average monthly rents in Finland and by geographic areas. ARAVA(sub.) means all government subsidized rental apartments and non-sub. means non-subsidized rental apartments, financed privately (Tilastokeskus, 2010b).

Rents include central heating for an apartment, but commonly a tenant needs to pay electricity, water, TV and internet fees separately. Home insurance always needs to be paid by a tenant. All operational costs and maintenance of common areas, management and marketing, insurance of property and capital costs are included to rents.

The scattered ownership affects the rental market resulting in great differences in market practices, rental levels and professionalism of players. In the first quarter of 2010, rents rose by 1.9% on average overall in Finland (Tilastokeskus, 2010b). Following official statistics of Finland, rents in non-subsidized rental apartments rose by 1.4% and rents in government subsidized apartments rose by 2.6% in unison. In the Helsinki metropolitan area, rents in non-subsidized apartments fell by 2.9% while in contrast, subsidized rents rose by 2.0% (Tilastokeskus, 2010b). Rents of studio type of apartments have risen strongly in recent years (KTI Property Information, 2010a). Overall, rent levels differ between areas and also, the financing method affects how rents are changing.

2.4. Housing alternatives for senior citizens in Finland

The history of senior housing in Finland is relatively short. Municipalities and foundations started to build apartments especially for elderly citizens in 1940-1970 (ARA Asumisen tutkimus- ja kehittämiskeskus, 2008b). Välikangas (2006) reports that mainly families took care of the elderly before the 1970s but legislation changed in the 1970s and 1980s and shifted the responsibility for the elderly to municipalities. First, elderly care was concentrated in nursing homes, but in the mid-1980s assisted living facilities started to be built (Välikangas, 2006). Independent living facilities, called senior houses in Finland, are relatively new housing type for seniors and have been become more common in last decade. The different housing alternatives are presented in the following sections.

2.4.1. Independent living facilities

An independent living facility (or community) for seniors is a housing arrangement for seniors who can live independently without the need of daily assistance. In Finland, independent living facilities are commonly called 'senior houses.' Senior houses represent a significant new business area in Finland. Senior houses are privately owned condominiums, rental apartments or right-of-occupancy housing for those 55 years of age or over. In the US, seniors can choose between different kinds of independent living options. Independent living options are, for example, age-segregated conventional apartments, such as active adult retirement communities or retirement villages (Golant, 1992). Congregate housing (group housing with residential care facilities) offers both independent and semi-independent options (Golant, 1992), the latter option typically offers housing and support services for residents (Brecht, 2002).

Usually, senior houses are built near public services and recreational areas. Senior houses are intended to be accessible, and should be suitable for moving around even with aids, such as walkers or wheelchairs. Some senior houses are furnished with hand rails, but most are designed so that railings are easy to install later. Technical safety installations, such as sprinklers, are installed in some senior houses too. Senior houses are more often medium-size (50-100 apartments), stand-alone multi-family houses, not large communities, such as senior villages in the US or Australia. Continuing care retirement communities (CCRC), which offer health care and housing services for elderly life, are not available in Finland. Some of senior houses are located next to assisted living units and senior residents may have a possibility to purchase services there.

Finnish independent living facilities can be classified into three types. According to Rasila *et al.* (2006) the first type is a normal apartment building with an age restriction without any special services. The second type has some service orientation. In these settings, services are available for tenants, but not included in the rent. Services can be

available in an assisted living unit next to an independent living community or there are private service operators that come to offer services. The buildings do not differ technically from conventional apartments. The third type of senior houses is the most advanced. There are different kinds of services available for residents depending on their individual needs (Rasila *et al.*, 2006).

Senior houses often offer activities at no extra fee. Some settings charge a small service fee for facilities and services such as a fitness room, activity staff and maintenance services. If health care, meal or cleaning services are offered; they are usually priced separately and offered by private service operators.

Also, cohousing for seniors is an independent living option. Cohousing is a community for people who want to live in a communal neighbourhood without sacrificing the privacy or integrity of individual families and their dwellings (Durrett, 2009). The concept of cohousing for senior citizens is similar, except greater emphasis is placed upon the promotion of active lifestyles and the prevention of loneliness through communal living (Bamford, 2005). The idea of cohousing in Finland has been relatively recent with the recognition of their potentiality only starting to emerge within the last 10 years (Özer-Kemppainen, 2006).

The first cohousing project for senior citizens in Finland commenced in the early 21st century and was led mainly by residents. The complex located in the City of Helsinki consists of 58 owner-occupied apartments and includes many common areas, including a library, a dining room, a fitness room, a roof-top terrace and a sauna. The residents have established and developed the society and the building by themselves, and they have their own association which selects residents. Also, all activities and some services are organized by the residents; therefore, residents do not need to pay any service fees. Since then, the success of the scheme has been widespread with other cohousing communities for senior citizens in the planning stage.

Rental senior houses and right-of-occupancy apartments are mainly owned by national housing providers, associations or non-profit corporations (Özer-Kemppainen, 2005). Right-of-occupancy housing is a mix of rental and owner-occupancy housing. A resident needs to pay 15% of investment cost when moving in and a maintenance charge every month. A maintenance charge is lower than a rent in an equivalent, conventional rental apartment and a resident has the same rights as in an owner-occupied apartment (Finlex, 2010). At the moment, there are only few right-of-occupancy apartments for seniors in Finland.

The national housing investors, such as VVO and Sato Corporation, develop both rental apartments in senior houses and condominiums for seniors. They target the apartments for senior aged 55 and over who can live independently and take care of themselves. The services offered vary; some cases are conventional apartments

designed to be an accessible living environment, some cases offer daily services for residents. At the moment, senior houses are mainly located in larger cities. The senior housing market is so recent in Finland that only larger cities have senior houses at the moment. In many smaller cities, there are no senior houses to date.

Another example of senior housing investors is non-profit foundations and associations. Often, a foundation has been established by a municipality and the mission of the foundation is to offer affordable rental apartments for seniors living in the municipality. For example, in the City of Tampere, the foundation established by the city owns 73% of all rental apartments for seniors at the moment (Tyvimaa & Gibler, 2010a).

Also some private companies have started to invest in senior houses. Often these companies already own assisted living facilities and they develop rental apartments for seniors next to an assisted living facility. Tenants in a senior house can use the services offered in an assisted living facility.

The rent level varies mainly with location, the amenities provided, and services offered for seniors. Rent for a basic level senior apartment (no extra services and amenities offered) is nearly the same as a rent for a conventional apartment. Rent for a highest quality senior apartment is generally about 10% more expensive than the rent for a conventional apartment (Tyvimaa & Gibler, 2010a). Low-income tenants may apply from KELA, The Social Insurance Institution of Finland, for a housing allowance.

The prices of condominiums only for seniors are set by the market and are higher than those for the conventional condominiums due to their better construction, including sprinklers, a safety telephone system and safety switch-offs which increase construction and investment costs. In addition, the location is often in the city centre and next to all daily services.

2.4.2. Assisted living facilities and institutional care

Responsibility to provide services for older people belongs to municipalities but the services can be provided in many alternative ways. The municipalities can provide the services alone or in co-operation with other municipalities, or services can be purchased, for example, from private service operators or non-profit organizations (Stakes, 2007).

Assisted living facilities, also called service housing or sheltered housing, do not have an official definition in Finland. Generally an assisted living facility means a rental apartment in a housing unit where some services are offered, residents have common areas and activities are organized (Andersson, 2007). Some assisted living facilities, offer services and staff only in the daytime. Housing type for seniors, who need daily assistance, is an assisted living unit with 24-hour assistance (Stakes, 2007) with services

and staff available 24 hours a day. Some municipalities also offer different kind of group homes for seniors, who need daily assistance. Usually group homes are located as a part of assisted living facilities and offer 24-hour assistance and care (ARA Asumisen rahoitus- ja kehittämiskeskus, 2008b).

Also institutional care takes on a number of different forms. Institutional care includes both nursing homes (also called residential home for older people) and inpatient care in health centres or hospitals (Stakes, 2007). According to Stakes, older people use an overwhelming part of inpatient care in health centres. In 2005, 93% of all long-term care recipients were 65 years of age or older.

Andersson (2007) defines a difference between assisted living facilities and nursing homes: a resident living in an assisted living unit is an independent person and able to make decisions. Nursing homes are like hospitals and usually a person is not able to take care of him/herself any more.

In Finland, the volume of institutional care units used to be one of the highest in Europe. However, with the existing trend to age-in-place and not in institutional units, municipalities have reduced nursing homes and replaced them with assisted living facilities. According to Stakes (2007), 15.4% of seniors 85 years of age or over stayed in nursing homes in 1995 and 5.8% stayed in assisted living units. In 2005, the numbers have switched with 10.4% of seniors 85 years of age or over staying in nursing homes. In assisted living units, there were 11.5% of seniors 85 years of age or over. The number of senior residents in nursing homes has reduced overall by about 25% in the last 15 years (Stakes, 2007). The share of elderly people living in assisted living units or in nursing homes are shown in Table 1.

Table 1. The shares of elderly people living in assisted living facilities or in nursing homes according to Stakes (2007) statistics.

RESIDENTS	Nursing homes				Assisted living			
	1990	1995	2000	2005	1990	1995	2000	2005
seniors 65+	3.8%	3.1%	2.7%	2.2%	information not available	1.9%	2.7%	3.0%
seniors 75+	7.8%	6.5%	5.3%	4.3%		3.4%	5.1%	5.4%
seniors 85+	19.1%	15.4%	12.6%	10.4%		5.8%	10.0%	11.5%

Assisted living facilities and nursing homes are, with some exceptions, supervised by the authorities. Consequently, the municipality grants social and health care services on the basis of an individual service needs assessment. The assessment is based on a medical opinion of a doctor or the decision of the SAS-board (board of briefing, estimation and relocation) of the municipality and the individual's own opinion (Özer-Kemppainen, 2006). The Finnish health and social care, including assisted living facilities and institutional care, is mainly covered by taxes. According to Stakes (2007), client and patient fees accounted for 9% of total costs in social and health services in

2005. Municipalities are free to decide on the amount of client fees within the limits of provisions concerning such fees. The fees are either fixed or depend on the client's ability to pay. Some services are defined as free of charge by law (Stakes, 2007).

Municipalities either provide services by themselves or they buy services from private housing service operators or non-profit organizations. In 2005, 88% of nursing home services were provided by municipalities, 10.5% by organizations and foundations, and only 1.5% by private companies. At the same time, 42% of assisted living services were provided by municipalities, 44% by organizations and foundations and 13% by private companies (Stakes, 2007). The residents pay a client fee fixed by one's income to the municipality. This means that most residents do not pay the real costs, because their income is so low. The gap between real costs and client fees is covered by a municipality.

Finland's Slot Machine Association, which is generally referred to as RAY, was established in 1938 to raise funds through gaming operations to support Finnish health and welfare organizations (RAY, 2010). At the end of 1980 and in 1990s over 400 assisted living buildings owned by associations or foundations and funded by ARAVA-loan or RAY were built in Finland (Andersson, 2007). Nowadays, the funding of RAY is almost closed down and a state grant for the elderly and the disabled has replaced RAY funding (ARA Asumisen tutkimus- ja kehittämiskeskus, 2008a).

When the population is getting older and the number of people in working life is decreasing, municipalities are faced with the problem that tax incomes do not cover all costs that social and health care causes. This problem has pushed municipalities to privatize elderly care and find new funding solutions.

