A research of end users' requirement on the housing market

Dimple Patel

Dissertation for the joint degree

MSc in International Project Management
Teknologie magisterexamen i International Project Management

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Dimple Patel

International Project Management
CHALMERS UNIVERSITY OF TECHNOLOGY
NORTHUMBRIA UNIVERSITY
Göteborg, Sweden 2006

Foreword

This dissertation has been carried out within the programme of International Project Management. This programme is an education at master level located to the two universities, Chalmers University of Technology (Sweden) and Northumbria University (UK). The dissertation is worth 20 Swedish university points and has been conducted from August 2005 to March 2006. This dissertation is part of a greater study within a European project called ManuBuild, and has been carried out in co-operation with NCC Construction Sverige AB.

The structure of the research is based on Northumbria University's student handbook for postgraduate dissertations. The handbook conveys a general guide to the dissertation process and also sum up the dissertation module and the Applied Research Methods. The research and analyse is developed though a close cooperation with qualified tutors. The research is based on the Harvard Style.

The author would like to express her sincere gratitude to all the people who have contributed to making this dissertation possible. Special thanks are extended to Bengt Larsson, my examiner at Halmstad University and Christina Claeson-Jonsson my supervisor at NCC Construction Sverige AB. They have support my work continuously and have given me good advice during my research. The author would also like to express her appreciation to everyone who thankfully contributed to the research through interviews. This research could not have been done without your contribution of opinions and knowledge. The author also wants to thank all the other people that have showed interest and have given the support to this research.

Göteborg, Sweden, March 2006

Dimple Patel

Abstract

This research discusses the possibility to categorise people on the housing market. The purpose with this dissertation is to collect and analyse end users' requirement on the housing market, and to analyse how they want to live. The stakeholders in this research are the tenants that live in rented flats, co-operative flats, and detached houses. The main question brought up for this dissertation is how the end users' on the housing market can be categorised and the factors that restrain such categorisation.

This research is carried out though literature research and using the results of interviews of 80 persons. The interviews were done in a questionnaire format, and have been used on persons living in the Göteborg region, specifically in areas such as Eketrägatan, Ramberget, Backa and Chalmers University. The aim with these interviews has been to find out what people think about their living situation and if people can be divided in certain categories like students, families without children, families with children, families with shared custody and senior citizens.

The author of this dissertation believes that there are two methods to find out how people want live and what their requirements and needs are. One method is to use the same method as used in this research, to interview people regarding their housing situation. Another method is to build test housing.

The result shows that categorisation partly can be done with people on the housing market, and it is a good method to use to find out peoples' thoughts about their housing. Finally, factors which make categorisation possible are main interests, living situation, service benefits, immediate surroundings and range of service, outdoor area and buildings, building functions and standard, and interior decoration.

Keywords: marketing, housing market, end users', categorisation

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1 Introduction

The living situation changes continuously. What does housing mean to people? How do people want to live? Do you have a good housing? These are questions that lately have emerged. For example, are you satisfied with the size, design, environment, neighbours, and the city, proximity to the work, culture and service? How much are you willing to pay for all these comfort? Housing consists of different kind of conditions, where the "housing" and the surrounding are compliments to each other (Lind & Bergenstråhle, 2004). According to Svensk Fastighetsförmedling (2005) a total of 53% of the Swedish people are satisfied with their housing and 45% are dissatisfied. Women are often less satisfied with their housing than men and younger people are obvious less satisfied than senior citizens. In Sweden exchange of housing is very trendy today. Eight of ten people want to switch their housing to a bigger housing and this is very popular among people that are under 35 years old.

According to Boverket (2005) a questionnaire of the housing market shows that building of tenant ownership will increase in year 2005 and 2006. The proportion of special housing will decrease. According to municipality project lists only 25% of tenant ownership production is special housing for senior citizen, disabled people and students. Approximately 56% of Sweden's population lives in semi-detached houses and 42% lives in multi-storey buildings.

It is obvious that housing mean different for different people. Every individual have different priorities in life. Age has a huge influence on society's housing construction. The main point with the housing is that every human being wants to have safety, possession, accessibility. They also want to have participation, democracy. The question is how the housing shall be adjusted after tenants' requirement. Can categorisation be a method to satisfy the people on the housing market?

1.1 Purpose

The aim with the dissertation is to collect and analyse end users' requirement in the Göteborg region and to analyse how they want to live. The stakeholders in this research are the tenants that live in rented flats, co-operative flats, and detached houses. The main question for this dissertation is how the end users' on the housing market can be categorised. Is it possible to categorise people into different categories in the housing market? What are the factors that restrain the categorisation?

1.2 Key Question

The main question for this dissertation will be: How can the end users' on the housing market be categorised? Is it possible to exactly identify which category you belong to and what are the restrained factors in categorisation?

To move to a new house is a big decision and of course it is important to consider many issues. Detailed questions for this research are: From people's point of view, what issues are important when you move to a new home? Is district and service more important than the living environment? How important is it with housing functions and standard? For example, do people want to live in a house with spacious kitchen and bathroom? How important is it with interior design? How much time do people spend in their home? How much influence do people want in their new home?

1.3   Outline research method

The research method that has been used for this study is a quantitative approach. The motive behind this is because quantitative research is most common encountered as part of formal or conclusive research. Quantitative research is also used when conducting exploratory research and the research techniques are part of primary research. According to Osborne (2005) the strength of quantitative research lies in precision and control. Quantitative research is about measuring a market and quantifying that measurement with data. On the other hand quantitative research can also be used to measure customer attitudes, satisfaction, commitment and a range of other useful market data that can follow over time. For this research structured interview will be done after well prepared questions. The author of this dissertation has chosen to do the interviews in questionnaire form, and the questionnaires have been handed out personally by the author. The interviews are made with 80 carefully selected people.

Fellow and Liu (1997, p.19) describes quantitative research like, "Quantitative approaches seek to gather factual data and to study relationships between facts and how such facts and relationships accord with theories and the findings of any research".

Holt (1997, p.73) define quantitative research method like, "Quantitative methodologies involves consideration of size and magnitude, and may be perceived as being more analytical in nature than qualitative methods. Structured interviews, structured survey, symbolic models and physical experimentation, are all synonymous with quantitative methods".

1.4   Parameters to the research

Parameters can be described as the objectives, which effect and form result of the research. From the author's point of view there are always parameters that effect and form the research. The conclusion of this research is affected by parameters and these parameters are crucial to evaluate. The most important parameters of this research are the interviewees. The outcome from the interviews has a huge impact on the author's conclusions. The time-schedule of this research also is a parameter that is affecting the research.

1.5   Limitation

The main question raises new questions. Limitation has to be made because it is possible to investigate the whole meaning of the key question. Limitations make the research more specific and easier to fulfil. The limits of this dissertation are made and based on the tutors recommendations together with the author's estimation. The limits of this dissertation are:

- Interviews have only been with people that live in Göteborg region and in areas like Eketrägatan, Ramberget, Backa and Chalmers University.

- Interviews are only made with people that live in rented flat, co-operative flat and detached house.

- The interviews have been limited to 80 carefully selected persons.

2 Customers on the housing market

The author of this dissertation thinks it is crucial to analyse how the customers on the housing market want to live. Marketing can be an approach to find out what the customers think of their housing. According to Kotler (2003) marketing can distinguish between a social and a managerial definition. The social definition shows the role marketing plays in society. Marketing can also be defined as a societal process by which individuals and groups obtain what they want and need. This can be done though creating, offering, and freely exchanging products and services of value with others. For a managerial definition, marketing has often been described as the art of selling products or services. It is crucial to know that selling is not the most important part of marketing. Selling is only the tip of the marketing iceberg. Kotler (2003, p.9) supported Peter Drucker, a leading management theorist, expresses it like "marketing is to make selling superfluous. The aim of marketing is to know and understand the customer so well that the product or service fits him and sells itself. Marketing should result in a customer who is ready to buy. All this should be needed then is to make the product or service available".

2.1 Defining customers

The definition of a customer can be described in many different ways. Kotler (2003) describe that a customer is someone for whom we have direct experience of carrying out work. The work that is carried out for the customer must meet up to their expectations. It is important to understand what the customer requires and wants. The customer's view of marketing can be listed as:

- Marketing is identical with promotional activities.
- A customer is someone that has used services recently and is reasonably positive.
- The aim of marketing for companies and firms is to win additional new work.
- Customers are expected to respond best of marketing activities that provide value for them.

Kotler (2003) state that there are several types of information that can be considered when you do a market analyse of customers. Base information is simple data that probably is needed in order to either produce internal statistics or to have a basic understanding of the customer's needs. Thinking information is the information that we gather about the customer and their requirements which could stimulate our thinking about what the clients really want and need. This information also gives the opportunity to do exploration of new areas of work. Our information is information only for internal use. This information helps the market researcher to understand what has happened in the past, what the situation is today, and who is involved.

2.2 SWOT Analysis

According to Walker *et al*. (2000) SWOT Analysis is probably the most common tool used in marketing of customers. The value of a SWOT Analysis is not in analysing itself, it is about what the analyse leads us to. The target with analyse is to get a closer look into the relevant objectives. The word SWOT stands for strength, weakness, opportunities and threats. Strengths and weaknesses refer to factors over which we have or factors that we should have. It is about to have influence and control. On the other hand the opportunities and threats are factors that we have no control of. It is concerning the customer, customer's market place, customer's competitors, and the company's competitors, or even legislation and new regulations. A SWOT Analyse should be applied in relations the particular customer we are considering. It is also crucial to consider that a SWOT Analyse is to get the customer's view of strengths and weaknesses.

2.3 Identification and Categorisation of the end users' requirement

According to Olling (2005) there are three different types of housing. Either you own you housing with a tenant-owner or directly own your housing. You can also rent housing. In Sweden 20% is co-operative flat, 40% is private ownership and 40% is rented flat of the entire housing market. The author of this dissertation thinks the tenants can be divided into groups in the housing market. Categorisation of end users' can for example be divided in groups and factors like age, gender, living standard, income, and interests. All these factors together can make it possible to see what kind of category you belong to in the housing market. How can the end users' be categorised? Is it possible to see exactly which category you belong to and what are the restrained factors?

If a close examination is done of how different age groups live, you often can notice that there are different kinds of age groups in different categories. This can depend on many people in the same age move in to a new built residential area at the same time and then they continue to stay there. An example for this can be student housing and housing for senior citizen (Malmberg *et al*. 2004).

It is important to consider that because you have the same age, gender or interest it does not mean that you belong to the same category. For example, young people can be divided in a category like students, but not all young people are students. Some young people work. A factor like income can have a huge effect on which category you belong to. Another example of categories can be families with children, families without children, families with shared custody, senior citizen and disabled people. Categorisation can also be made after habits, lifestyle and interests. For example is a person that is interested in environmental issues, willing to pay extra money to live in an environmental friendly house? What are the factors that make the groups different from each other?

Categorisation of people can be made in different ways. The author of this dissertation is below proposing her own ideas about different categories.

2.4 Students

Young people can de divided in groups like students, young people that work or young disabled people. Students can be identified as people that are occupied with some kind of studies. It is not necessary that a student have to be in a certain age to be grouped as a student. In Sweden it is quite common with students of an age above 30. This means that students can be categorised after age. A young student maybe does not earn much money as a student that is over 30. Students that are over 30 have maybe worked before he or she started to study. The situation for young people has changed a lot recently. In Sweden students and teenagers have bigger opportunities to live alone because of the student benefit. The student benefit is approximately 7000 Swedish crowns per month. This means that young people that are studying are dependent on the economy.

Hyresgästföreningen (2005) gave SKOP(Skandinaviska opinionen ab) a task to interview 1161 young people in an age between 20 to 27 in the Göteborg region. The interviews treated young people's present living situation and about their future living preferences. From the 1161 interviewees, 603 were from Göteborg and 558 were from small town belonging to the Göteborg region. The interviews showed that people in an age of 20-27 do not live alone. Besides they live in much smaller flats than they used to do in 2003. The result from the interviews showed that women move away from their parents earlier than men. Approximately 16% of the women in an age of 20-27 live with their parents; the corresponding share of the men in the Göteborg region is 26%.