3. RESEARCH PROBLEM AND OBJECTIVES

The research question underpinning this dissertation is “How to develop attractive and cost-effective senior houses in Finland?” This question is divided into three goals. First, Finnish seniors’ preferences need to be understood in order to develop retirement settings that will be attractive to seniors. Papers 1 and 2 focus on this goal. Paper 3 focuses on the second goal and is concerned with recreation areas which are at the core of retirement communities. Seniors’ experiences from social and physical environments are studied and connections between well-being and common areas are explored. The third goal studied in Paper 4 is that of investors’ insights and draws upon the perspectives of key players in the senior housing market in the City of Tampere, Finland. Hence, the study takes into consideration two viewpoints: senior residents’ preferences and the profitability of investments (Table 2).

Table 2. Papers and their themes, approaches, research questions and methods.

	Paper 1	Paper 2	Paper 3	Paper 4
Theme	Pull factors of Finnish seniors when relocating to a retirement home	Finnish seniors’ moving to a senior house: push and pull factors	Social and physical environments in senior houses	Senior housing operations in Finland/ key figures
Approach	Quantitative	Qualitative	Qualitative (Mixed methods)	Quantitative
Research question	What pull factors Finnish seniors have when choosing a retirement home?	What push and pull factors seniors have, when they relocate?	What kind of connections there are between social and physical environments?	Is the senior house a profitable investment for developers/investors?
Research method	Case study: 3 units in Finland	Case study: 3 units in Finland	Case study: 2 units in Finland	Case study: 10 units in Tampere
Data collection method	Questionnaire	Interviews (residents in senior houses)	Questionnaire and interview (residents in senior houses)	Interviews and questionnaire (investors)
Data analysing method	Factor analysis / ANOVA	Content analysis	Content analysis	Statistical analysis/content analysis

In Finland, senior houses are not registered and as a consequence there is no accurate data on the number of senior rental apartments or information on their locations. Senior houses are considered of equal status to all other apartment buildings and have no special classification. This makes it challenging to invest in new developments firstly because the number or types of existing senior houses are not available. Secondly, no government agency, professional organization or real estate research company is gathering public information on operations or financial return. The

lack of data complicates the decision making of investors and also makes it more difficult for seniors to find suitable retirement communities. The lack of an official database led to the adoption of a case study approach in this dissertation.

3.1. Identification of seniors' housing preferences

3.1.1. Seniors choosing a retirement home – *push-pull framework*

Little is known about residents' decisions to move to senior houses in Finland. Some government reports have been published but no international studies are available. This study focuses on push-pull factors which influence the relocation decision of seniors. Push factors are those that create dissatisfaction for an individual or household with their current home while and pull factors attract people to relocate to a new destination (Golledge & Stimson, 1997). Many studies have defined a theory of push-pull factors. The origins of which extend to the 1920s and 1930s and Pavlov's (1927) reinforcement theory and Skinner's (1938) stimulus-response theory and later Bogue's (1969) study of the push-pull theory. General push factors for all people are the loss of employment and decline of income, natural catastrophes, and political or ethnic reasons. Pull factors mentioned by Bogue (1969) are better career opportunities in another location, preferable environment, such as climate or schools, and social or physical activities.

Generally, young adults are the most mobile members of the population and a willingness to relocate declines after the age of 25 whereas after 65 years it increases again particularly for female individuals (Golledge & Stimson, 1997). Studies in the US have discovered that the elderly who are more likely to relocate either are homeowners who feel that the maintenance of their own house is too expensive and takes too much time or those who have a fear of crime, difficulties with their neighbourhood or dissatisfaction with neighbourhood facilities (Golant, 1984; Wiseman, 1987). In contrast, the willingness to age-in-place is strong mainly because of social and psychological factors that tie old people to their homes, a familiar neighbourhood, friends and family and also reasons such as low income, poor health and perceptions that more suitable housing is not available (Golledge & Stimson, 1997).

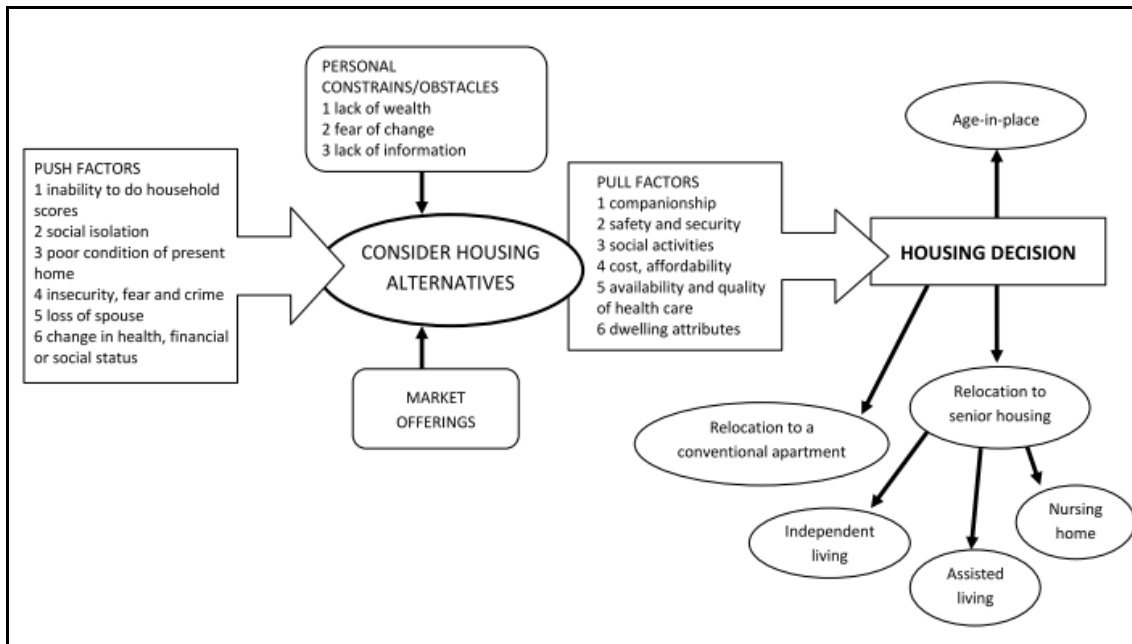


Figure 6. Factors and other circumstances in a push-pull model affecting seniors' decision making process (Tyvimaa & Gibler, 2010b).

The push-pull framework can be used to model a residential relocation decision making process. The model comprises a range of socioeconomic, lifestyle and local attributes, some of which push people away from their current homes and others that pull people to a specific home, as shown in Figure 6 (Tyvimaa & Gibler, 2010b). Also, personal circumstances and market offerings affect the process. If a senior decides to relocate, another decision making process is considering among the housing options which are offered. The Finnish senior housing market is a remarkably new business area and this leads to a situation in which seniors do not really have choices when they are making decisions for relocation. More often the decision is made between 'age-in-place' and relocation to a purpose-built senior house. Seniors can seldom choose between different kinds of senior houses because so few senior houses are available.

However, reasons for moving cannot be explained only within macro level studies in which the focus flows between origins and destinations. It is necessary to study the decision making process of individuals by using the research methods, which focus on opinions and attributes behind the decision making process (Golledge & Stimson, 1997). Therefore, the main objective of this part of study is to find out the preferences of Finnish seniors and compare the results of international studies and ascertain if Finnish findings are similar or divergent from international findings.

3.1.2. Social and physical environments in senior houses

The second goal of the study was to explore the meaning of social and physical environments for seniors and their social lives. The role of a social and active lifestyle is fundamental in the pursuance of a high quality of life for many elderly people. Previous

research demonstrates that lifestyle dynamism can reduce levels of social isolation and mortality and people having strong social relations have a better possibility of survival after illness (Due *et al.*, 1999). However, the pursuits of such lifestyles can conflict with the desire of many senior citizens to age-in-place and maintain their independence (Rowe & Kahn, 1999). In turn, this can lead to relative isolation and loneliness amongst the elderly and in many cases has been non-conducive to facilitating social and active wellbeing.

Research conducted on the quality of life of Finnish seniors found out that 39.4% of Finns aged 75 or above felt a sense of loneliness which was consequently inhibiting their social interaction (Routasalo *et al.*, 2006). Earlier international studies identified similar results, with Holmén *et al.* (1992) demonstrating that the level of perceived loneliness in senior citizens in Sweden was approximately 35%. This research identified variables influencing loneliness including widowhood, living alone and poor subjective health, which in turn restricts the ability to be more active socially.

It is obvious that social environment is an important part of seniors' living environment. This part of study aims to encourage investors to develop and build common areas, and at the same time, connect residents with each other. Many seniors want to live an active life and are looking for activities or even want to organize them. However, some seniors need to be activated by staff who have the experience of working with seniors.

3.2. Conceptualization of Finnish senior housing market

The third goal of the study focuses on the Finnish senior housing market. Very few investors have a strategy to develop a certain number of senior houses per year, and few senior housing concepts or brands have been developed. A decision to invest into senior house is mainly made case by case. Investors have experiences with the development and operation of conventional apartments and the risk-reward structure of this segment of the housing market. However, most investors have either limited or no experience in the senior housing market.

No government agency or real estate company is gathering data on the senior housing market. Thus, developers and operators are making investment decisions based on limited information about development and operational costs, tenant preferences, price elasticity and other market characteristics. This part of study focuses on these key figures and observes the weaknesses and advantages of the Finnish senior housing market. The study helps investors and developers to see the market en bloc, explore their own weaknesses and provide the opportunity to develop the business.

Usually, there are few common areas or amenities in conventional rental buildings in Finland. Senior houses usually offer some amenities and common areas for residents

such as a library, a fitness room or multi-purpose rooms. Common areas vary case by case and there are no suggestions on which common areas should be available. Some housing operators offer on-site services free of charge or they have a small service fee for services. All these extras increase the investment costs as well as operational costs of seniors' housing settings. Investors may have the possibility to charge higher rents for senior houses than those obtained in conventional rental apartments. In that case investors must develop living environments which offer added value for senior residents and attract them to choose a senior house and relocate. Also, with higher rents there is the risk that leasing is slower and vacancy rates decrease the return. All these attributes need to be taken into account when planning to invest to senior houses.

This part of the study increases the knowledge of senior houses as an investment object. It explores the Finnish senior housing market focusing on some key figures and typical features of the market. Some figures are compared with the US senior housing market which offers a wider spectrum of housing opportunities for senior citizens.

4. RESEARCH METHODOLOGIES

4.1. Research approach

The actual choice of research approach in any study depends on the nature of the research problem as well as on the objectives set. According to Robson (2002), the purpose of a study can be divided into exploratory, explanatory, emancipatory or descriptive approaches. In the exploratory approach not well understood phenomena are investigated and identified to important categories of meanings whereas the explanatory approach explains the patterns related to the phenomenon in question (Marshall & Rossman, 2006). Emancipatory approach creates opportunities and the will to engage in social action (Robson, 2002). Descriptive research requires extensive previous knowledge of the situations or events to be described, so that it is possible to know appropriate aspects when gathering data. Robson (2002) concludes that the descriptive purpose of the research is to portray a profile of persons, events or situations. This dissertation is descriptive and aims to describe senior citizens' housing situations and to understand residents' decision making processes and those activities which are important in their lives.

The study follows an abductive research approach; hence it is neither entirely inductive nor entirely deductive. Abductive inference explores across logically distinct domains, from one kind of facts to another kind of facts (Krippendorff, 2004). This study compares earlier studies and theories, and analyzes different kinds of data. The goal of the study is to understand individuals' experiences and behaviour. The nature of content analysis is abductive in that it connects empirical findings and applies common knowledge in the context of established facts (Krippendorff, 2004). Krippendorff describes content analysis as having a position where phenomena are not directly observable and researchers are often use a mixture of statistical knowledge, theory, experience and intuition to answer their research questions.

Other inference approaches are deductive, inductive, and retroductive (Blaikie, 2000). Deductive inference is in contrast to inductive inference. In deductive inference data is analyzed according to an existing theory or framework (Patton, 2002). Inductive inference means that the researcher approaches a theory via observations and findings (Krippendorff, 2004). Also, retroductive strategy begins with a theory, but it is followed by the construction of a hypothetical model of a mechanism (Bryman, 2008).

This dissertation includes both quantitative and qualitative methods and fits the description of a mixed methods approach. As Creswell (2009) outlines mixed methods

research collects and analyzes both kinds of data: quantitative and qualitative. The mixed-method approach involves both so that the overall strength of a study is greater than either approach alone. Bryman (2008) outlines that mixed method research can be simply a combination of two research methods. However, he points out that research methods should be combined across the two research strategies: quantitative and qualitative. The methods should mix, not just be used in tandem. The history of the mixed methods goes back to 1959 when Campbell and Fisk used multi-methods in their psychological study (Creswell, 2009).

A qualitative strategy is often referred to as a flexible design strategy, allowing evolution in design strategy during data collection (Robson, 2002). Robson describes the characteristics of flexible design as follows: multiple data collection techniques are used, data is in non-numerical form, data are analysed using multiple levels of abstraction and writing is clearly telling findings believably and realistically. Following Robson (2002), the three design traditions within flexible design research are grounded theory, ethnography and case study. This study uses multiple case studies during the data collection.

4.2. Process of the study

The research process was started on autumn 2008. The first stage was to collect information on Finnish independent living facilities and communities for senior residents. When a representative list of cases was available, these were classified into three groups: conventional apartment buildings, basic senior houses without services, service-rich housing environments and cohousing settings for seniors. From each group, one case was selected. Residents' surveys were mailed to the selected cases and when the responses were received, interviews were conducted in three cases.

The study investigating senior houses' financial performances was started in summer 2009. The City of Tampere was selected to be the case city because the authorities in the City of Tampere gather information about the senior house market every year and therefore, the number and locations of senior houses were available. Also, Tampere represents an industrial and developing city in Finland having a rich selection of housing options and heterogenic group of senior citizens. Three main senior house investors were selected as part of the case study. The investors own about 95% of all rental apartments for seniors in Tampere. The quantitative data was gathered and the representatives of the investors were interviewed.

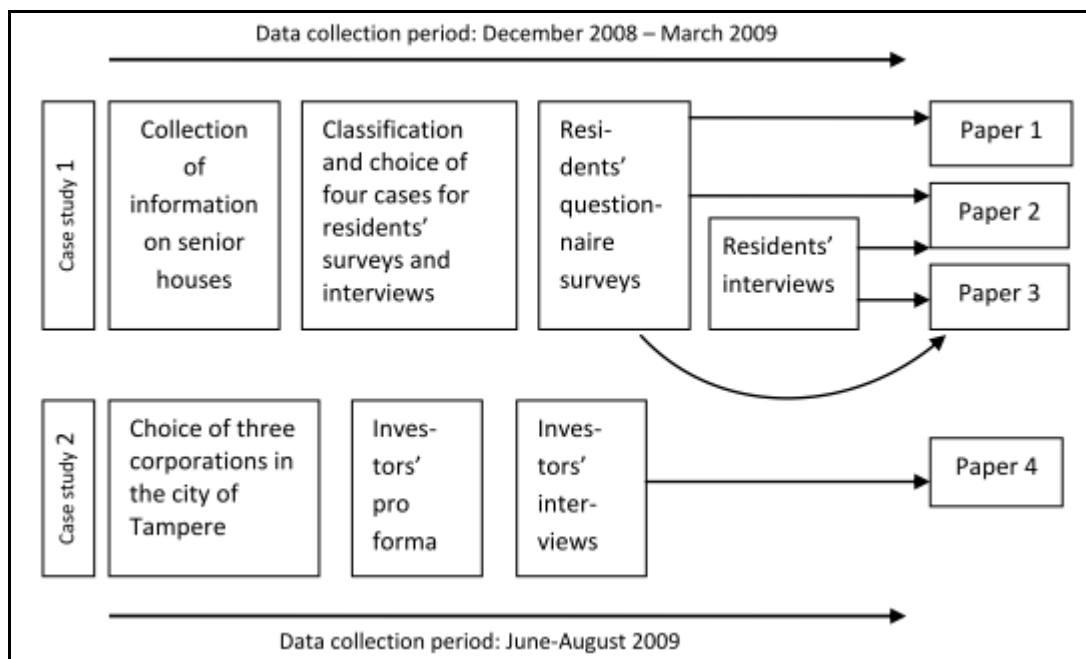


Figure 7. The process of the study and the connections between each paper and the collected data.

Figure 7 illustrates the process of the study and the connections between each paper and the collected data. Each of the four papers has its own goals, purposes and research methodologies. The same data was used in many papers but it was analyzed in different ways.

4.3. Case studies

Yin (2009) described that a case study can be used in evaluating research to explain the presumed situations and contexts in real-life. A case study can be used to illustrate and enlighten certain topics and situations. Both quantitative and qualitative data can be used and analyzed by various research methods in the course of a case study approach. The data collection techniques in case studies usually include multiple ways to gather data, for example observations, interviews, documents and reports (Creswell, 2007).

This dissertation includes two multi-case studies. Case study 1 focuses on residents' preferences and the interviews and the surveys that were conducted in the four developments. Case study 2 focuses on the financial operations of senior houses, the data was gathered by interviewing investors and conducting a pro forma in three corporations.

4.3.1. Case study 1: Residents' preferences

Residents' surveys were carried out in four developments and interviews were conducted in three developments. The developments at which residents' preferences were studied were selected to represent different kinds of housing alternatives for senior

residents. The heterogeneity of the cases provided an opportunity to find seniors who have different kinds of backgrounds and preferences.

The developments represent residential properties within rental apartments (cases 1 and 3) and owner-occupied property (cases 2 and 4) (Table 3). The financing of the developments differ; rental apartments have a government subsidy whereas owner-occupied apartments are funded by private loans and residents' assets. Also, the developments target different customers. In the government subsidized apartments low-income and homeless households have priority, in contrast, the condominiums are available for purchasing to anyone aged 55 years of age or over.

The developments are located in the different cities in Finland. Helsinki (case 2) is the capital of Finland with 576,632 citizens, with 27% of the city's population 55 years of age or older in 2008. Tampere (case 1) is third largest city in Finland with a population of 209,552 in 2008; 29% of which were 55 years of age or older. Lahti (case 3) has a population of 100,080 with 34%, aged 55 or older and Hämeenlinna (case 4), the smallest city included in the research, with 66,131 citizens, 35% of who were 55 years of age or older in 2008 (Statistics Finland, 2010a).

The developments were selected as they are the main options for senior citizens in Finland. The service rich housing environment represented by Kotosalla (case 1) is coming more common, this type of senior houses are developed and owned by housing corporations, associations and foundations. Many seniors who need some assistance but do not need to live in an assisted living unit prefer this type of alternative. Cohousing for seniors, Loppukiri, (case 2) is not a common housing type in Finland yet, but was selected for the study as it is a popular housing type in some Nordic countries. Hakatornit (case 3) is not exclusively a senior house type but very common for seniors in Finland. According to Poutanen *et al.* (2008) 17% of seniors aged 75-79 years of age and 12% of seniors aged 80-95 years of age live in government subsidized rental apartments. Case 4, Keinusaari, is a typical senior house developed by homebuilders. The location of this scheme is good and accessibility has been the main issue in a design phase. Services are not offered but residents need to find services in the neighbourhoods.

Case 1, Kotosalla, is a rental apartment complex in the City of Tampere. The complex contains 200 apartments, but only 161 apartments were occupied at the time of the study. The building is located in a suburb with commercial and public services. In addition, public transportation to the city centre is very good. Maintenance and activity staff are available during weekdays. All apartments are designed for elderly residents (no doorsteps, for example) and have air-conditioning. Some apartments have their own sauna and a balcony. All residents may use public saunas in the complex. The common area contains a restaurant, multi-purpose rooms and a fitness room/gym. Some areas can be used free-of-charge, but, for example, there is a low fee for using the gym and the

restaurant offers low-budget meals for the residents. In addition, there is an attractive patio for the residents. This development would be considered a service rich environment in Finland. The case represents a development funded by a government's interest subsidy loan and some common areas also have received a state grant.

Case 2, Loppukiri, is a unique cohousing for seniors in the City of Helsinki. The unit is not located in the city centre but public transportation is very good. Loppukiri consists of 58 condominiums and many common areas, including a library, dining room, fitness room, roof-top terrace and sauna. The residents developed the building themselves, and all activities and some services are organized by residents. Loppukiri's apartments are modern and have a sea view. There are no individual saunas but residents have access to a sauna located on the top floor of the building. There are no formal services offered in Loppukiri though residents can cook together and organize many kinds of activity groups. The financing of this case is typical of private financing where residents own their apartments and may have an individual bank loan or a housing association loan.

Case 3, Hakatornit, is an ordinary rental apartment block located in the City of Lahti. It is an older building that was renovated between 2000 and 2005. There are 338 apartments in the development. Senior applicants are given priority when residents are chosen. In this case study, 242 households contain at least one person of 50 years of age with in total 71% of residents 50 years of age or older. Common use areas include a gym, a library, a sewing room, a workshop and clubrooms. The owner of the property funds activities organized by the residents, including an exercise group, darts and billiards, a quiz and a poetry group. Fee-for-service arrangements include massage treatments. The tenants organize excursions to theatres and tourist attractions. The development is located very near the city centre with public and commercial services close by. This case has been funded by ARAVA-loan.

Case 4, Keinusaari, consists of two owner-occupied blocks of flats for seniors in the City of Hämeenlinna. In total there are 53 apartments. Only 38 were occupied at the time of the study. The setting is located next to the city centre and next to an assisted living facility, which offers some health care services and a restaurant. The apartments are condominiums and there are no services or special amenities for seniors. The idea of the condominiums for seniors is to offer independent living apartments near the assisted living facility. The services are in the next block, but residents can live independently. The financing of this case is a typical private financing where residents own their apartments and have an individual bank loan or a housing association loan.

4.3.2. Case study 2: A senior house as an investment

In Paper 4, data were gathered on ten different properties in the City of Tampere. These cases were owned by three different housing investors (Company 1, Company 2 and

Foundation 1) which own about 95% of all rental apartments for seniors in the City of Tampere. The selected ten properties were constructed between 1999 and 2008 and are blocks of flats. The data contain a total of 421 units representing 22% of the rental senior apartments in Tampere. The properties were selected to present similar cases. The limited geographic scope of the study can restrict the generalizability of the study but gives a general view of senior housing market in a relatively large Finnish city.

Company 1 (owns the properties 1, 2, 3 and 4) is a publicly listed, national provider of housing. It first developed senior houses more than 10 years ago. By 2008, it owned about 900 senior apartments in Finland and 111 in Tampere. Company 1 has four rental seniors housing properties in Tampere. These small suburban apartments are built without any special aids or safety installations, but they do have some extras, such as balconies, a laundry in one development, a workshop in another, and common areas. There are no on-site staff. Three of the buildings (Cases 1, 2, and 3) are located next to assisted living facilities where these seniors have access to services.

Company 2 (owns the properties 5, 6, 7 and 8) is a housing corporation that develops, manages, and owns properties in the City of Tampere and Western Finland. Municipalities own the company; however, it is operated as a for-profit entity. The corporation and its sister companies have developed senior houses in conjunction with a non-profit organisation for eight years. Company 2 has developed about 400 rental apartments and condominiums for seniors in Tampere. The apartments for seniors of Company 2 are located in blocks of flats that form a complex in a relatively new suburb, but each is run as an economically independent building. All the units were completed between 2007 and 2008.