Key factors to identify students:

- Income
- Age
- Current occupation - study
- Small housing
- Low rent
- Priority - the home is a basis between journey to schoolwork and to other activities.

2.5   Families without children

Families without children can be divided in two groups, people that are single or people that live with a partner. Single people and people that live with a partner have other priorities comparing to families with children. Also in this case it is important to consider that people that live with a partner have different needs and can be categorised in many groups. The groups can for example be married couples with good income; couples that are studying with low income, people that work and live with a friend, and couples whose children have moved out. It is important to consider that families without children can be categorised after factors like age, income and current occupation. For example in this case current occupation can be the dependent factor to decide which category you belong to in the housing market.

Key factors to identify families without children:

- Single or family
- Income
- Age
- Current occupation - work, study or unemployed
- Rent - depending on income
- Priority - comfort, function and design. For example guestroom or study can be transformed into a room for children.

2.6   Families with children

Families with children where the both partners are working, often have good economy. But even here it is possible that young people have children and that means that their living standard can be dependent on their economy. The people that can belong to this category are obvious people that live with children. The identification of this category can be married couples with children, common law spouse with children and even youngsters that still live together with their parents.

Key factors to identify families with children:

- Income
- Age
- Current occupation - work, study or unemployed
- Housing area
- Priority - close to different activities, own room for children, spacious kitchen, separate laundry room, space for the children to play.

2.7   Families with shared custody

People that have children but not live together with the other parent can belong to this category. Also persons that are separated and live with another partner with a child can belong to this category. Families with shared custody can be people in any age and even here the current occupation have an effect on which type of category you belong to. Today in Sweden overall it is very common with families with shared custody. Families with shared custody in average spend approximately 28% of the income on housing.

Key factors to identify families with shared custody:

- Income
- Age
- Current occupation - work, study or unemployed
- Low rent
- Priority - space for the children to play

2.8   Senior citizens

Housing for senior citizens can be categorised in senior housing and special housing. Age can be a dependent factor to see if you belong to the category of senior citizen. To be categorised as a senior citizen you have to be in a certain age. If you have a certain illness you can be categorised as early retirement.

Key factors to identify senior citizens:

- Income
- Age
- Current occupation - senior citizen
- Low rent
- Priority - live close to different services and safety

3   Interviews with customers on the housing market

Any research or study requires some form of investigation technique that needs to be clearly defined before proceeding with the work. Interviews can be made in different techniques and for this dissertation the author has chosen to do interviews in questionnaire form. According to Gilbert *et al*. (2002) the researcher's previous decisions regarding information needed, the structure and cover to be imposed on its collection and the method for administrating the questionnaire will largely control the decisions regarding individual question content. The researcher can and should ask some additional questions, although it is always crucial to consider if the question is necessary. Suppose that an issue is important, and then the researcher needs to ask whether the point has been sufficiently covered by other questions. The questions should be framed to secure an answer with the required detail but not with more detail than needed. The researcher also has to consider that there will be situations in which several questions are needed instead of one. One thing that can be done is to break one question down into separate questions that reflect the possible frames that can be used.

Gilbert *et al*. (2002) mention that it is important that the researcher carefully examine each issue to discover whether the typical respondent can be expected to have information required and the respondents will give answers. For the answers to mean anything, the questions need to mean something to the respondents. This in order means that the respondent needs to be informed with respect to the issue addressed by the question. The respondent must also remember the information. Even if respondents have the information, there is always a question of whatever they will share it. Once the form of response and specific wording for each question has been decided, the researcher is ready to begin putting them together into a questionnaire. It is important that the researcher recognize that the order in which the questions are presented. This can also be crucial to the success of the research effort (Gilbert *et al*. 2002).

3.1   Interviews

As mentioned before the author has chosen to do the interviews in questionnaire form. The questionnaires have been handed out personally by the author. The interviews were made with 80 carefully selected persons representing students, families without children, families with children, families with shared custody, and senior citizens. Interviews have been carried out on persons living in the areas Eketrägatan, Ramberget, Backa and Chalmers University in Göteborg region. Interviews have been limited to people who live in rented flat, co-operative flat or detached house. The questions the author has chosen to ask is about peoples' requirement on the housing. The questions and the reasons to why the author has chosen to ask the specific questions are presented below.

The questions the author has chosen to ask the people are:

1. What is your gender?
Why: This question is a standard question. You must know the gender of the person when you shall categorise people.

2. How old are you?
Why: In this case it is important to know the age because people have different needs and requirements depending on age?

3. How do you live today?
Why: It is important to know how people live today. It is easier to categorise people after knowing how they live. Is this person living alone or does he or she live with a partner?

4. What is your current occupation?
Why: What kind of lifestyle does this person have? Can this person spend more money on housing?

5. What are your main interests?
Why: The interests show how you are as a person. For example, if you have an interest in environmental issues maybe you then want to live in an environmental friendly house.

6. What type of housing do you live in today?
Why: What type of housing is popular and topical today in the housing market today? In a detached house you can do more changes than in a flat. It is more limited space in a flat.

7. How would you prefer to live?
Why: After asking the question how people live today, then it is interesting to know how people would prefer to live.

8. From which type of service in your housing would you have benefit of?
Why: Here you can find out what kind of services people want. For example, a student may not have the same requirement of service as a family with children. The priorities are different depending on peoples needs. Which services are topical today? Is it possible to adjust the housings after the services people want?

9. Which type of equipment do you think should be standard in your home?
Why: Students may not have the same need of a dishwasher in their home as families with children.

10. Would you like to choose the brand of the equipments on the question above?
Why: How much money are people willing to pay for their equipment? Is brand important to people today?

11. Would you like to have individual measurement and debit of electricity, heating and water?
Why: Here you can find out what people think of living in a flexible home depending on costs. Do people want to be able to control the measurement of the usage of electricity, heating and water?

12. How much time do you normally spend in your home on one day?
Why: Is this person spending a lot of time in the home? Is it possible to see which categories that spends the most time in their home?

13. What do you think is most important when you move to a new housing?
This question deal with issues like immediate surroundings and range of service, outdoor area and buildings, building functions and standard, interior decoration, and IT-level.
Why: With this question you can find out what factors people think is most important when they move to a new housing. Do categories like students, families without children, families with children, families with shared custody and senior citizens have different opinions concerning the housing? Is it possible to build houses exactly after peoples needs and requirements?

3.2 Analyses

The results from the questionnaire show that the different categories have different requirements and needs regarding the housing. The questionnaire has been answered by 80 persons of which 33% were male and 67% were female. See figure 1.
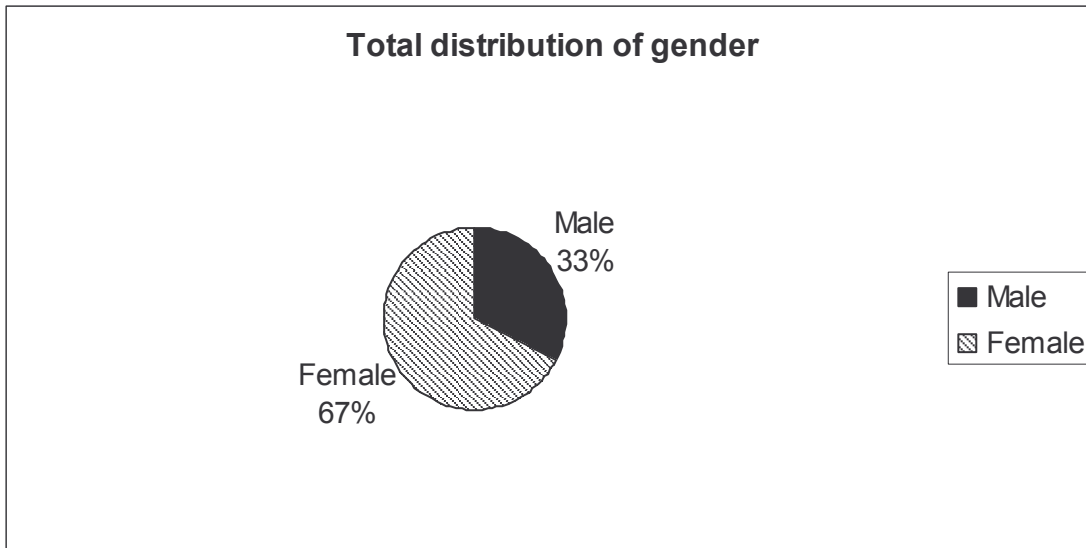
Total distribution of gender

Male
33%

Female
67%

■ Male
▨ Female

Figure 1. Diagram on total distribution of gender.

The result from the questionnaires regarding the total age structure shows that 25% were in the age 18-30 year old, 27% were in the age of 31-40 year old, 24% were in the age 41-50 year old, and 24% were in the age 51 or older. See figure 2.

Total age structure

51 or older
24%

18-30
25%

41-50
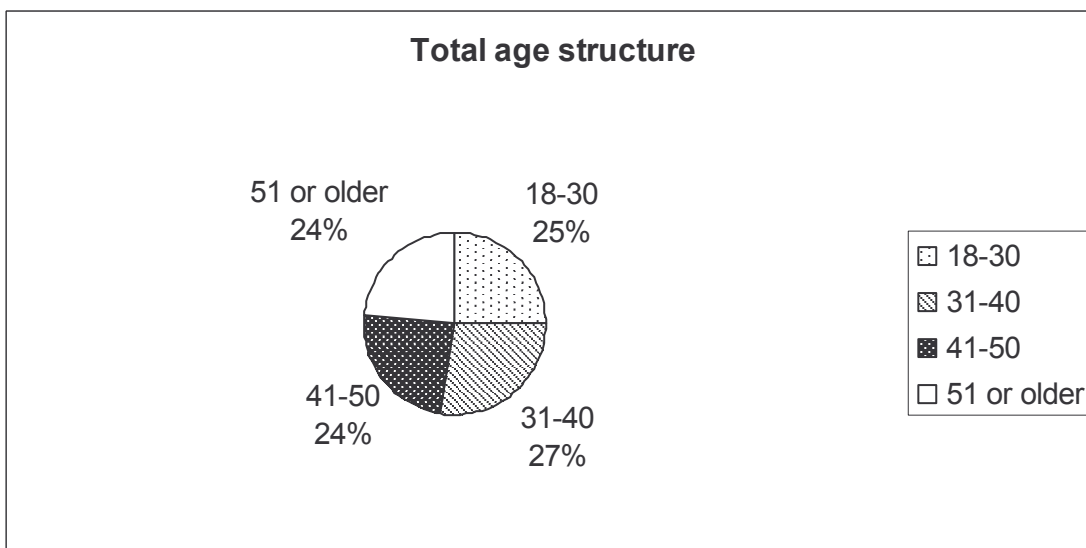24%

31-40
27%

⊡ 18-30
▨ 31-40
▦ 41-50
□ 51 or older

Figure 2. Diagram on age structure.