Foundation 1 (owns the properties 9 and 10) is a non-profit organization that offers rental apartments for elderly and retired persons. It operates approximately 21 buildings containing 1,400 units or 73% of all senior rentals in Tampere. The two properties owned by the non-profit foundation were selected for this study because they are of similar age as the for-profit buildings. One of the cases comprises a two-building complex located in the city centre and the other is a three-building complex located about five kilometres from the city centre. The properties offer few common areas. The individual units each have a sauna and balcony. Both complexes have activity staff members available on the property.

4.4. Data collection and sample

The response rates of the mailed, residents' surveys were good. In owner-occupied cases the combined response rate was 58%; twenty-two of the 38 surveys mailed to Keinusaari (case 4 in Table 3) and 34 of the 58 mailed to Loppukiri (case 2) were returned. Kotosalla (case 1) had a response rate of 40% where 64 of the 161 surveys

were returned. Hakatornit (case 3), the development with the most apartments, had a response rate was 25%.

Table 3. Information from the collected data, samples, response rates and the number of interviewed respondents. The figure tells in which paper certain data was used.

				Data used in followed papers				
				Paper 1	Paper 2	Paper 3	Paper 4	Summary
Questionnaire Surveys to Residents	Sample	Respondents	Response rate					
Case 1 Kotosalla	161	64	40 %	X	X			
Case 2 Loppukiri	58	34	59 %	X	X			
Case 3 Hakatornit	242	61	25 %	X				
Case 4 Keinusaari	38	22	58 %		X	X		
Interviews to Residents								
	Sample							
Case 1 Kotosalla	8				X*	X*		
Case 2 Loppukiri	7				X	X		
Case 3 Hakatornit	8							
Questionnaire Surveys to Companies' Representatives								
	Respondents	Core business						
Company 1: National provider of housing service	1	housing					X	
Company 2: Housing corporation	1	housing					X	
Foundation 1: Non-profit organization	1	housing					X	
Interviews to Companies' Representatives								
	Respondents	Core business						
Company 1: National provider of housing service	4	housing					X	
Company 2: Housing corporation	2	housing					X	
Foundation 1: Non-profit organization	2	housing					X	
National provider of housing services	1	housing						X
National provider of housing services	1	housing						X*
Institutional investor	1	insurance, fund and asset management						X*
Institutional investor	1	insurance, fund and asset management						X*
Institutional investor	1	insurance, fund and asset management						X*
REIT	1	real estate fund business						X

* some of interviews was made by someone else than the author of this dissertation.

Table 3 summarises the collected data. The number of mailed residents' questionnaires (sample) and the response rates of surveys are provided.

4.4.1. Questionnaire survey to residents (case study 1)

A questionnaire was chosen as a data collection method although it is recognised that surveys have some disadvantages and advantages. Disadvantages are, for example, misunderstandings or that respondents do not take the survey seriously (Robson, 2002). It is possible that respondents do not answer what they think or believe, but they answer what they assume the survey wants them to answer. Advantages are the possibility to collect a large quantity of data which can be generalized. Anonymity also can encourage respondents to reveal sensitive and personal issues (Robson, 2002).

Questions were designed to be simple and were critically reviewed within the researcher group. It was decided to use 4-point Likert scale in which a respondent cannot choose to answer 'no opinion.' Respondents also had the possibility to answer in their own words if they wanted, but this was not necessary for the data collection. At the end of the survey, respondents were asked for a permission to be interviewed at a later date.

The questionnaire surveys were carried out between December 2008 and January 2009 in three developments. The surveys obtained information about the residents' backgrounds, apartment attributes, the community's social environment, the services offered in the building and neighbourhood, and the decision-making process about moving into the apartment. Also, respondents were asked for a permission to be interviewed at a later date (see Appendix 1).

In case 4, the questionnaire survey was carried out in March 2009, there were a total of 38 mailed surveys. The survey was in part different to the other cases and included both multiple choice questions and open-ended questions (see Appendix 2). The multiple choice questions were the same as the other cases including the questions on the residents' backgrounds, apartment attributes, and social and physical environments in the community. The open-ended questions sought to establish in more detail reasons to move and the decision-making process of senior residents. The questions were, for example, "Why did you move in Keinusaari?" or "On what grounds did you choose this apartment?"

4.4.2. Residents' interviews (case study 1)

In-depth interviews were also undertaken in an attempt to understand experiences and reasons underlying decisions. According to Seidman (2006) the interview is a way to listen to other people's stories. The interviews were prepared based on the earlier questionnaire surveys which enabled the interviewer to become acquainted with the properties and their environments thereby facilitating responses.

An interview is a very flexible way of finding out things with an interviewer having the possibility of modifying and following up interesting responses and motives. Also, it is possible to observe the behaviour of a respondent (Robson, 2002). The advantages of interviews are, for example, a flexible way to ask questions and repeat them if needed (Heikkilä, 2005). The main limitation is often the price of interviews because interviews take time from preparations to the actual interview (Hirsjärvi *et al.*, 2007), and also, more interviewers are often needed.

Twenty-three in-depth qualitative interviews were conducted between January and February 2009. The interviewees were chosen from those who expressed an interest in being interviewed in the questionnaire survey and then selected by using a stratified

sampling. In stratified sampling, the basic sample is divided into groups, and from every group a small sample is selected with reference to different sub-groups such as gender, age or race (Heikkilä, 2005). The advantage of stratified sampling is that it ensures that the resulting sample is distributed in the same way as the population of the sample (Bryman, 2008). In this study, the sample was divided into smaller samples based on demographic features, such as age and gender with residents randomly selected from smaller sub-samples. Interviews, 23 in total, were conducted until saturation was reached.

The themes (Appendix 3) in residents' interviews included reasons for choosing the existing apartment, plans to move out and using services. General opinions on the apartment and community were asked as well. All interviewees were interviewed anonymously and were carried out on the basis that the data would only be used for academic purposes. All interviews were recorded and transcribed verbatim by a transcriber in order to avoid misunderstandings between researchers. Typically each interview lasted for one to two hours. All responses were in Finnish and some citations have been translated into English by a certified English translator in the Tampere University of Technology.

4.4.3. Investors' interviews (case study 2)

The investors' interviews were conducted in three housing corporations. Before the interviews, the corporations were asked to complete a pro forma and sought key information on housing investment namely turnover rates, vacancy rates and all costs, such as operation and investment costs. In addition, investors were asked to describe the services and amenities of the properties and give statistical information on the properties such as lists of apartments, average sizes and the construction year. The data contains a total of 421 apartments, representing 22% of the rental senior apartments in Tampere.

Three in-depth, face-to-face interviews with eight representatives from three corporations (marketing managers, property managers and administrative managers) were conducted in August 2009. The interviews augmented the data gathered by the pro forma and included questions concerning vacancy rates or problems with first-time leasing. These questions helped to establish views of investors and an understanding of the housing market. All interviews were carried out in Finnish, recorded and transcribed verbatim. Typically each interview lasted for one to two hours.

4.5. Data analysis

4.5.1. Qualitative analysis

Qualitative research analysis aims to solve social and human problems of individuals or groups (Creswell, 2007). Qualitative research allows researchers to get at the inner

experience of respondents, to determine how meanings are formed and how these are influenced by culture. Qualitative analysis discovers rather than tests variables (Corbin & Strauss, 2008).

When conducting qualitative analysis, the first step is to read material from the beginning to the end (Corbin & Strauss, 2008). Corbin & Strauss point out that the coding required to support such analysis should be started after the first interview because the first data serves as a foundation for further data collection and analysis. In the analysis contained within this dissertation, the data were coded and analyzed during the data collection process. It is recommended to undertake early analysis (Miles & Huberman, 1994), as feedback from initial analysis can help a field-worker to collect new and often better data.

Qualitative data from the interviews and the surveys in Papers 2 and 3 were analyzed based on the principles of content analysis. Weber (1990) considers that content analysis can be used, for example, in coding open-ended questions included in surveys or describing behavioural responses to communications. A central idea in content analysis is to classify words, phrases or other units of texts into the categories. Content analysis can be used both in quantitative and qualitative analysis (Krippendorff, 2004).

In Paper 2, Creswell's (2009) multi-step analysis was used to categorize the interviews and the answers of the open-ended questions from the survey conducted in Keinusaari. This method was selected to organize different themes and opinions of interviewees. The steps help to code the data and find themes and descriptions for residents' opinions.

In Paper 3, qualitative findings were compared with the findings of the quantitative questionnaire survey. The results were analyzed by qualitative methods (content analysis) but the results of the survey were added to confirm qualitative results. In some cases, the survey findings strengthen the findings from the interviews, but also, some contradictions were found.

4.5.2. Quantitative analysis

The multi-choice questionnaire survey responses presented in Paper 1 analysed pull factors using a Wilcoxon signed rank test, an ANOVA F-test and factor analysis. The mean scores for services and amenities between communities were compared using an ANOVA F-test to determine if the same pull factors are equally important across the communities. A Wilcoxon signed rank test was used to identify where the significant breaks occur between the scores and attractors of similar importance.

Factor analysis was used to analyze the pull factors of residents by identifying attributes behind the phenomenon and decrease the number of variables (Heikkilä,

2005). In this paper, the analysis was used to determine whether the attractors could be combined into a small number of pull factors (or attractors). Three factors (service packages) were extracted from the analysis, these accounted for 68% of the variance among these items. The factor scores were also compared among residents at each location by means of an ANOVA F-test to determine if the residents at each location place similar importance on the service packages. Socio-economic groups were also compared by using ANOVA F-test.

5. RESULTS OF THE STUDY

This chapter presents a number of the results and provides further discussion. Connections between the next sections of this chapter, the research questions posed, the published papers and the data utilized are presented in Table 4.

Table 4. Connections between the sections, the research goals, the papers and the data utilized.

Section	Research goal	Paper	Utilized data
5.1.1.	Housing preferences of Finnish seniors	Paper 2	residents' in-depth interviews, residents' questionnaires
5.1.2.	Housing preferences of Finnish seniors	Paper 1	residents' questionnaires
5.2.	Service packages	Paper 1	residents' questionnaires
5.3.	Connections between social and physical environments	Paper 3	residents' in-depth interviews, residents' questionnaires
5.4.	Key figures of senior housing market in Finland	Paper 4	investors' questionnaires, investors' interviews

The first goal of the study was to find out housing preferences of Finnish seniors and compare the findings with international studies and also with a few Finnish studies published previously. In Papers 1 and 2, seniors' preferences are studied, using both quantitative and qualitative data. In later sections, these findings are discussed and compared.

The second goal of the study was to explore the meaning of social and physical environments for seniors and their social lives. The purpose of the study was to find connections between social and physical environments and to encourage investors to invest in common areas in senior houses. This goal is studied in Paper 3.

The third goal was to explore the Finnish senior housing market from a critical perspective focusing on both weaknesses and strengths and advantages of investing in the senior housing market. The key figures and typical features of the Finnish senior housing market are studied in Paper 4. The features and findings from the senior housing market in Finland are compared with the US senior housing market which is more mature and offers a wider spectrum of housing opportunities for seniors.

5.1. Preferences of Finnish seniors

5.1.1. Qualitative analysis

Push and pull factors based on qualitative analysis were categorised into six groups on the basis of specific themes. The push factor groups are community environment, physical environment and personal circumstances; the pull factors were community environment, physical environment and social environment. The groups are shown in Figure 8.

Factors pushing seniors away from their current living environment to retirement communities include unsafe neighbourhood and lack of services. The lack of services was a common push factor for all seniors. Push factors related to former home were named Physical Environment and included heavy housework and the need for renovation. It appeared that these were often the most common push factors in the decision to relocate. Another group included personal circumstances, consisting of social isolation, status of health and need for assistance. Push factors relating to health status were relatively common reasons to relocate especially for seniors who chose a retirement community offering health care services.

Those factors which pull seniors to new homes have some overlaps with push factors. Community environment related pull factors include location, access to services and public transportation. All these pulls overlap with the lack of services highlighting seniors' need of everyday services. Pulls relating to physical environment are easy living and purpose-built housing environment. Furthermore, the pulls overlap with a need for renovation and confirm the fact that seniors are living in old houses and apartments. Social environment includes pulls such as a new lifestyle, activities and age homogeneity. This finding parallels with other work (for example Kim *et al.*, 2003; Stimson & McCrea, 2004) stating that seniors choose their retirement location so that they can maintain their existing lifestyle or find new activities and a new lifestyle. When Finnish seniors talked about activities they highlighted outdoor sports, fitness centres and different kinds of clubs. Also, cultural activities such as theatres and concerts were important for seniors.

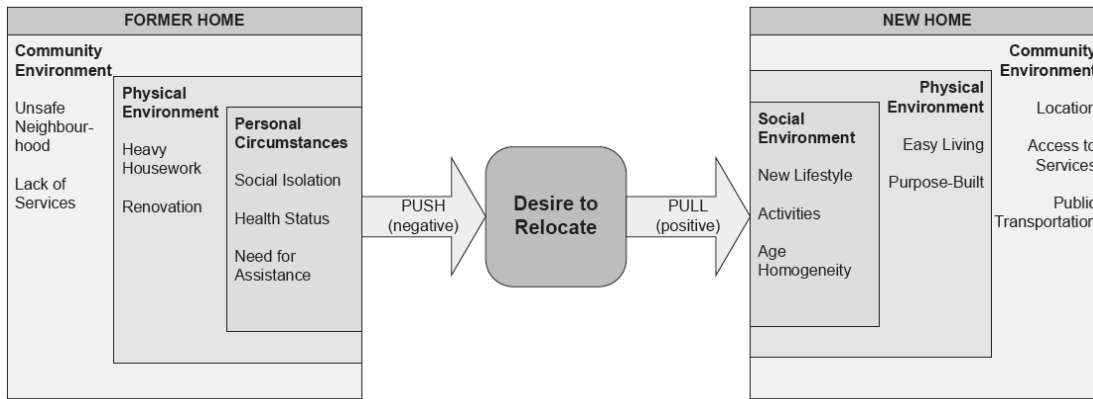


Figure 8. All push and pull factors based on qualitative analysis grouped by theme. The push factors are reasons that push people away from their existing home. The pull factors pull people to a new home (Tyvimaa & Kemp, 2010).

The results of this part of study are consistent with those found in other research. Earlier studies indicated heavy housework and a need for renovation being common push factors for seniors (for example Gibler *et al.*, 1998; Moschis *et al.*, 2003; Erickson *et al.*, 2006). Respondents in all three cases identified the inability or unwillingness to do housework or a need for renovation to be common push factors. This is understandable in that elderly Finnish persons often live in older apartments, built between 1940 and 1970 (Välikangas, 2006). Also, easy living as a pull factor was related with maintenance works at home with many seniors reporting that living without a burden of maintenance is ‘easy living.’ These pushes reflect seniors’ desire to relocate to an environment which can physically support ageing in place.

5.1.2. Quantitative analysis

The residents’ questionnaire in three of the selected cases contained 13 items relating to reasons for choosing and moving to senior housing. The items included neighbourhood location factors identified as important in previous research (location relative to grocery shop, hospital or health centre and public transportation) as well as recreational facilities (fitness centre or swimming pool, activity centre, and outdoor sports facilities) and beauty services. Also, some common on-site services were included from previous research namely meals, health services and activity staff, social activities (resident organized activities and activity clubs) as well as an on-site fitness centre.

The mean importance of each attribute was calculated and then ranked by the mean importance score. The mean scores were compared among the three communities to determine if the same attractors are equally important across locations using an ANOVA F-test and to examine the relative rankings by residents at each location. A Wilcoxon signed test of the equality of each pair of importance scores was undertaken to identify where the significant breaks occur between the scores and attractors of similar importance. The overall mean importance score of the attribute ranked number 1

was compared to the mean importance score of the attribute ranked number 2. Then the mean score for number 2 was compared to the mean score for number 3, and the process repeated for each pair of mean scores in rank order.

Overall, a grocery shop nearby was the most important attribute to attract seniors when choosing a retirement location. Services, such as a health centre and public transportation, were the next in importance. On-site fitness centre was the most important service and amenity in the community. Seniors ranked this as the sixth most important pull factor. All of the cases have an on-site fitness room. Meal service, activity clubs in a community, on-site staff and health care services offered in the community were ranked as being of less importance. Activities nearby a community, such as swimming pool and outdoor sport facilities, were more important attributes than on-site activities and clubs.

The Wilcoxon signed rank tests compared each pair of attributes in rank order and identified four groups of attributes based on their relative importance. The most important pull factor, having a grocery nearby, has a significantly higher mean importance score, placing it in a category by itself. Evidently, this is the critical location factor in choosing an independent senior house for the residents of these three properties. The average importance scores of location near a hospital or health centre, public transportation, and outdoor sports are not significantly different from each other, indicating these three attractors are of relatively similar importance overall to residents and secondary to having a grocery nearby. The third group of attributes that are of similar importance is also the largest group and consists of a nearby activity centre, nearby swimming pool or fitness centre, nearby beauty services, resident organized activities, on-site fitness centre, on-site meal service, on-site activity clubs and on-site staff. On-site health care services comprise the least important category by itself and were significantly less important than any other pull factor in these residents' housing choice.

As highlighted by Table 5, there were some significant differences within rankings among the cases. A hospital or health centre nearby was less important for residents in Loppukiri than others. The importance of on-site services varied between cases and senior residents living in the senior house offering on-site services valued services more than seniors living in the senior house with only few on-site services. An on-site meal service was less important for the residents in Hakatornit than others, but Hakatornit was the only case where on-site meal services are not offered in the community. Some differences within activities were also found. A public activity centre, swimming pool and fitness centre were more important for the residents in Hakatornit than others. All these facilities were already available in the neighbourhood of the community and maybe a reason why the residents ranked them to be more important.

Table 5. Importance ranking of pull factors by community. The mean scores are based on a scale with 1 representing “not important” and 4 representing “important” (modified from Tyvimaa & Gibler, 2010b).

All cases		Mean	Kotosalla		Mean	Loppukiri		Mean	Hakatornit		Mean
1	Grocery nearby	3.66	1	Grocery nearby	3.91	1	Public transportation nearby	3.97	1	Grocery nearby	3.50
2	Hospital or health center nearby	3.32	2	Hospital or health center nearby	3.74	2	Resident organized activities	3.82	2	Hospital or health center nearby	3.15
3	Public transportation nearby	3.28	3	Public transportation nearby	3.37	3	Outdoor sports nearby	3.55	3	Swimming pool or fitness center nearby	2.83
4	Outdoor sports nearby	3.10	4	Staff onsite	3.29	4	Grocery nearby	3.50	4	Outdoor sports nearby	2.77
5	Activity center nearby	2.69	5	Outdoor sports nearby	3.12	5	Activity clubs onsite	3.39	5	Activity center	2.72
6	Fitness center onsite	2.55	6	Meal service onsite	2.98	6	Meal service onsite	3.30	6	Public transportation nearby	2.68
7	Swimming pool or fitness center nearby	2.55	7	Fitness center onsite	2.92	7	Fitness center onsite	3.07	7	Resident organized activities	1.84
8	Resident organized activities	2.54	8	Beauty services nearby	2.74	8	Hospital or health center nearby	2.87	8	Beauty services nearby	1.80
9	Meal service onsite	2.50	9	Health care services onsite	2.70	9	Activity center	2.69	9	Fitness center onsite	1.68
10	Activity clubs onsite	2.48	10	Activity center nearby	2.67	10	Swimming pool or fitness center nearby	2.53	10	Activity clubs onsite	1.63
11	Staff onsite	2.30	11	Activity clubs onsite	2.61	11	Beauty services nearby	2.31	11	Staff onsite	1.46
12	Beauty services nearby	2.30	12	Resident organized activities	2.28	12	Health care services onsite	1.47	12	Health care services onsite	1.29
13	Health care services onsite	2.03	12	Swimming pool or fitness center nearby	2.28	13	Staff onsite	1.24	13	Meal service onsite	1.24

Activity clubs are offered in all cases but Kotosalla is the only case where the clubs are mainly organized by the staff. Loppukiri residents were the only ones, who ranked activity clubs being the fifth important, when others ranked them to be tenth and eleventh. Also, Loppukiri residents were the only ones who were active in organizing clubs by themselves. Kotosalla was the only case where there is on-site staff and also the only case where residents ranked the staff being an important factor.

Even on-site services were important for the residents in Kotosalla though there was criticism that activities are directed for fragile residents and some residents would have preferred activities such as dancing or karaoke (Tyvimaa & Kemp, 2010). Kotosalla is the only case where the staff organizes activities, though residents are allowed to organize activities and clubs by themselves too, but they are not very active. The feedback highlights the importance of staff knowing the residents living in the community, their wishes and lifestyle. If a community is focused for independent and fit seniors, activities also need to be directed to support an active lifestyle.

On-site health care services were not important for residents in any cases. Kotosalla is the only case where a private medical doctor and physical therapy is available, but the services are private and available for a fee and open for everyone, not only for the residents in the community. All cases are independent living communities and focusing on an active lifestyle. Health care services in a community may associate with institutional care alternatives and they are not attractive for seniors who want to maintain an active lifestyle.

5.1.3. Summary of seniors' pull factors

When comparing the results from qualitative and quantitative analyses, some pull factors are more common than others. Location seems to be the most important factor for senior citizens when relocating to a retirement home. A good location means services for everyday life in the neighbourhood, such as a grocery shop and health centre. Also, public transportation and proximity to the city centre are important for seniors. Furthermore, neighbourhood activities were important for seniors. Activities offered in the neighbourhood are more important than activities offered in a community. This might indicate that seniors want to spend time outside their community rather than only in the community. The push and pull factors are listed in Table 6.

Table 6. Conclusion of the push and pull factors of the respondents in two papers.

	QUALITATIVE STUDY	QUANTITATIVE STUDY
PUSH FACTORS	Need for Renovation in the Former Home	Not studied
	Changed Health Status/ Need Health Care Services	
	Feeling Isolated/ Feeling Alone	
	Unsafe Former Neighbourhood	
PULL FACTORS	Location near the City Center/ Good Location	Commercial and public services nearby
	←————→	
	Neighbourhood Activities/ Having Active Lifestyle	Neighbourhood activities
	←————→	
	Easy Living/ New apartment/building	On-site facilities and services
	The Wish to Belong to a Group	On-site activities
	Age-restricted Community	

Comparison of these results to earlier Finnish studies conducted by the national public authority for statistics identifies some similarities. Statistics Finland reports reasons that are important for Finns when they choose a neighbourhood for living. In the age range 55-64, 'housing near nature' was selected to be the most important reason for 23% of respondents and central location was the most important for 22%. Central location was the most important factor for respondents in the age group 65-74 years of age: 22% of all respondents. Commercial services were the most important for 13% and 'housing near nature' for 11% of all respondents. Among the respondents in the age group 75 years of age or over, 15% of the respondents selected commercial services and

14% selected central location being the most important factor. Also, 16% of respondents answered that other factors were the most important reason (Tilastokeskus, 2007).

Both this study and that undertaken by Statistics Finland agree that nature is important for Finnish seniors. This finding distinguishes the results from Finland with other international studies. Finnish seniors value outdoor recreational facilities and nature. Finnish nature has always offered good possibilities to do outdoors sports and all Finnish cities have good facilities for different kinds of outdoor activities. Also, public activity centres and public swimming pools are important for Finns and not found in other international studies. This is maybe a reason why seniors value these activities more than more expensive alternatives. The findings of this study seem to reflect the cultural importance of outdoor recreational facilities in Finland.