As mentioned before the author of this dissertation have chosen to interview students, families without children, families with children, families with shared custody, and senior citizens. See figure 3.
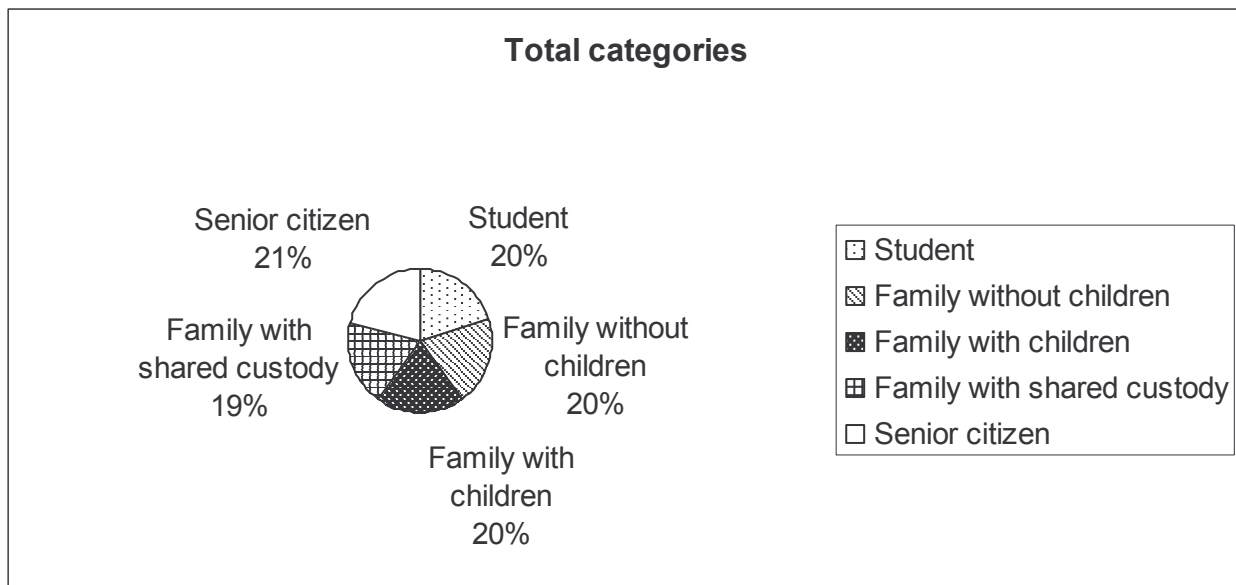

Figure 3. Diagram showing shares for each category.

3.2.1 Main interests

The question about the main interests gives you an idea about what the main interest are among the different categories. In other word this question shows factors that categorises different groups of people. For students, sport (22%), travelling (20%) and spending time with friends (19%) are the most required interests. Families without children are most interested in activities like travelling (22%), sending time with friends (18%) and sport (16%). Families with children have other priorities and interests like travelling (19%), spending time with family (19%). Families with shared custody are most interested in activities like travelling (22%), sport (17%) and spending time with family (17%). The category senior citizens are most interested in outdoor activities (23%) and spending time with family (27%).

3.2.2 Living situation

The result of the categories housing situation today and how they want to live is a very interesting question to discuss. The students the author has chosen to interview, 94% lived in rented flat and 6% lived in detached house. If the students had the opportunity to chose how they wanted to live, 62% had preferred to live in co-operative flat, 25% had chosen rented flat and 13% have preferred to live in detached house. Families without children 50% live in co-operative flat and 50% live in detached houses. If the category families with children had the opportunity to choose how they want to live instead, 100% had chosen to live in detached house. The category families with children showed that 94% lived in detached house and 6% lived in co-operative flat, and if they had the opportunity to chose how the wanted to live instead of how they live today, 100% had chose to live in detached house. Families with shared custody lived like, 66% lived in rented flat, 27% lived in detached house and 7% lived in co-operative flat. If the category families with shared custody had the chance to chose the exact home the want to live in, 80% had chosen to live in detached house and 20% had chosen to live in co-operative flat. The category senior citizens 76% lived in detached house, 18% lived in rented house and 6% lived in co-operative flat. 71% of the senior citizens had

preferred to live in detached house and 29% wanted to live in co-operative flat. See figure 4 and figure 5.

To summarise, it is obvious that people want to live in housing that is spacious and better. Students often live in rented flats, and the reason for that can be the housing suits them better economically. Families without children and families with children maybe have better economy so they can afford to live in detached houses. The living situation for families with shared custody and senior citizens are different. Families with shared custody maybe live in a detached house because they need the space for the children and senior citizens maybe live in detached house because they do not bother to move after the children have moved out, in other word the home is more like a place where you can collect memories from different phases of life.
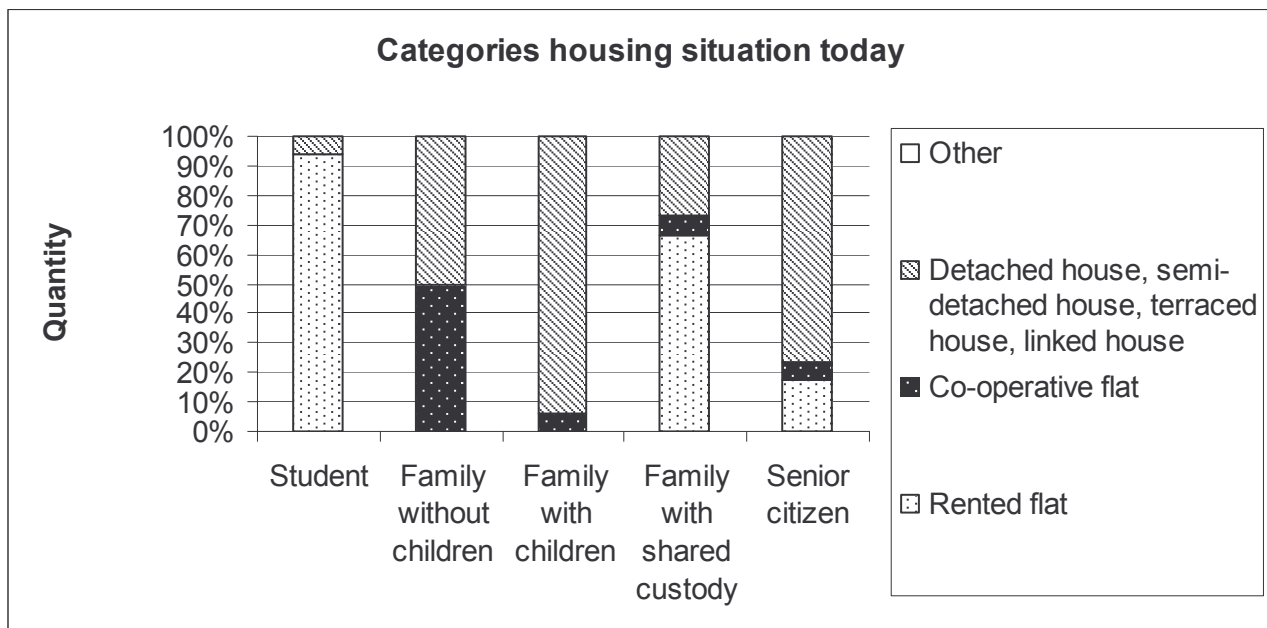

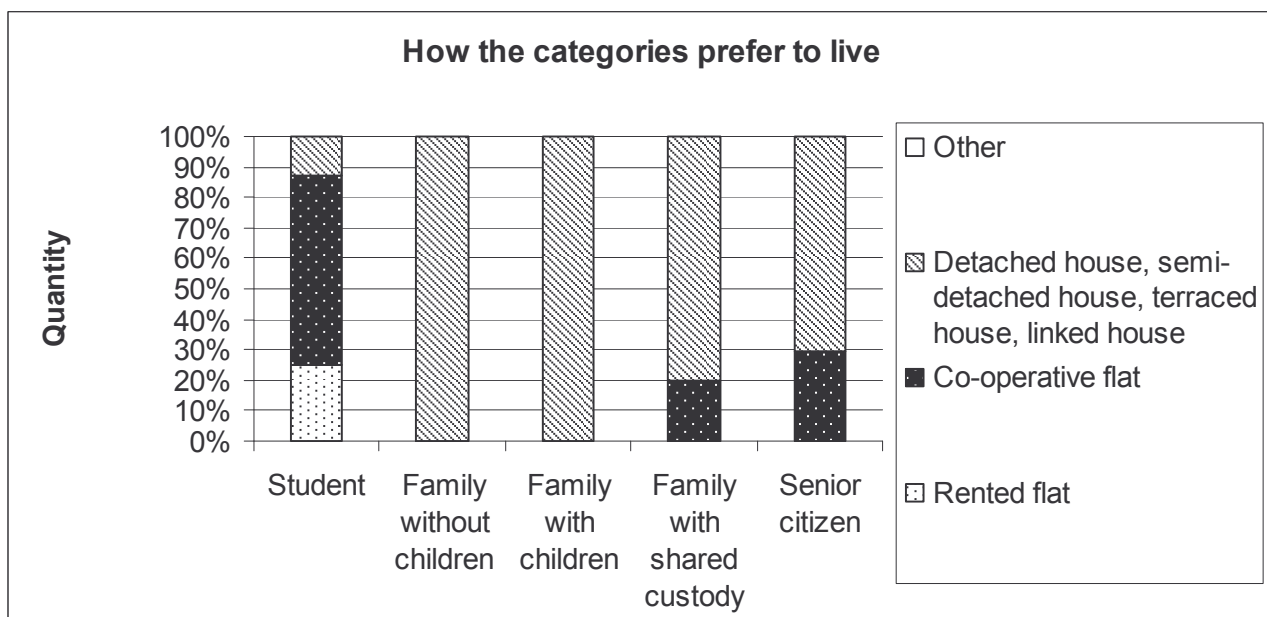Figure 4. Diagram on the categories housing situation today.

Figure 5. Diagram on how the categories prefer to live.

3.2.3 Required service benefits

When it comes to the factor of required service and what benefit the categories have with services it is different from category to category. The result of the questionnaire shows that 40% of the students think that the internet (broadband) is important, and 20% requires the opportunity to rent a party hall. Internet (broadband) and rent party hall is the two services that are the most required services among the students. From the category families without children, 40% think internet (broadband) is important and 14% think that rent extra storage place is important. These to services are the most beneficial service for the families without children. The category families with children think that internet (broadband) (40%), help with garden (30%), and help with cleaning (22%) are the most beneficial services for them. The result of the category families with shared custody also thinks that the internet (broadband) (34%) is an important service. 24% of families with shared custody consider that help with cleaning is beneficial for them. Senior citizens did not share the same opinion on the requirement on internet (broadband) as the other categories. 54% of the senior citizens wanted to have service like help with watching the housing while they where away from home, and 46% think that help with garden is a service they would have benefits of.

When you analyse the results, it is quite clear that internet (broadband) is the most popular and required service among the students, families without children, families with children, and families with shared custody. From previous researches that Industrifakta (2005) made shows that people that live in rented flats are most interested in service like rent party hall. The senior citizens maybe did not think internet is so important, because they are not so familiar with internet. The author of this dissertation believes that the requirement of internet will be popular among senior citizens in the future.