Otherwise, both the qualitative and quantitative analyses show that Finnish seniors have similar housing preferences to other international studies. Seniors live in relatively old dwellings which need renovation or they wish to have an easier life. Also, unwillingness to do household work is indicative that seniors just do not want to maintain their homes any more, or they may feel old and are unable to maintain their homes.

When comparing the results of this study and international studies, some other similarities are discovered. Earlier international studies have shown that what attracts seniors to different senior housing developments is a combination of neighbourhood services, building attributes and on-site services (Wiseman, 1980; Gibler *et al.*, 1997; Stimson & McCrea, 2004; Moschis *et al.*, 2005). The same attributes were identified in this study. Neighbourhood services and location dominated the pull factors highlighting the importance of everyday services in neighbourhoods where seniors live.

When concluding the preferences of Finnish senior residents, location seems to be important across the studies. It would appear that Finnish seniors are not interested in retirement communities or villages which are built as separated residential areas. Finnish seniors value a central location and they choose first the location and then may compare on-site services or other facilities in the community. Access to shopping dominates seniors' pull factors in Finland has been identified as important in other studies.

These findings would seem to infer that successful senior house operators will not be able to construct generic properties and market them to the general ageing population. Seniors are a heterogeneous population and have differences in values and preferences based on their personality traits, backgrounds, experiences and lifestyles. Instead of generic properties, investors have to locate and design their projects and services to target specific senior groups. As residents' preferences in this study do not appear to be associated with any socio-economic factors apart from age, investors may

need to study seniors' lifestyles and segment their products for seniors having different interests.

5.2. Service packages for seniors

As part of the quantitative assessment, factor analysis was conducted to find out those service packages which attract senior residents. Service packages consist of pull factors which encourage seniors to relocate a retirement community. Investors can use packages when they are planning the on-site services they offer to seniors and the amenities they provide to communities. With the service packages investors can segment offered services and focus their marketing for certain types of seniors.

Three factors or service packages were extracted, these are named according to themes. The analysis shows that residents who are interested in activities, such as activity clubs, also value on-site services like meal services or a fitness room in the community. This factor was named 'Lifestyle' (Tyvimaa & Gibler, 2010b). Seniors who value these services prefer to live in retirement communities offering on-site services and furthermore they like to organize activities by themselves too.

The second service package includes daily services and health care services. Neighbourhood services, such as grocery shop and health care services nearby are important for all residents. Seniors preferring services value location more than purposely-built communities. The factor was named 'Daily service and care' (Tyvimaa & Gibler, 2010b). If investors want to attract seniors appreciating just everyday services, they need to offer something special but not over-price their products. Seniors valuing these services are not ready to pay extra if they consider that it is not value for money. Also, these seniors are often older and have health problems, hence their focus on health care and everyday services and there more infrequent use activity services.

Finnish seniors value activities offered in the neighbourhood. The third factor, named 'Activity', includes a swimming pool or fitness centre, an activity centre, or outdoor sport facilities in the neighbourhood (Tyvimaa & Gibler, 2010b). A swimming pool and a public activity centre are provided as low-cost activities by the government in Finland. Also outdoor sport facilities are important. These activities are important for all seniors regardless of location or any demographic features. All service packages are listed in Table 7.

ANOVA tests found no socio-economic factors significantly related to the importance of Factor 1: 'Lifestyle.' The everyday services and facilities that would enable ageing in place in Factor 2 'Daily service and care' are more important to residents 70 years of age and older, as might be expected because these residents are likely to be less mobile and more dependent on the immediate neighbourhood. Physical activity facilities in the neighbourhood comprising Factor 3 'Activity' seem to be more

important for females than males. Household income level and whether seniors live alone do not appear to be related to the relative importance of any of the pull attributes included in this study. Therefore, socio-economic factors are poor predictors overall of the residents' preferences and housing choices. Only age is related to preferences for on-site or nearby services such as health care, grocery, staff and beauty services. Thus, it is difficult and possibly incorrect to use socio-economic variables to profile or estimate a market size for different senior house attribute packages.

Table 7. Service packages for seniors. Investors and housing operators may want to focus on certain types of seniors and offer services that they prefer (modified from Tyvimaa & Gibler, 2010b).

SERVICE PACKAGES	TARGET GROUP
Factor 1: Lifestyle factor	
Meal service on-site	Seniors who value on-site activities and want to have some luxury for their lives. Seniors who want to maintain their lifestyle and be active.
Resident organized activities	
Fitness center on-site	
Activity clubs on-site	
Factor 2: Daily service and care factor	
Health care services on-site	For seniors who want to age-in-place and need some daily help or need health care services regularly. More important services to residents over 70 years of age.
Staff on-site	
Grocery nearby	
Hospital or health center nearby	
Beauty services nearby	
Factor 3: Activity factor	
Swimming pool or fitness center nearby	Important activities for all residents, especially for female seniors.
Activity center nearby	
Outdoor sports nearby	

Overall, it seems senior residents choose a combination of services and social attributes when they select a retirement location. It may not be a single feature that attracts residents, but a combination of features and services that support particular activities or allow a preferred lifestyle. It was not possible to compare these findings directly to previous international studies, for example Kim *et al.*, (2003) or Stimson & McCrea (2004), because different attributes were included in their surveys.

5.3. Social and physical environments in senior houses

Household composition in Finland is heavily weighted towards single occupancy, with households of two residents being also prominent, although on a smaller scale. In 2008, approximately 68.5% of the Finnish population lived alone or with one other person. This demographic trend contributes to an average household size of 2.09 (Statistics Finland, 2010a).

Many earlier studies (Holmén *et al.*, 1992; Lang & Carstensen, 1994; Avlund *et al.*, 2004; Routasalo *et al.*, 2006) have pointed out connections between an active social life and well-being. Also, many studies highlighted that common areas and facilities activate senior residents to socialize (Lawton, 1970; Kweon *et al.*, 1998; Andresen & Runge, 2002; Choi, 2004; Harris-Kojetin *et al.*, 2005; Motevasel, 2006). In overcoming the issues of social isolation and loneliness, the idea of offering social activities in senior houses has come to the fore, with many organizations seeing it as a means by which the level of loneliness can be reduced and social interaction increased.

Finnish experiences of social and physical environments show that seniors need activities and they want to maintain their social lives. Tyvimaa & Kemp (2010) found that personal circumstances, such as social isolation and a fear of loneliness, were common themes to push senior residents to relocate. Also, activities and lifestyle were pull factors of the social environment attracting seniors in senior houses. Similar push and pull factors were found in international studies; as referred in Paper 3. Indeed, many seniors choose their retirement location based on activities and social life opportunities in a community as concluded in Table 5.

In this dissertation, social and physical environments of two senior houses were compared. One case, Kotosalla, was typical senior house offering staff organized activities and other, Loppukiri, was cohousing developed by its residents. It was found out that there are some differences in the residents' levels of activity. Residents in cohousing are active in organizing clubs and other activities by themselves, whereas residents in the senior house prefer activities organized by staff (Tyvimaa, 2010). This might be possible to explain on the character of the cases. Active seniors who want to organize activities by themselves may prefer cohousing settings.

Also, it was found that cohousing residents know each other better than residents in a senior house. Loppukiri residents developed their community together and they have known each other for many years before moving into the community. The cohousing residents had a possibility to select the residents that move into the community but Kotosalla senior house residents were selected by the owner of the property. In addition, cohousing residents in Loppukiri are required to share working shifts with other residents. In the Kotosalla case, residents do not have any responsibilities. As these issues have an influence, it presents a significant challenge for senior house operators and staff on how to activate seniors to socialize and organize events by themselves. Even senior houses are owned by housing corporations, the residents are free to organize activities and use common areas as they like.

In contrast to Loppukiri residents, the residents in Kotosalla were not willing to organize activities by themselves (Tyvimaa & Gibler, 2010b). Kotosalla complex has many amenities for residents but services and activities are offered by staff. Although, some interviewed residents missed informal time with neighbours and told common

areas were dark in the evenings and nobody was around, they are not willing to organize activities. The feedback has identified that seniors value common areas where it is possible to socialize informally with other residents but also, they need someone to activate them to socialize.

Social life in Loppukiri did not receive any criticism in the interviews and it would appear that seniors were happy with their social environment. In contrast to Loppukiri, there was some criticism of on-site activities in Kotosalla. It seems that the activity staff in Kotosalla may not know what kind of activities residents prefer. Also, activities are too often targeted to all seniors and different kinds of segments are forgotten. Small communities may face some problems when organizing activities. Communities may have no staff to organize all the activities that residents want and if there are many sub-groups wanting different kinds of activities, groups are small and the costs of organizing activities are too high. In smaller communities it is more important to activate residents to organize activities by themselves and control costs in that way.

Both settings reflected the same kinds of feelings about privacy and common areas. All respondents in both cases valued privacy and needed to have their own space to maintain own privacy. As Durrett (2009) describes community and privacy in his book, community design should encourage social interaction and at the same time allow residents to choose whether to socialize or to be alone. Also Lawton (1970) and Motevasel (2006) found similar findings in their studies. The research presented by Lawton (1970) observed that beautifully furnished sittings rooms located far away from action were often unused as senior residents wanted to socialise in areas where they could observe other people, such as near elevators. When Motevasel (2006) studied differences between four senior housing settings in Sweden, it was found that in some cases design discouraged greater interaction. The feedback in her research demonstrated instances that socialization enforced through design often discouraged and in some instances reduced the level of interaction between residents. Indeed, the responses presented the argument that in cases where architectural design forced residents to meet others when leaving their apartment, social interaction and activeness was reduced. Motevasel concluded that the seniors are most satisfied when buildings have the architectural design which facilitates socialisation but does not force it.

This study supports the view that we need different kinds of environments for seniors. Based on statistics, the role of the family is changing in Finland. Nuclear families are smaller, singles are more common and parents do not have so many children. These facts create new kinds of needs for elderly population. Seniors need social contacts but more often than before they need to look contacts outside family. Investors have an important role in developing senior houses and communities where people can meet and create friendships and prevent the feelings of loneliness or isolation.

The main finding of this study is the provision of an understanding of social activities and contacts, the benefits that the physical environment can offer and what is important for senior residents. As earlier studies have highlighted, relationships between well-being and active lifestyle have been enhanced through the experiences of cohousing and senior house developments. Keeping seniors active and in good health is a significant goal for our society and for social policy, knowing that population is ageing and that the demand for health care services will increase. This study aims to encourage investors and operators to develop and build common areas and, at the same time, to connect residents with each other. In the next 20 years, the number of the elderly will increase remarkably and this will encumber social and health care organizations and increase the costs of the organizations. Activating seniors may decrease the need of daily assistance and institutional nursing.

5.4. A senior house as an investment

Senior housing operators face many of the same business risks as other developers; however, during the recent economic recession, senior housing in the US did not appear as sensitive to the business cycle, so it may offer a relatively healthy income return that is less volatile than conventional apartments (PREI, 2010). Moody's (2003) believes senior independent living facilities are less volatile than conventional apartments. Senior housing does face risks specific to the market segment. Depending on the services provided, the building may require more operating personnel than conventional apartments. As residents age, they may demand more supportive services than the property had intended to provide.

When studying Finnish senior houses (Tyvimaa & Gibler, 2010a) it was found that rent for the basic-level senior apartment is nearly the same as rent for a conventional apartment. Rent for the highest-quality senior apartment is generally about 10% more expensive than rent for a conventional apartment. Senior houses are able to charge higher rents than conventional apartments if they provide additional amenities and services. As rents are based on a size of an apartment, tenants with limited resources are likely to be more price conscious and is likely to increase the popularity of smaller units that charge lower rent.