3.2.4 Required standard equipment for the housing

The requirements on equipment like refrigerator, freezer, oven and fan for the housing are almost the same among the categories. These equipments are the most important and required equipment among the categories. Students think that equipment like microwave (1%), dishwasher (2%) and washing machine (1%) are not important. Families without children on the other hand think that it is important with dishwasher (12%) and washing machine (14%). The only equipment they do not think should be standard for the housing equipments is microwave oven (2%). Families with children almost have the same requirements like families without children. Families with children think that it is important with dishwasher (13%) and washing machine (13%). 4% of the category families with children want microwave oven. Families with shared custody are one of the categories that prioritise the microwave oven (8%). They also think that equipments like dishwasher (11%) and washing machine (12%) is essential. Senior citizens are the only ones that think that all the equipments are important and should be standard in the housing. Equipment like microwave oven (11%), dishwasher (11%) and washing machine (13%) is popular equipments. Overall, the result shows that students do not require equipments like microwave oven, dishwasher and washing machine in same amount as the other categories. See figure 6.
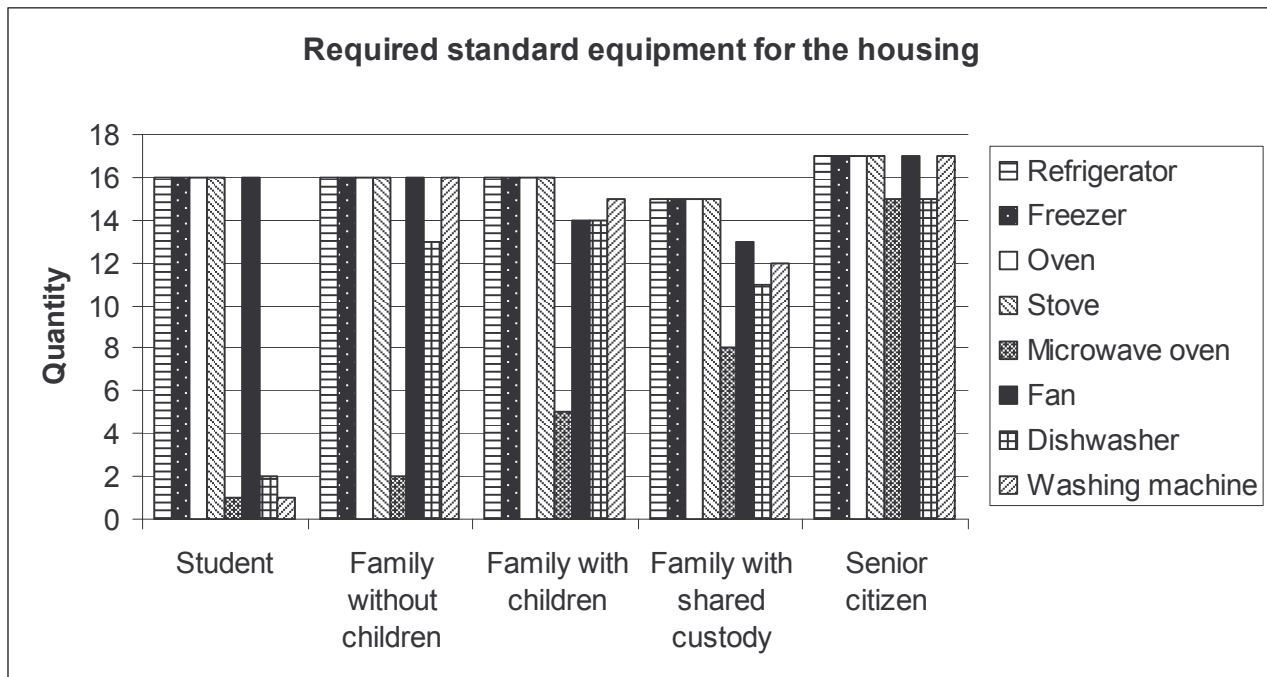
Figure 6. Diagram on required standard equipment for the housing.

3.2.5 Required brand on standard equipment for the housing

The question about required brand on standard equipments is an interesting question. Do people want to be able to choose the brand on standard equipment for the housing? The results from the questionnaire shows that 31% of students want to be able to choose the brand of standard equipment and 69% do not want to choose the brand of the equipments. Students do not think that brand of equipments is important because if they have to pay extra money for that kind of requirement. 81% of families without children want to be able to choose the brand of the equipments, and 19% do not care about the brand of the equipments. Families with children almost want the same requirements as the category families without children. 75% of the category families with children want to choose the brand of standard equipments, and 21% do not care about choosing the brand of equipments. Everyone belonging to the category families with shared custody wants to be able to choose the brand of standard equipments for the housing. 94% of the senior citizens answered yes on the question of required brand of the equipments for the housing. See figure 7.

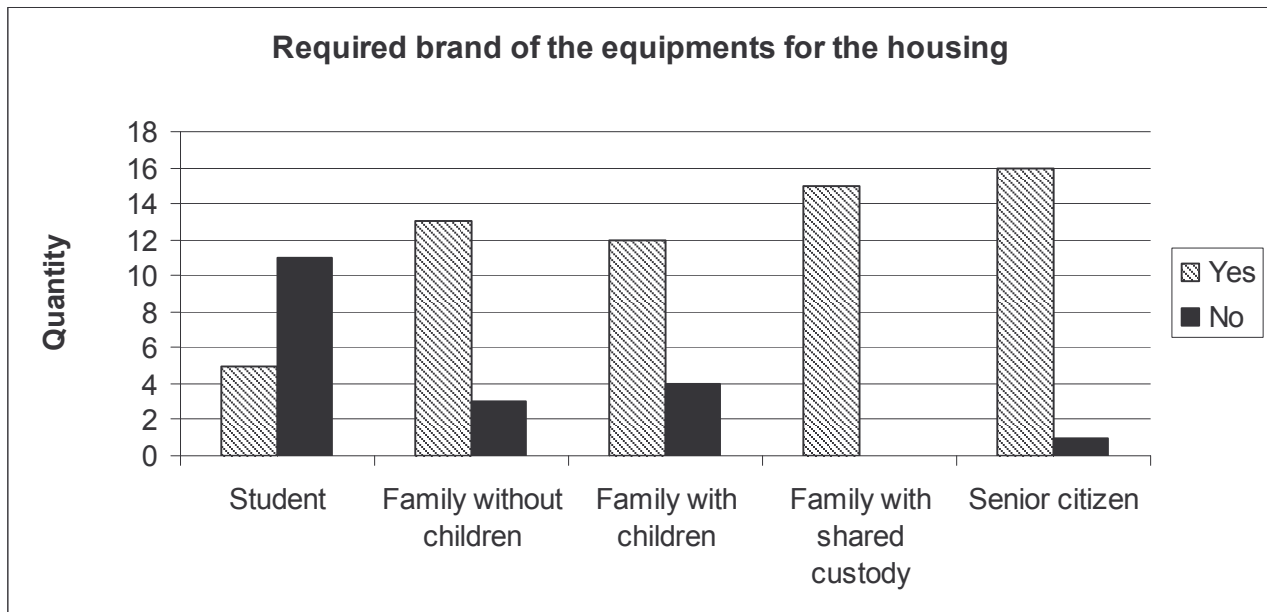**Required brand of the equipments for the housing**

Figure 7. Diagram on required brand of the equipments for the housing.

3.2.6 Required individual measurement and debit of electricity, heating and water

Individual measurement and debit of electricity is a service that is very required among all the categories. 69% of the students want to have individual measurement and debit of electricity. Only 31% of the students are not interested in individual measurement and debit of electricity. The reason for that can be that some students live in rented flats where the bill of electricity is included in the rent. Everyone belonging to the categories families without children and senior citizens answered yes on the question to individual measurement and debit of electricity. 94% of families with children think individual measurement and debit of electricity is important. 67% of the category families with shared custody want to have individual measurement and debit of electricity. See figure 8. To summarise, the interest of individual measurement and debit of electricity is a service that is very important among people today. Today the electricity price in Sweden is getting higher than it has been before, and that is maybe why people want to be able to individually measure how much electricity they use in their housing.
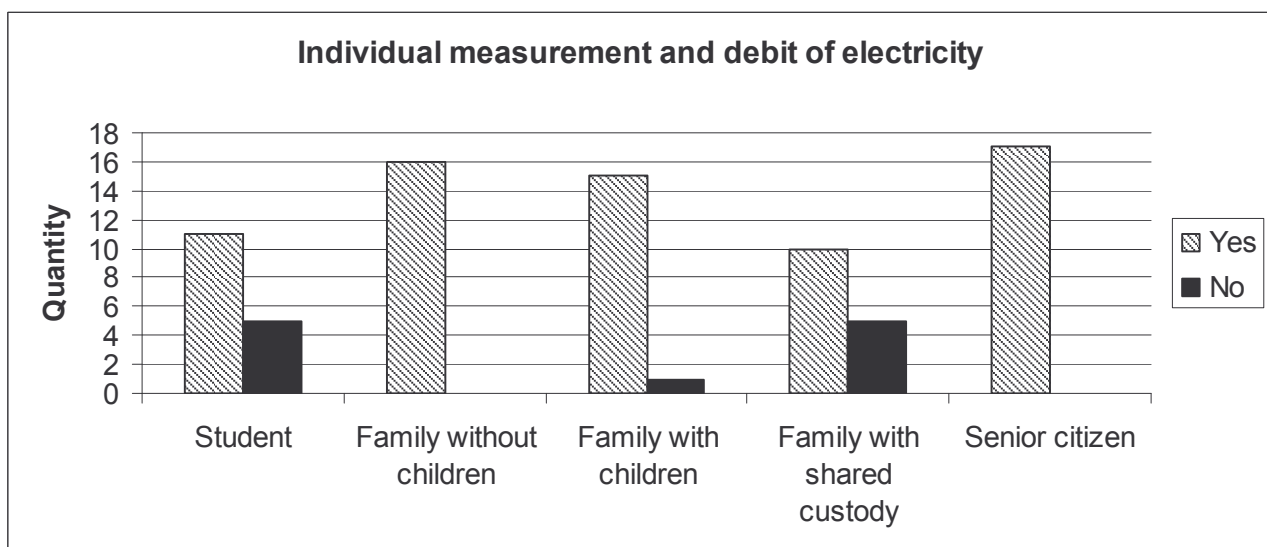
Individual measurement and debit of electricity

Figure 8. Diagram on individual measurement and debit of electricity.

Individual measurement and debit of heating and water is also a required service that people want. All the categories except the category families with shared custody think it is important with individual measurement and debit of heating and water. The categories like students, families without children, families with children and senior citizens that have answer yes on the question to individual measurement of electricity; have also answered yes to individual measurement and debit of heating and water. Families with shared custody think individual measurement and debit of heating and water is not important as individual measurement of electricity. 47% of the category families with shared custody answer yes to individual measurement of heating and water. 53% of families with shared custody answered no, so the difference between the answers is rather small. Overall, people want to be able to have service like individual measurement and debit of electricity, heating and water. See figure 9 and figure 10.
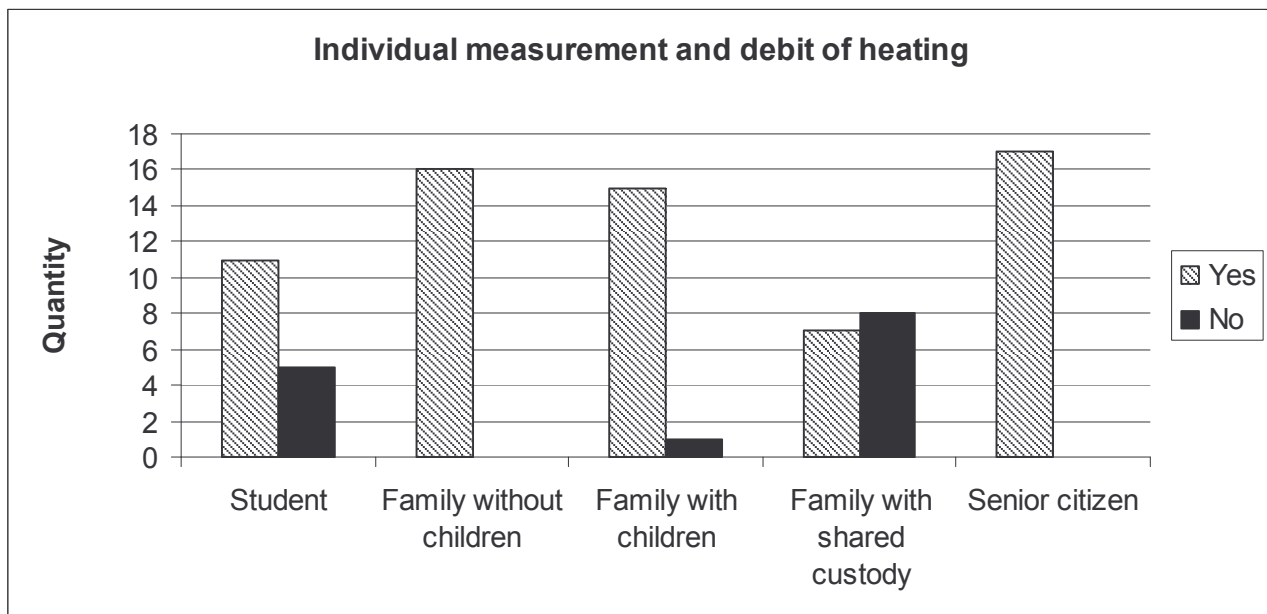

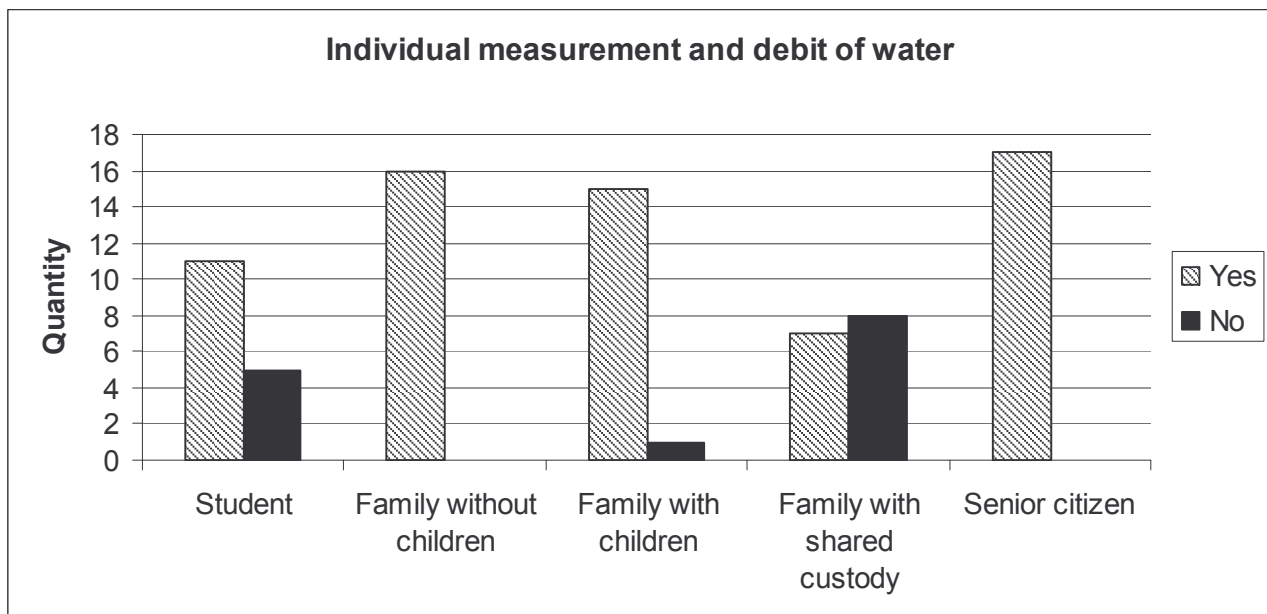Figure 9. Diagram on individual measurement and debit of heating.

Figure 10. Diagram on individual measurement and debit of water.

3.2.7 Total time the categories spend in their home on one day

How much time the categories spend in their home a normal day is a question the author have decided to ask because it is interesting to identify which categories that spends the most time in their home. The results show that all the students spend 12 hours in their home which is quite normal answers. 87% of families without children spend 12 hours in their home, and 13% spend 18 hours in their home. Most of the people that belong to the category families without children worked and studied. The category families with children, 19% spend 6 hours, 56% spend 12 hours and 25% spend 18 hours in their home. Families with children that have answered that they spend 12 hours in their home mostly work. Those who have answered they spend 18 hours are people that are unemployed which is understandable. It is strange that some of the families with children have answered they spend 6 hours in their home. It can be possible that people have misunderstood the question and therefore have answered wrong on this question. Most families with shared custody work, so it is not strange that 93% have answered they spend 12 hours at their home on one day. 7% of families with shared custody have answered they spend 18 hours in their home on one day. 47% of senior citizens spend 12 hours in their home on one day and 35% spend 18 hours. 18% of the senior citizens even spend 24 hours in their home and that can be understandable if the person is very old and weak. Most of the senior citizens for this research were in age of 51 or older. The senior citizen the author interview was not working so they had a lot of spare time. Overall, the results from this question are quite understandable. See figure 11.
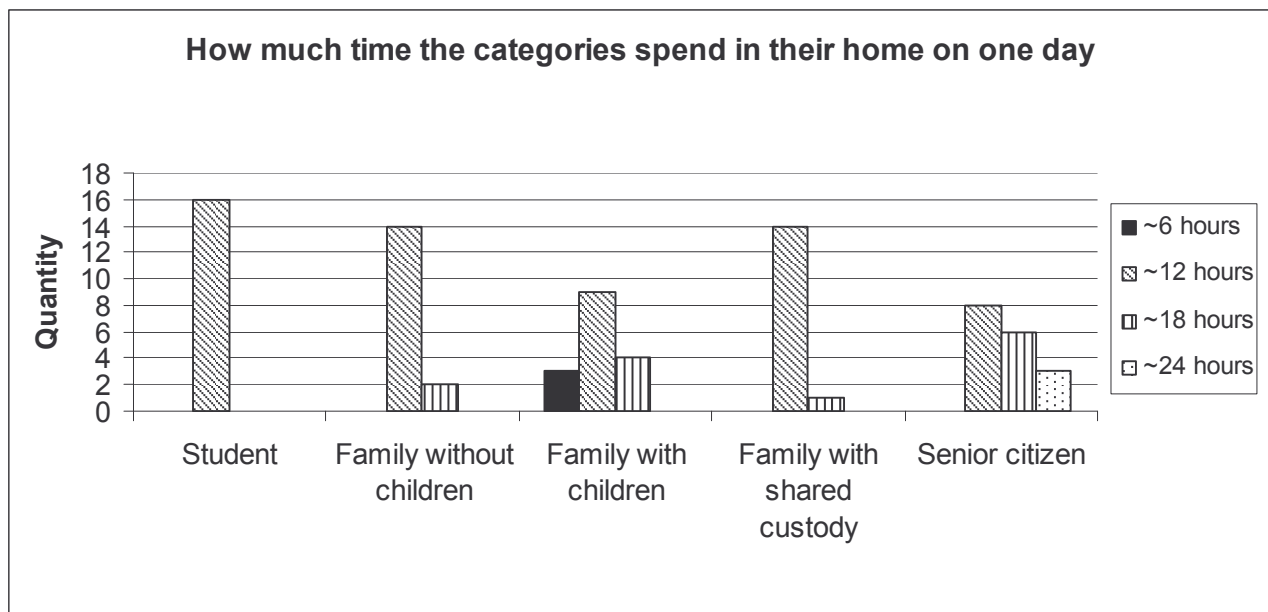

Figure 11. Diagram on how much time the categories spend in their home on one day.

3.2.8 Important factors when you move to a new housing - Immediate surroundings and range of service

All people have requirements and needs when they move to a new housing. Factors like immediate surroundings and range of service mean different to different people. The results from the questionnaires prove that people do not have same requirements and needs.

Students think that pleasant surroundings and to live close to nature is very important. The majority of students think that good car roads to the housing area are important, but not very important. To live close to a public transportation is very important, as to live close to a grocery store.

The majority of students think that to live close to centre is important. Some students even think to live close to centre is less important and unimportant. To live close to other shops is a service that is less important for the students. See figure 12.
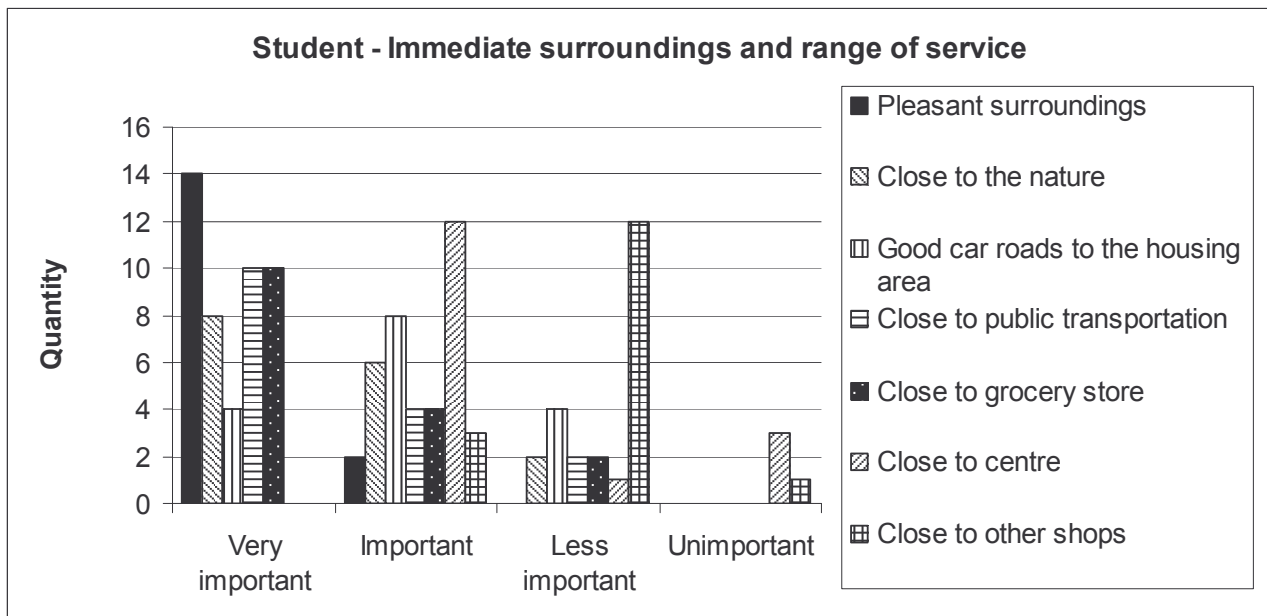

Figure 12. Diagram on students thoughts on immediate surroundings and range of service.

Peasant surroundings and to live close to the nature is very important to the category families without children. The thoughts on good car roads to the housing area are important, but not very important. Some families without children even think that good car roads to the housing area are less important. The majority of families without children wants live close to public transportation and think that it is important to live close to grocery store. On the other hand families without children consider that to live close to centre and to other shops are less important. See figure 13.
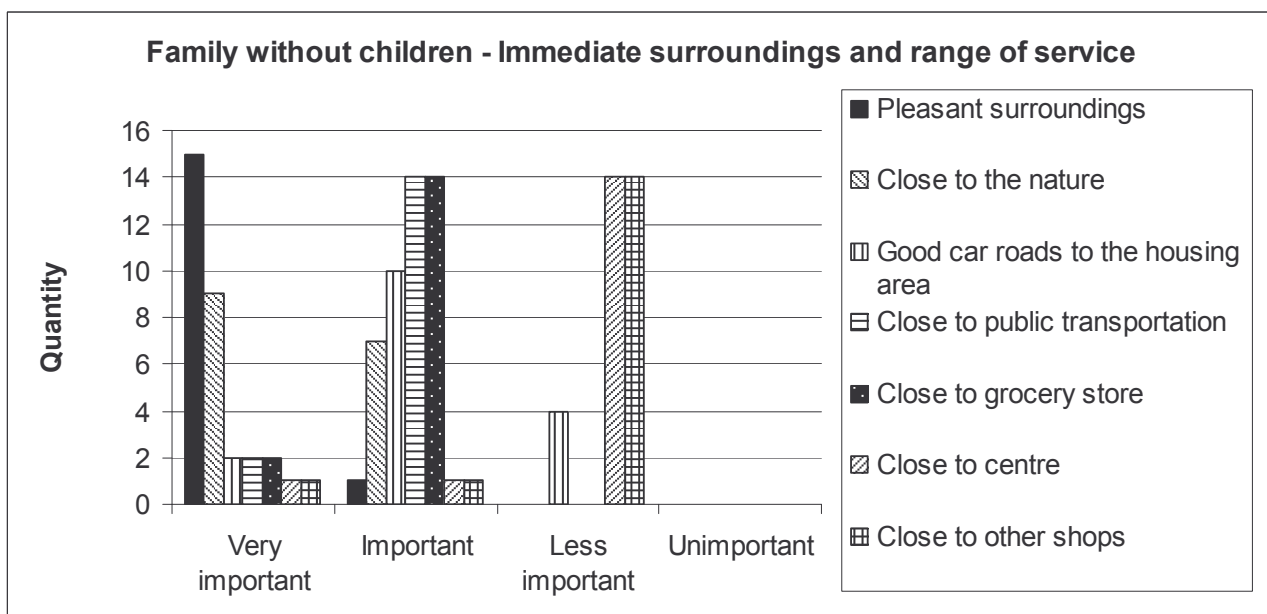

Figure 13. Diagram on families without children thoughts on immediate surroundings and range of service.