Developers report that their construction costs are higher because of the addition of such systems as sprinklers, safety telephone systems and safety switch-offs. Any special equipment, such as automatic doors, adds not only to capital costs but also to maintenance and upkeep requirements. Also, senior houses have higher operational costs than conventional apartment buildings. Some reasons are the maintenance of extra facilities or more sanding for ice at winter time. Furthermore, senior residents prefer higher temperatures in their apartments. Heating is usually included in operational costs in Finland and seniors' desire for higher temperatures may increase operational costs. Regardless, there are some reasons which decrease operational costs. Senior residents

do not cause problems, such as vandalism, and senior residents usually are more active. Moreover, they know each other better than tenants in conventional rental apartment buildings and therefore, they are watching over neighbours and their community.

The biggest challenge facing Finnish housing investors in the senior housing market is vacancy rates in larger apartments which affect vacancy losses relatively more than in conventional apartment buildings. Two bedroom apartments seem to be too expensive for senior tenants having low or moderate income. Rents are based on square metres so that larger apartments charge higher rents. Also, it was found out that senior residents prefer to have their own balcony even when there is a garden in the community. Also the economic downturn and greater uncertainty has affected senior movers, slowing the lease-up of new projects in 2008. This slowdown in the housing market has had a noticeable impact on the newest entrants to the market. Once lease-up occurs, however, turnover is relatively low and approximately a third of the turnover rate in conventional apartments. The turnover rate in the Finnish senior houses studied is remarkably lower than for example in the US, where senior houses face almost three times higher turnover rates than in Finland (Tyvimaa & Gibler, 2010a). A low turnover rate decreases costs and gives a possibility to get better returns than in conventional apartments.

Data on monthly revenue and expense indicate, the results indicate that the new buildings did not lease-up fast enough to obtain sufficient rents to cover all operational and capital costs. The high turnover and vacancy losses are putting an additional strain on cash flow for the new building. The highest revenue was achieved in the senior house with the prime location while experiencing the lowest vacancy and turnover rates, and enjoys a government subsidy.

The main issue for investors is to secure a site with a good location, as this study shows location is important for seniors when choosing a retirement home (Tilastokeskus, 2007; Tyvimaa & Gibler, 2010b; Tyvimaa & Kemp, 2010). Furthermore, a good location can give better rent returns as rents are sensitive to location (Tyvimaa & Gibler, 2010a). The big cities have a lack of good sites and investors need to decide whether they re-develop existing properties in city centres or undertake new constructions in suburban centres.

Government-subsidized loans help to make a senior house project feasible financially. Developers can use this program to obtain financing in a tight mortgage market while reducing their equity investment and monthly payments. In addition, developers can consider whether the grants available to offset a portion of construction costs provide sufficient support to make offering more amenities and services worthwhile financially. However, negotiated government subsidies make financial analysis difficult because of the uncertainty and lack of standardized terms and conditions.

According to the author's interviews among investors, few housing investors in Finland have a specific developing and investing strategy for rental apartments for seniors. The investors mainly stated that they decide what kind of properties they develop based on the location and neighbourhood of the site. All interviewed investors believed that rental apartment buildings for seniors are a good investment but they are not willing to strategise where and how many properties they will develop in the future.

Furthermore, one challenge for investors is a lack of information about the senior housing market in Finland. There are not any official or public databases. No industry or government organization is gathering data on the market. Therefore, many Finnish developers and investors have either limited or no experience in the senior housing market. Usually investors collate their own databases but they are not public and impossible to compare with other databases.

Despite the doubts expressed about the profitability of senior houses in Paper 4, all operators who were interviewed in Tampere see the potential for profitable senior house operations in the future. All three organizations plan to increase the number of senior houses they offer. Some staff members believe that a lack of awareness is hampering demand. They believe that when senior houses become more common in Finland, the demand will increase. Some earlier studies in other countries found a similar lack of awareness; for example, Clough *et al.* (2004) found that older people in the UK did not know about suitable housing options in and around their own neighbourhood.

5.5. Conclusion of the results

The senior housing market faces multiple options in Finland. The Finnish population is ageing fast and the existing housing stock has many deficiencies which complicate everyday life. Accessibility problems, such as the lack of lifts or confined rooms in one's apartment, may make it difficult to live a normal life. Elderly citizens need accessible and purposely-built apartments which support everyday operations as well as services and activities which support life and offer contents for seniors' lives. The needs of seniors create business opportunities for housing investors and service operators.

The Finnish senior housing market needs new concepts and brands to fill seniors' housing needs. A design for all strategy does not fulfil the needs of all seniors. Based on the results of this study, some seniors have an opinion that senior houses offer services just for fragile residents and at the same time, seniors with disabilities may be missing more services and personal care. Facilities, services and amenities need to focus and specialize on certain types of residents or some senior houses could segment different kinds of service packages for residents with different needs. Segmentation should be based on senior residents' needs, not only on age. Seniors are not a homogenous group of residents and cannot be served with one type of service or service package.

Investors and developers interviewed in this study believed that demand for senior houses will increase in the future because of the fast ageing population. Also, they believed that an increasing awareness of senior houses as a housing alternative increases demand. The housing market in Finland is a relatively small market and senior housing market is only a minor part of the market. Hence, the size of the market is a challenge for investors. Senior houses should be segmented and different kinds of needs of seniors be provided. At the same time, senior house units should be enough big that services are possible to produce affordably. Investors are facing a challenge how to produce services affordably and satisfy the different kinds of needs of senior residents. Also, Finnish cities are relatively small. There are only a few cities where the number of senior citizens is of such a size that segmentation of services is possible. In the bigger cities, such as Helsinki and Tampere, investors may be able to segment their products but in the smaller cities and villages it could be difficult to invest affordably in even a small, basic level senior house.

According to the official statistics presented in Section 2.2.2, older seniors have low-income within small pensions. If a new, purpose-built apartment for seniors charges 10% higher rent than an older apartment in a conventional rental building, it could be a major obstacle to relocate for a senior on low-income. However, the income level of seniors in the age range 55-64 is relatively high and this baby boomer group have more assets. Thus, in the future, changes of seniors' wealth may certainly increase the demand of purpose-built senior house apartments.

This study shows senior houses are a challenging investment object. The average annual vacancy losses were higher in senior houses than in conventional rental apartments in same neighbourhood. This was affected by too large apartments and the lack of own saunas and balconies in smaller apartments. These findings suggest that investors in the past did not know what kind of apartment types seniors prefer, yet it is important to know customers' preferences when the market is small. Location seems to be significant when marketing senior houses. If the location is good, the demand is high and prices of condominiums or rents of apartments can be higher. When the location is not favourable, seniors might be not interested even if facilities and amenities are of a high quality.

Furthermore, investors should pay attention to marketing. This could be more focused on the target customers and concentrated to give realistic information of services and amenities. Better and open marketing would increase the attractiveness of senior houses. This study and earlier international studies indicates that seniors lack information and too many prospective customers have the perception that senior houses are nursing homes (Gibler *et al.*, 1997; Clough *et al.*, 2004; Tyvimaa & Kemp, 2010). The lack of information decreases the demand for senior houses, with many seniors considering that senior houses are institutional care options for fragile ageing people. Marketing needs to focus on describing the new lifestyle that senior houses can offer to

residents and should not just be a technical description of amenities and services. The image of senior houses needs to be improved so that they can attract new customers and the image that senior houses are a housing alternative for the elderly in poor health needs to be displaced.

Some 41% of those who have recently moved to a freestanding independent living community in the US first learned about it from family or friends (ASHA, 2009). This means that senior house operators may need to promote their offering not only to potential residents, but also to their children. Ongoing promotion may be needed along with more direct contact, such as inviting neighbourhood's older residents to the building for activities or an event to familiarize them with the senior house concept. Referrals are often another important component in a seniors housing leasing program. An additional 27% of recent independent living movers learned about the community from someone who lived there (ASHA, 2009).

The availability of data from senior housing market in Finland should be better. No industry or government organization is gathering data on the senior housing market in Finland. The lack of general databases and academic research makes it more difficult to observe the market and compare business figures to the market generally. Also, the attractiveness of the business and the market suffers when there is not sufficiently correct information about the business and market figures. Comparisons between different investment options are difficult to make because all information and data need to be collected case by case. In addition, for example, annual returns and vacancy rates of existing cases are very seldom available.

However, the small senior housing market potentially hampers data gathering. Even if data were collected anonymously it might be possible to recognize the investors and operators because of their limited number. Hence investors often are unwilling to disclose information. In the US, many organizations, for example American Seniors Housing Association and National Investment Center for the Seniors Housing & Care Industry, collect and maintain extensive databases. However, the senior housing market is highly significant business in the US and investors are numerous.

In Finland, independent living facilities are statistically calculated as being conventional apartments. This makes it difficult to know which properties are only for seniors and which are unrestricted, conventional apartments. In the future, it might be an advantage for investors if senior houses were classified as age restricted housing buildings, and it would be possible to gather information and data based on property locations.

The Finnish senior housing market gives a lot of opportunities but needs to develop its investment business to become more professional. At the moment, investors do not have a clear idea of the market which suffers from a lack of knowledge though it seems

that the ageing population may increase the demand of purposely-built apartments for seniors. The results of this dissertation will hopefully help investors to develop housing options for senior citizens and new business concepts in Finnish housing market.

6. JUSTIFICATION AND EVALUATION OF THE RESEARCH

6.1. Contribution of the research

This research contributes to the Finnish senior housing market by presenting novel findings of the decision making process of Finnish seniors when choosing a retirement home. By exploring the preferences of Finnish seniors, new insights are given to explain the push and pull factors affecting seniors' lives when they consider their housing options and relocation. Understanding the decision making process of senior customers is a prerequisite for successful business when developing and investing to the senior housing market.

Previously, seniors' preferences have been studied mainly in the US and that market offers many possibilities for senior citizens. Cultural and historical differences between nations are remarkable and it is impossible, and not essentially desirable, to copy American independent living communities in Finland. Market research is essential to ensure that the design and location of senior house matches local preferences. The fast ageing population in Finland has highlighted a need for information which is focusing on Finnish seniors and their preferences. This dissertation provides evidence that the preferences of residents, especially senior residents, follow residents' lifestyles and backgrounds. When investing in a housing market which has a strong relationship with cultural features, it is important to understand the local market and customers' behavioural, historical and cultural backgrounds and lifestyles behind preferences. The findings of this study are important when modelling the decision making process of Finnish and other European senior residents. As it appears that socio-economic factors are not the best predictors of seniors' housing decisions, it is important to know how the push-pull framework works in different cultures and what influences senior citizens' decisions.

The outcomes of this study should encourage investors to investigate their customers and existing residents, and develop services, amenities and communities. Investors in the Finnish senior housing market do not segment their products and very few housing concepts have been developed just for the senior housing market. This study elicits the fact that there are many possibilities to do business in the senior housing market if investors have the courage and are ready to investigate in the business area they are focusing on.

Moreover, this dissertation provides evidence that the social environment is an important part of seniors' lives. When the number of seniors living alone is increasing, society has to take care of all elderly people and prevent isolation and loneliness of persons who may not have family or relatives. The role of an active lifestyle and social environment is fundamental in the pursuance of a better quality of life, and previous studies have demonstrated that lifestyle dynamism reduces levels of social isolation and even mortality (Due *et al.*, 1999). These are important signals for society where elderly care is mainly covered by tax revenues.

Furthermore, this study allows international investors to acquaint themselves with the Finnish housing market which is relatively small but interesting and offering many possibilities. For investors it is important to get correct data and information from the market. Knowledge of the market assures a better foundation for business and increases transparency.