Families with children consider pleasant surroundings and to live close to the nature is very important. The majority of families with children think that to have good car roads is less important in the housing area. 50% of families with children think that public transportation is a service that is very important and the other 50% think that it is just important. The opinion to live close to a grocery store varies among the category families with children. 37% of families with children think that it is very important to live close to a grocery store, and 38% thinks it is important. 25% of families with children think it is less important to live close to a grocery store. The majority of families with children think it is less important to live close to centre. The results from the questionnaire shows that families with children want to live close to other shops and 25% think that it is very important. 37% of families with children think that to live close to other shops is important and 38% thinks it is less important. See figure 14. On the whole, the result of the questionnaire proves that all families with children do not have the same thoughts regarding immediate surroundings and range of service and the reason for that can be that people have different needs and requirements.
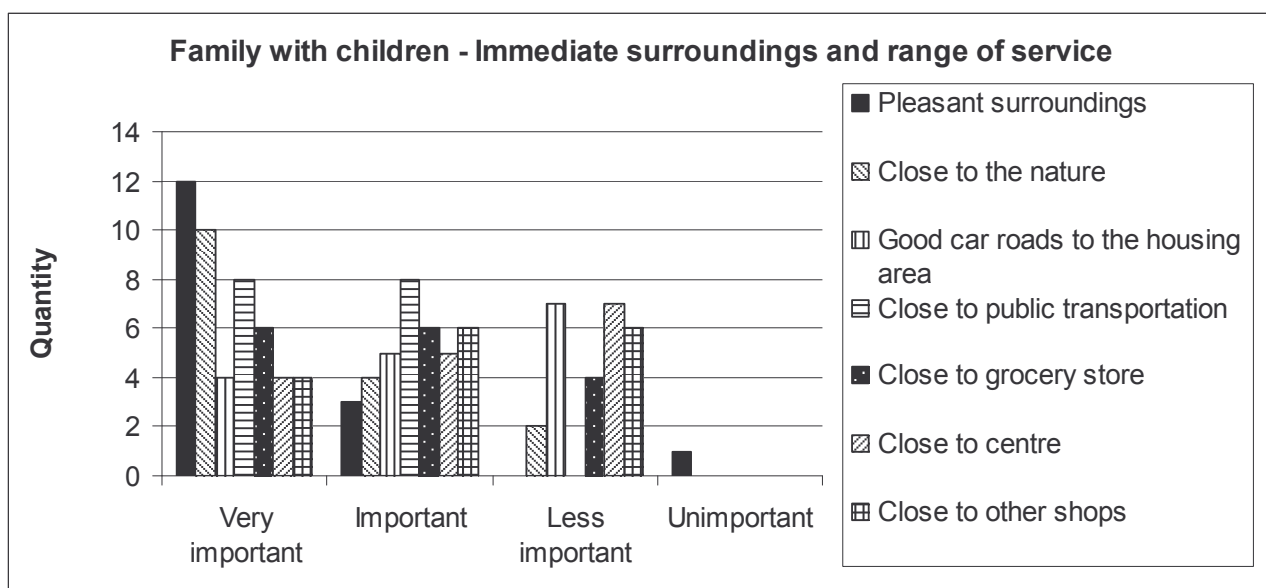

Figure 14. Diagram on families with children thoughts on immediate surroundings and range of service.

The majority of families with shared custody think that pleasant surroundings and to live close to the nature is very important. To have good car roads to the housing area is important for families with shared custody. The majority also thinks to live close to public transportations, grocery store, and centre and to other shops is also very important. Comparing to other categories, families with shared custody is the category were 73% thinks that to live close to other shops is very important. See figure 15.

Family with shared cutody - Immediate surroundings and range of service
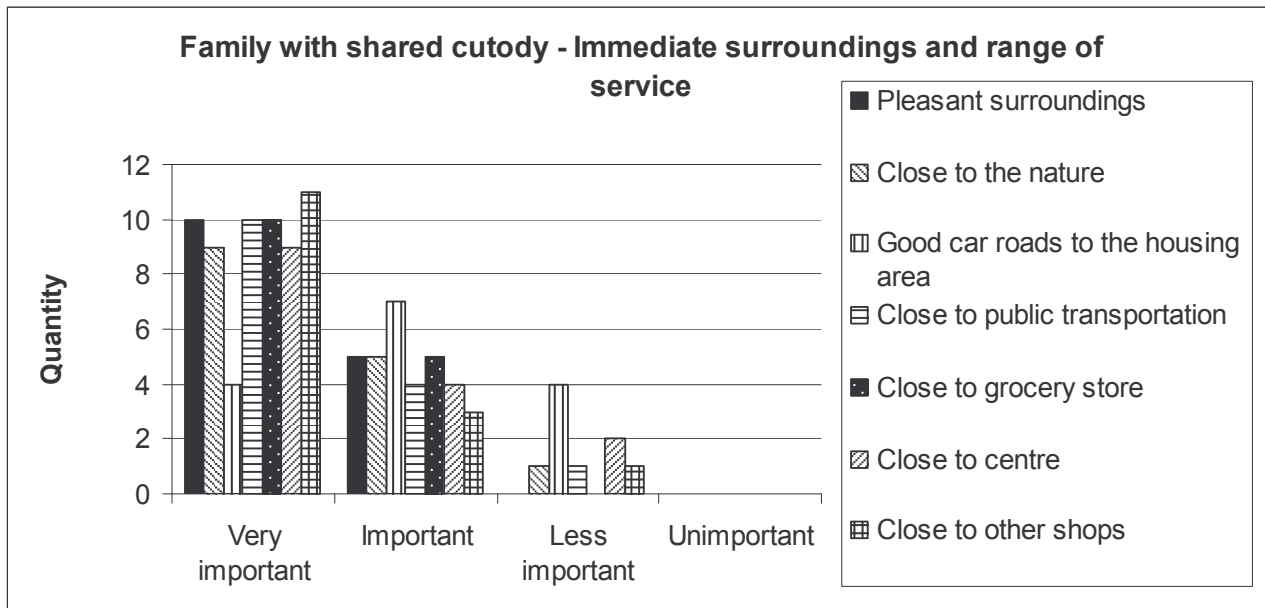

Figure 15. Diagram on families with shared custody thoughts on immediate surroundings and range of service.

Senior citizens like the other categories thinks that pleasant surroundings and to live close to the nature is very important. The majority of senior citizens think that good car roads to the housing area are important, but not very important. Like families without children, senior citizens think it is important to live close to public transportation. To live close to a grocery store is important and to live close to centre is very important. Senior citizens also think to live to other stores is an important factor. See figure 16.

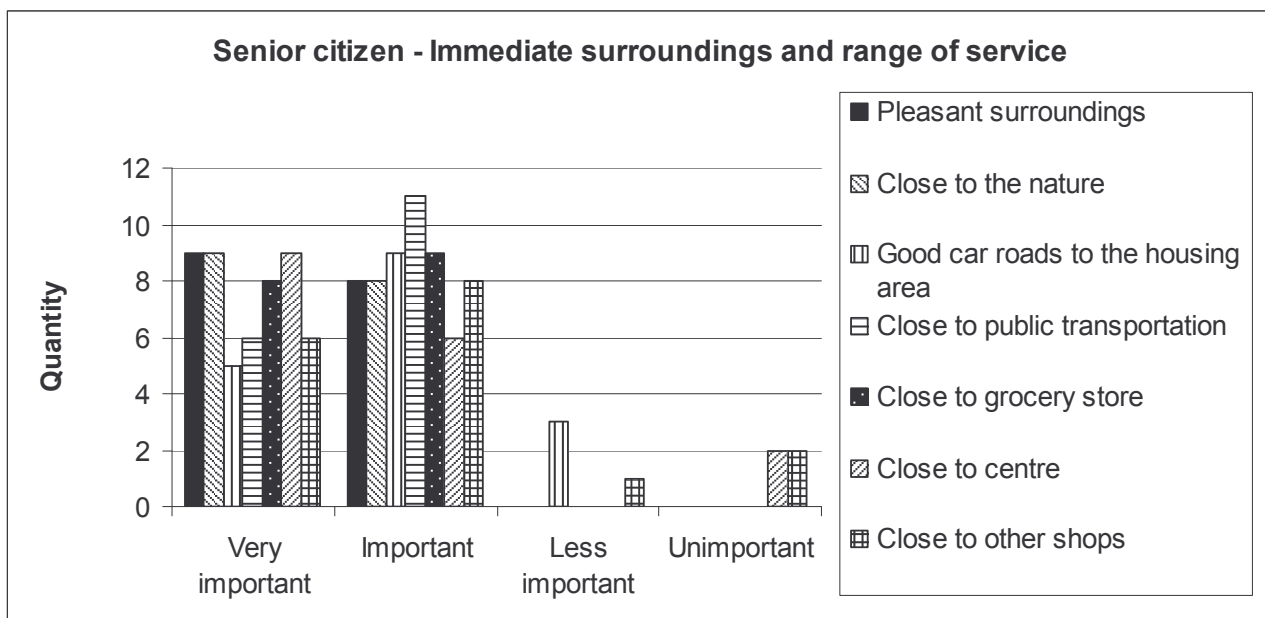**Senior citizen - Immediate surroundings and range of service**

Figure 16. Diagram on senior citizens thoughts on immediate surroundings and range of service.

Industrifakta (2005) made interviews with 1200 households, and their results show that pleasant surroundings was the most required immediate surroundings and range of service among the people. This research also proves that pleasant surroundings are important to people in their living environment.

3.2.9   Important factors when you move to a new housing - Outdoor area and buildings

Factors like outdoor area and buildings are important factors when you move to a new housing, but how important is it to the different categories? The results from the questionnaires show that some people have the same requirements and needs and some people do not. From previous research that Industifakta (2005) has made shows that green space and leafy in the housing area is most important to the tenants.

The results from this research shows that the majority of students think that green space and leafy area, peaceful and quiet in the housing area and little traffic in the housing area is important. The factors the students think is less important are to have mixed, beautiful buildings, environment suitable for children, attractive housing area and most low-rise buildings. Students think to have neighbours pretty much the same as them are less important and some even think it is unimportant. Safe stay in the housing area is a factor the students consider as very important. Overall, it is quite understandable that students think that environment suitable for children are less important, because most of the students are young and do not have any children. To live in an attractive housing area is also a factor that is less important to students, and even that is reasonable because most of students do not earn so much money. See figure 17.
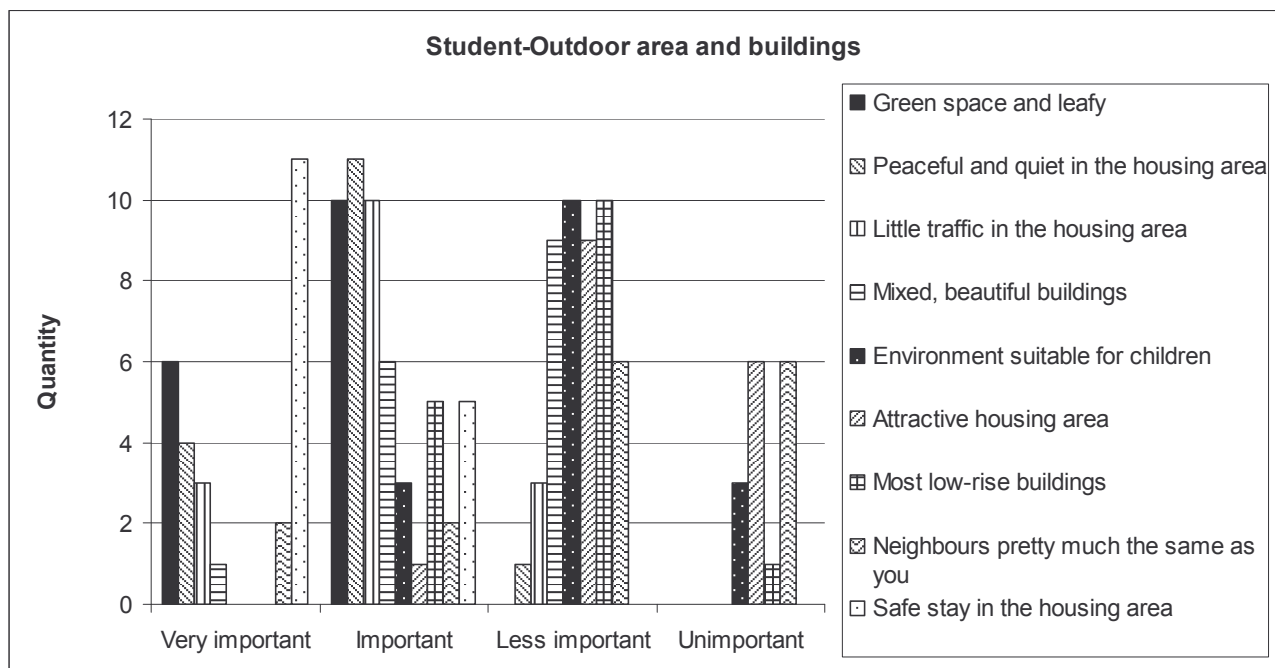

Figure 17. Diagram on students thoughts on outdoor area and buildings.

The majority of the category families without children think that green space and leafy area, peaceful and quiet in the housing area, and little traffic in the housing area is important. Most of families without children think it is very important with mixed and beautiful buildings. To live in an environment suitable for children is important to families without children and that is reasonable. Families without children also think that is important to live in an attractive area and some even think it is unimportant. To live in an area with most low-rise buildings is less important to families without children. The majority of families without children think that it is less important to live with neighbours pretty much the same as them. To have a safe stay in the housing area is very important to families without children. See figure 18.
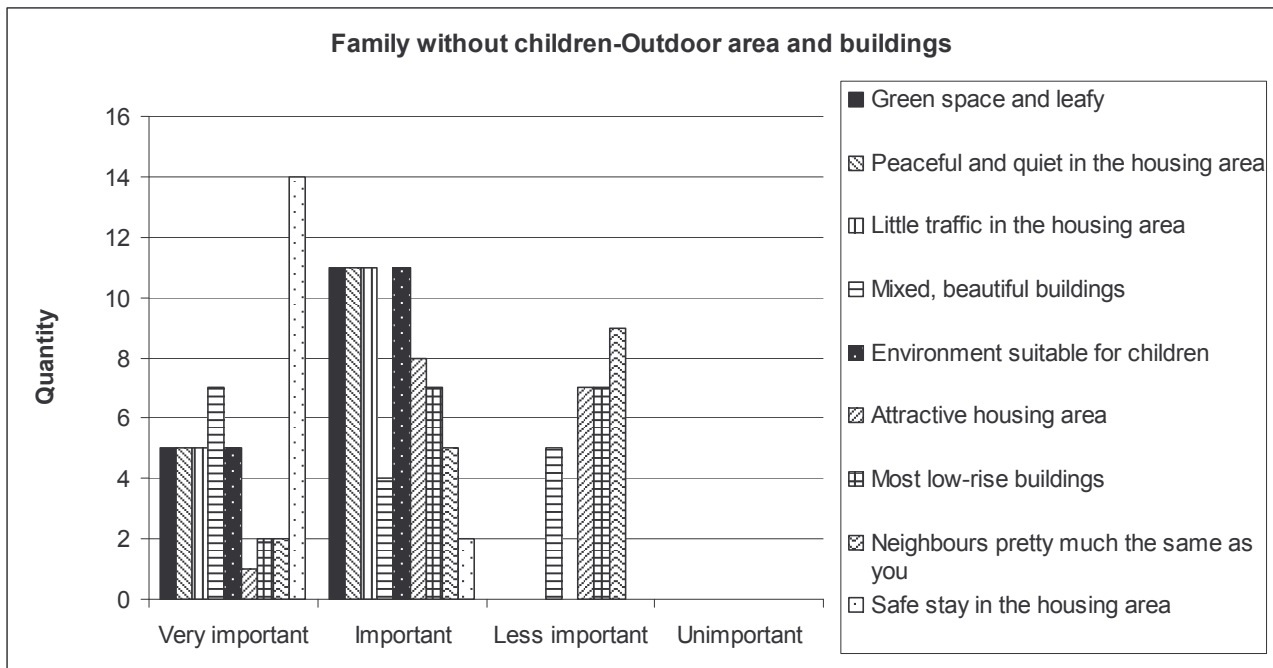
Figure 18. Diagram on families without children thoughts on outdoor area and buildings.

The category families with children consider green space and leafy area and to live in peaceful and quiet area is very important. To live in an area with little traffic is important to families with children. Families with children also consider that environment suitable for children is very important. To live in an attractive housing area is important for the category families with children. The results from the questionnaire show that families with children have mixed thoughts on most low-rise buildings. Most of families with children want to live with neighbours pretty much the same as them. Families with children consider safe stay in the housing area as very important. See figure 19.
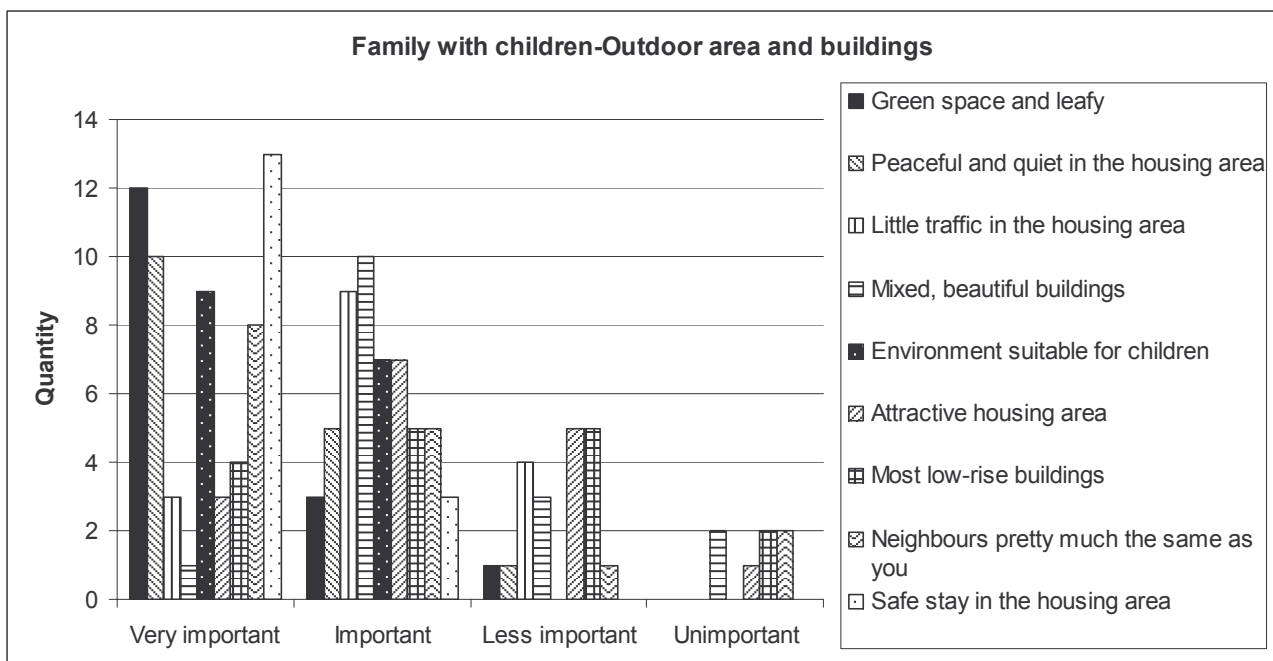

Figure 19. Diagram on families with children thoughts on outdoor area and buildings.

The category families with shared custody think most of the factors considering outdoor area and buildings are important. The factors they think is most important are: green space and leafy area, peaceful and quit in the housing area, little traffic in the housing area, environment suitable for children, and safe stay in the housing area. The majority of families with shared custody also think that attractive housing area, most low-rise buildings in the area, and to live with neighbours pretty much the same as them is important. Overall, families with shared custody think that outdoor area and buildings is an important factor when they move to a new housing. See figure 20.
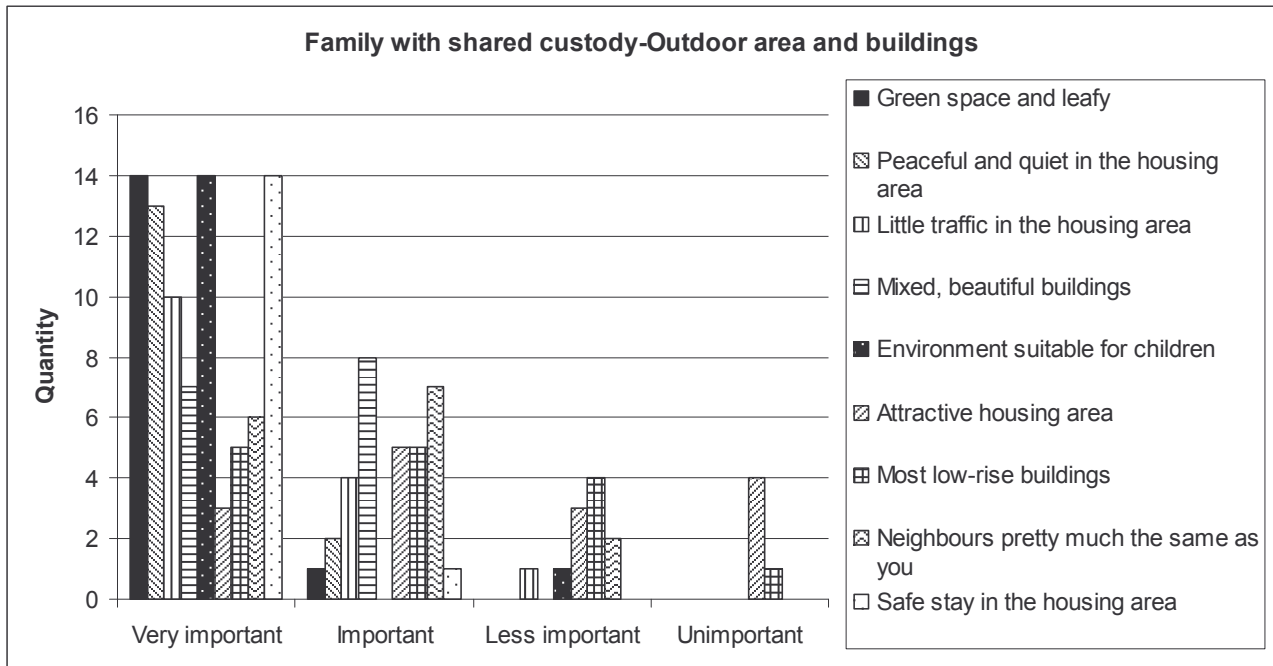

Figure 20. Diagram on families with shared custody thoughts on outdoor area and buildings.