Also, being the first doctoral dissertation studying Finnish seniors' independent living facilities from the viewpoint of business, it hopefully will encourage other researchers to conduct further investigation into this growing area of business. The Finnish senior housing market needs academic research and data from the market in order to evolve into a successful business area. Furthermore, this study helps the authorities to understand the viewpoints of investors and explore the prerequisites of making business. Knowledge of seniors' preferences helps authorities to plan cities and neighbourhoods to support seniors' everyday life and the idea of age-in-place.

Lastly, information of different kinds of seniors' housing options is important for senior customers too. The benefit of understanding seniors' housing alternatives encourages relocation and provides the impetus to find better housing options. As Clough *et al.* (2004) report in their study, older people in the UK did not know what kind of seniors' housing options there are in their own neighbourhood. Therefore, it is important to study and publish objective information about housing alternatives.

From a practical perspective, this study offers important findings for those interested in developing existing senior housing alternatives or creating new housing options for elderly people. As the study emphasises the population is ageing and the demand for purpose-built apartments is increasing and generating unlimited opportunities for investors and service operators. However, the dissertation's findings need to be analyzed and limitations recognized when interpreting the findings.

6.2. Evaluation of the research

The approach of this dissertation is abductive. The process progressed step-by-step by getting familiar with the Finnish senior housing market, reviewing literature, collecting and analyzing empirical data and writing scientific articles. The final phase included

summarizing all results, connecting the articles and giving an overview of the research process and results.

This study includes both quantitative and qualitative elements of analyses. While the quantitative aspects aim to generalize findings, the qualitative aims to understand and explain people's experiences. The purpose of this study is to understand senior citizens' preferences when choosing a retirement home and to describe the Finnish senior housing market from the viewpoint of investors. The following sections evaluate both quantitative and qualitative approaches.

6.2.1. Quantitative analysis

Two issues, validity and reliability, are usually discussed when establishing the trustworthiness of quantitative research. Validity concerns whether the findings and results are what they appear to be (Robson, 2002). Validity is also divided into external and internal validity. External validity, also referred to as generalizability, is concerned with whether the results can be extrapolated to other settings and times. For example, can the research be generalized for groups having other racial or social backgrounds (Creswell, 2009). The study has internal validity if it can be plausibly demonstrated and repeated, and the introduction of the tests can explain the outcomes. Internal validity can be threatened, for example, if respondents do not represent a sample generally but represent some untypical sub-group (Robson, 2002).

Reliability indicates whether a study measures what it should measure. According to Miles & Huberman (1994), it is important how a survey has been conducted, if the questions are clear and easy to understand, that field-workers are involved with protocols and how coding has been done. The threats of reliability are, for example, poorly executed coding or untrained coders (Neuendorf, 2002).

This research study employed a case study approach with cases selected to represent different kinds of retirement settings. Before the cases were selected, the extent of the senior housing market in Finland was studied and potential cases were identified. The cases that were selected represent different kinds of senior housing settings and give a wide picture of the market. The questionnaire surveys were mailed to all residents in the selected cases.

When developing the questionnaire and formulating the questions, the researcher should ensure that the language of the questionnaire is consistent with the respondent's level of understanding. The surveys were designed with a group of researchers. All questions were checked even down to correct spelling. Furthermore, the surveys were piloted with three seniors in different age ranges. All questions were considered carefully particularly to ensure that the questions were easy to understand. When the surveys were returned back to the researchers (postage was ready-paid), all responses

were transformed to an electrical form. The acceptability for statistical analysis was checked with the software.

The survey and analysis processes followed in the research have been explained in detail in this summary and also in the scientific papers that accompany this study meaning that it is possible to replicate this survey in other settings and at another point in time. The reliability of this dissertation is increased as it was designed with a research group and the survey was piloted before being mailed to respondents. The whole research group was trained to understand data collection methods and circumstances related to this field of study. In addition, the study used triangulation as discussed in Section 6.2.3.

6.2.2. Qualitative analysis

When evaluating the qualitative part of the study; credibility, transferability, dependability and confirmability are key issues (Robson, 1993). According to Patton (1990), the credibility of a qualitative study depends on three elements:

1. Rigorous techniques and methods for gathering high-quality data that is carefully analyzed, taking care of validity, reliability and triangulation;
2. The credibility of the researcher who is trained and experienced;
3. A fundamental appreciation of naturalistic inquiry, qualitative methods, inductive analysis and holistic thinking.

Credibility demonstrates that the inquiry was carried out in a manner which ensures that the subject of the inquiry was accurately identified and described. In this study, all three elements identified by Patton (1990) were adhered. When designing interview questions, the survey responses were explored and the interview questions were designed to deepen the information from the survey responses. All researchers conducting interviews and the author of this dissertation have been trained to understand the data collection methods used in this study. All interviews were recorded and transcribed verbatim by a transcriber in order to avoid misunderstandings between researchers and also, to give a possibility to go back and re-examine the interviews.

The research approaches and methods are discussed and described. The handling of dissertation shows that the researcher has understood the background and theory in the field of the study. The study process demonstrates that the researcher has chosen methods justifiably. The credibility of the dissertation was also increased by the triangulation of methods.

Transferability parallels external validity and it has always been a difficult issue in qualitative studies. According to Guba & Lincoln (1981), credibility is a prerequisite for

testing transferability. Miles & Huberman (1994) list some useful issues when measuring transferability and external validity stressing the need for all characteristics of the original sample and processes to be fully described enabling potential comparison with other samples. Also, findings need to be connected to prior theory. The transferability of this study was supported by describing the respondents and gathered data, reporting the research methodology and the results in detail both in the papers and also in this summary.

The underlying issue of dependability is whether the process of the study is consistent, reasonably stable over time and across researchers and methods (Miles & Huberman, 1994). Dependability parallels reliability and has been discussed in the section on quantitative analysis. In this dissertation before starting data collection, interviews were piloted, questions were tested and also discussed with other researchers to check if there are any possibilities to misunderstand the questions. The in-depth interview method was chosen because it introduces the possibility to ask deep questions and ask the same questions differently if a respondent does not understand a question. The data used in this dissertation were coded only by the author to ensure consistency in coding. This was progressed using a step-by-step process: first all data was read through and a tentative coding was progressed. All codes were checked before any codes were merged or re-coded. As reported above, the dependability of this dissertation is supported by reporting the research process, the methodology and the results in a clear and detailed manner.

Confirmability refers to the ability to trace the researcher's construction of the interpretation by following the data and methods. Confirmability parallels objectivity (Robson, 1993). In the context of confirmability, an audit trail means that the necessary materials and analyses to confirm the research are available (Guba & Lincoln, 1989). In this study, the audit trail includes the raw data, such as audiotapes, verbatim transcripts, and survey responses, as well as coding and memos from qualitative data. In addition, the confirmability of this dissertation rests on the credibility of the empirical data and the reporting. Regarding the latter, the researcher's pre-understanding of the studied area is discussed, the research approach is described and the background for chosen methods are introduced. Also, the empirical evidence and the data analyses leading to the results and findings of this study are described.

6.2.3. Triangulation

Triangulation refers to using of evidence from multiple sources, conducting of different methods of collecting or analyzing data and different investigators. According to Denzin (1988) there are four different triangulation types:

1. Data triangulation refers to using different methods to collect data, for example interviews, surveys and documents.

2. Observer triangulation refers to using more than one investigator in the research process.
3. Methodological triangulation combines quantitative and qualitative approaches.
4. Theory triangulation uses multiple theories or perspectives.

In this dissertation, data triangulation was used with data collected by using different methods. When the data was collected from residents living in the selected cases, both questionnaire surveys and interviews were used. The data from investors was collected first with a survey and after the data were assessed interviews were conducted based on the data collected with the surveys. Thus, the interviews strengthened the data collected by the surveys.

Furthermore, methodological triangulation was used when quantitative and qualitative approaches were combined, with both qualitative and quantitative data collection and analyzing methods used side by side. Also, the results of quantitative analyses were explained with the qualitative results. Methodological triangulation was used both in the residents' survey and interviews, and in investors' surveys and interviews.

Also, observer triangulation was involved in this study. All questions and themes in both the surveys and interviews were checked amongst the research group working on research project. Moreover, the findings were discussed within the group. Peer debriefing means exposing one's analysis and conclusions to a colleague or other peers on a continuous basis (Robson, 1993). Peer groups can contribute to guarding against researcher bias through debriefing sessions and can also fulfil almost a therapeutic function (Robson, 2002). As mentioned earlier, all phases in the research process were valued and discussed with other researches that have a general understanding of the nature of the study. In addition, the structure of the dissertation consists of four individual papers, which are peer-reviewed and evaluated individually when accepted to be published in academic journals.

6.2.4. Limitations

This dissertation has some limitations. This study focuses on Finnish senior citizens, so it may not be repeated in different nations and cultural environments without some changes. Hence, the questionnaire survey and interviews could be repeated in full, without changes, only for other cases in Finland. Secondly, because the study is focusing only on the Finnish senior housing market, sample sizes are small from a statistical analysis point of view. The Finnish senior housing market is still in its infancy and only a few retirement settings are established. Also, the existing properties are usually small having only 30-50 apartments. Nevertheless, the selected cases give a good indication of the existing Finnish senior housing market.

A lack of earlier studies about the Finnish senior housing market prevents any wide comparison between the results of this study and earlier Finnish studies. Also, an official database concerning senior housing market is not available. The lack of these limits possibilities to compare the results of the senior housing operations to other investments. Furthermore, the data obtained in this study might be partly unsuitable to be compared with international databases because the data collection process was fitted to serve the selected cases.

6.3. Suggestions for future research

The Finnish senior housing market offers many further research ideas. The fast ageing population and an increasing need of purpose-built apartments for seniors raises the need for information and deep knowledge of the market. The research can also increase the attraction of the senior housing market. The lack of professional and academic studies focusing on Finnish or Scandinavian seniors and their lifestyles makes it difficult to develop the market.

More information is needed about senior residents' preferences. This study discovered push and pull factors for senior residents who currently live in senior housing settings, however it would be useful to observe seniors who considered to move to an age-restricted community but never did so. Why do seniors not move to independent living communities? Are the reasons related to services or facilities offered by community? Is a lack of awareness and information a reason to avoid age homogenous communities or are there some other reasons why seniors choose some other housing option?

Furthermore, there are some seniors who choose a senior community for retirement destination but they are disappointed and move out. For housing investors it would be worthwhile to know, why senior residents decide to move out. That could give new insights into seniors' decision making process. What are the push factors to push seniors out of retirement communities?

Also, seniors' needs have to be studied in more detail. If service operators want to satisfy senior residents they need to know what kind of services seniors want. This study shows that seniors do not have full satisfaction with on-site services which may reflect on service operators and community staff not knowing or fully understanding residents' requirements. It is easy to study residents living in a certain community; therefore, the operators should pay attention and listen to their residents. When an investor or a service operator investigates its own residents' community, there is a need to be very careful and appreciate residents' privacy and anonymity, otherwise the results may not be truthful.

Investors in the Finnish senior housing market need more information on how to maximise revenues. At the moment no public organization publishes databases about senior housing (for examples turnovers, rents or operation costs). Public information on senior housing market will help investors to make decisions and understand the features of the market. Research is also needed to analyze and estimate the demand for the full range of senior housing alternatives in Finland.

As this study is specific to the senior housing market and independent living facilities in Finland, it is important to encourage future research on this market area and also, in the housing market overall in Finland. Housing has been a minor business in Finland and dominated by a few professional housing investors and municipalities. The market could be more attractive to new or international investors if academic and practical studies were available and all operations were more open.

Lastly, more research is needed in each European country to analyze cultural preferences that can affect the housing decision making process. For a comparison of the push-pull frameworks in different countries it would be useful to examine the influence of cultural differences. Without fully understanding of cultural differences it is difficult to develop successful investments for residents with different kind of needs.

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