The majority of senior citizens the author has interviewed think that outdoor area and buildings is an important factor. The most important factors for senior citizens are: peaceful and quiet in the housing area and safe stay in the housing area. The less important factors for senior citizens are environment suitable for children. See figure 21.
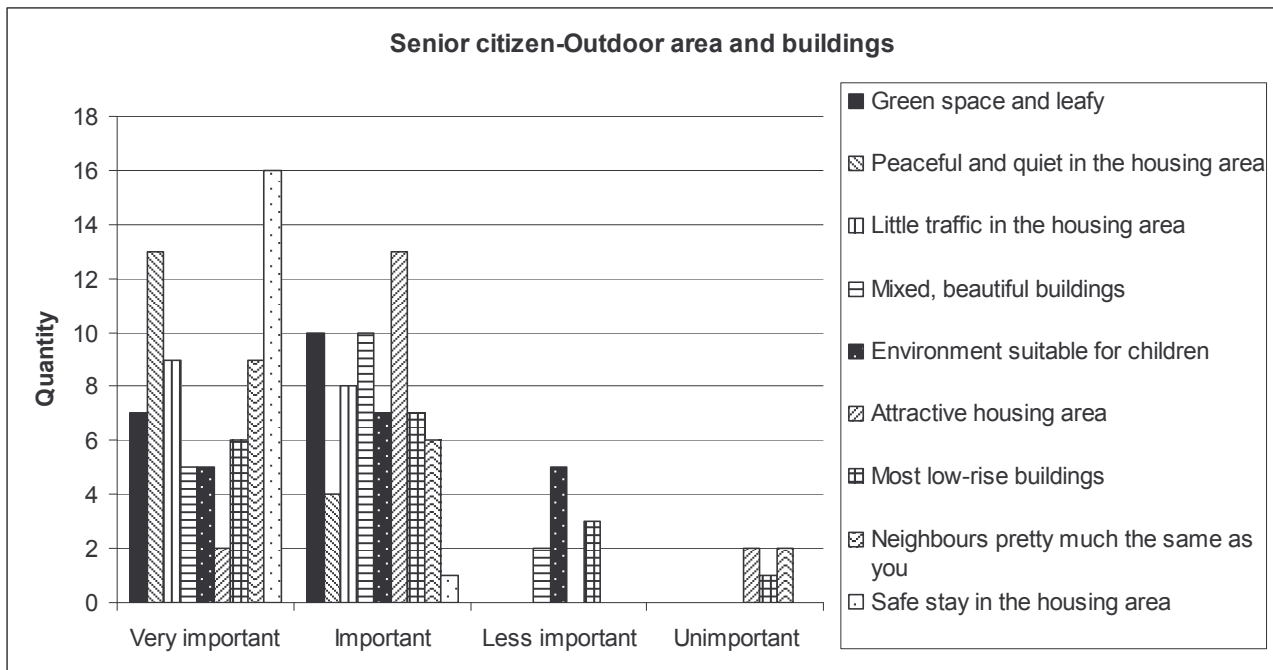
Figure 21. Diagram on senior citizens thoughts on outdoor area and buildings.

3.2.10 Important factors when you move to a new housing - Building functions and standard

Building functions and standard is a factor that is important to people when they move into a new housing. People want to live in housing where they can feel like home. When we look backwards we can see that the living standard has changed a lot. Today, we think the housing as function separated rooms and we often talk about bedroom, living room, and study room etc. Even on this point people have different thoughts and opinions on how they want to live.

The students the author has interviewed have mixed feelings on building functions and standard. To have plenty of wardrobes and storage, and security for housebreaking is very important to students. The majority of students also think that windows at least in two points of the compass, spacious balcony/outdoor area, high standard in the bathroom, high standard in the kitchen, spacious kitchen and bathroom, high standard in the whole house, and maintenance of real-property unit is important. The factors students think is less important are; compacted and well used housing areas, separate laundry room, separate study, and open building plan. To have a spacious bedroom and separate kitchen is important to some students and less important for some students. See figure 22.
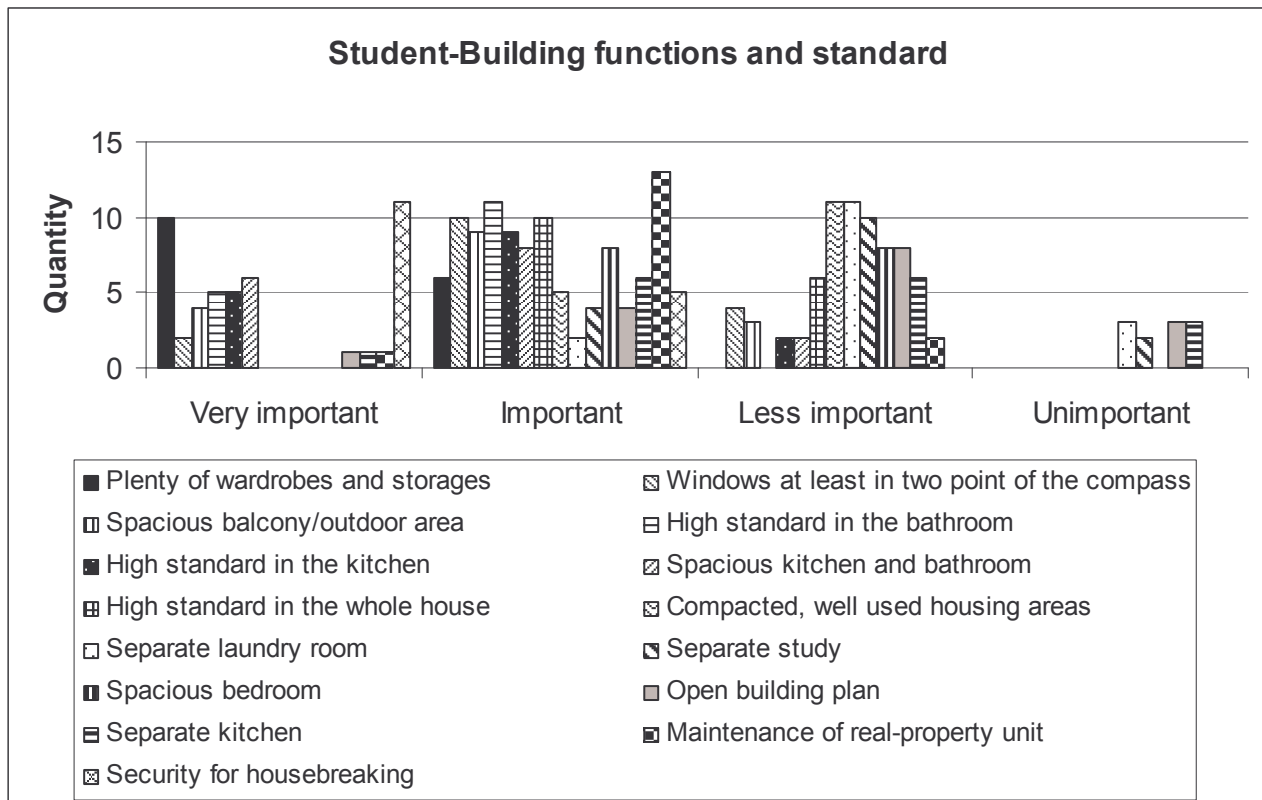
Student-Building functions and standard

Figure 22. Diagram on students thoughts on buildings functions and standard.

Most of families without children consider that factors like; plenty of wardrobes and storages, windows at least in two point of the compass, spacious balcony/outdoor area, maintenance of real-property unit, and security for housebreaking is very important. Other building functions and standards that are important to families without children are high standard in the bathroom, high standard in the kitchen, spacious kitchen and bathroom, and high standard in the whole house. The majority of families without children think that compacted and well used housing areas, separate laundry room, separate study, spacious bedroom, open building plan, and separate kitchen is less important factors. See figure 23.

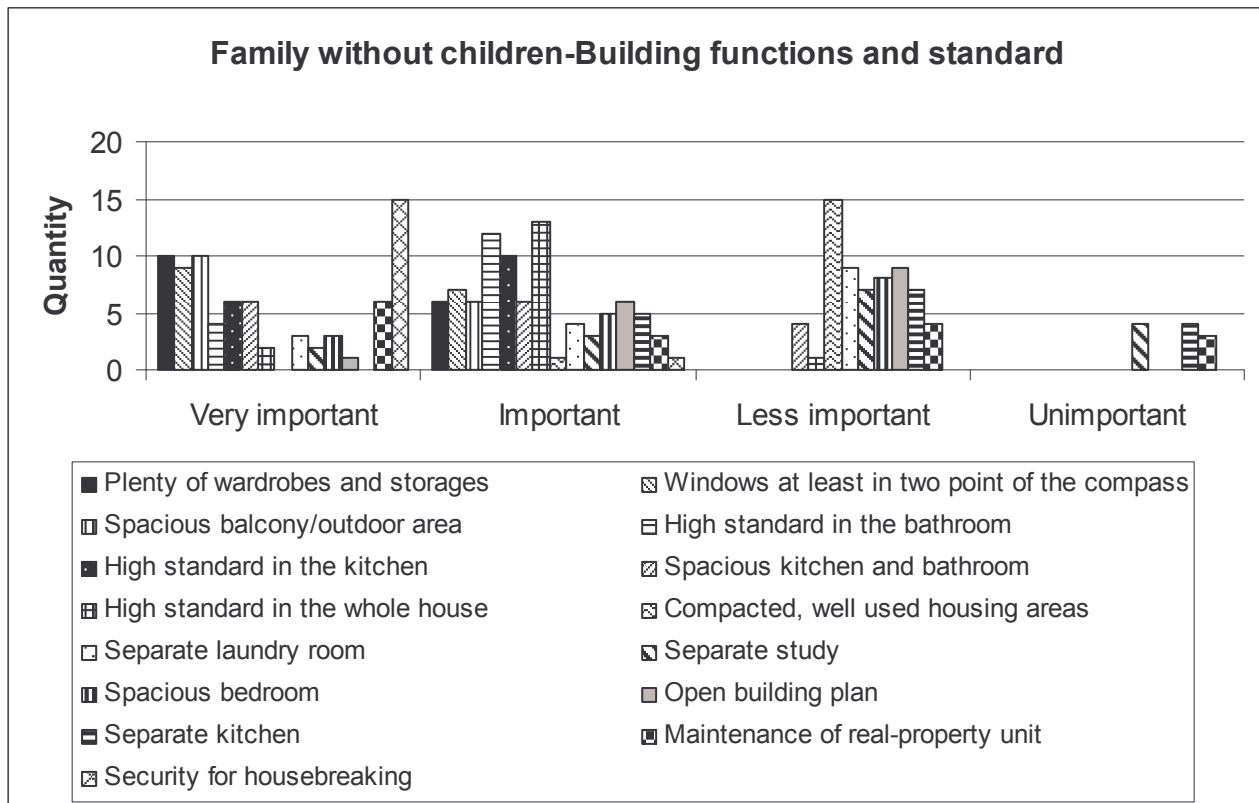**Family without children-Building functions and standard**

Figure 23. Diagram on families without children thoughts on buildings functions and standard.

Families with children think plenty of wardrobes and storages, windows at least in to point of the compass, spacious balcony/outdoor area, high standard in the bathroom, high standard in the kitchen, spacious kitchen and bathroom, and security for housebreaking is very important factors. This category also thinks that high standard in the whole house, compacted and well used housing areas, and separate laundry room are important. Less important building functions and standards for families with children are; separate study, spacious bedroom, open building plan, separate kitchen, and maintenance of real-property unit. The thoughts and opinions the families with children have concerning building functions and standard are quiet understandable. For example, families with children in this research mostly lived in detached houses and therefore a factor like maintenance of real-property unit is not important for them. See figure 24.
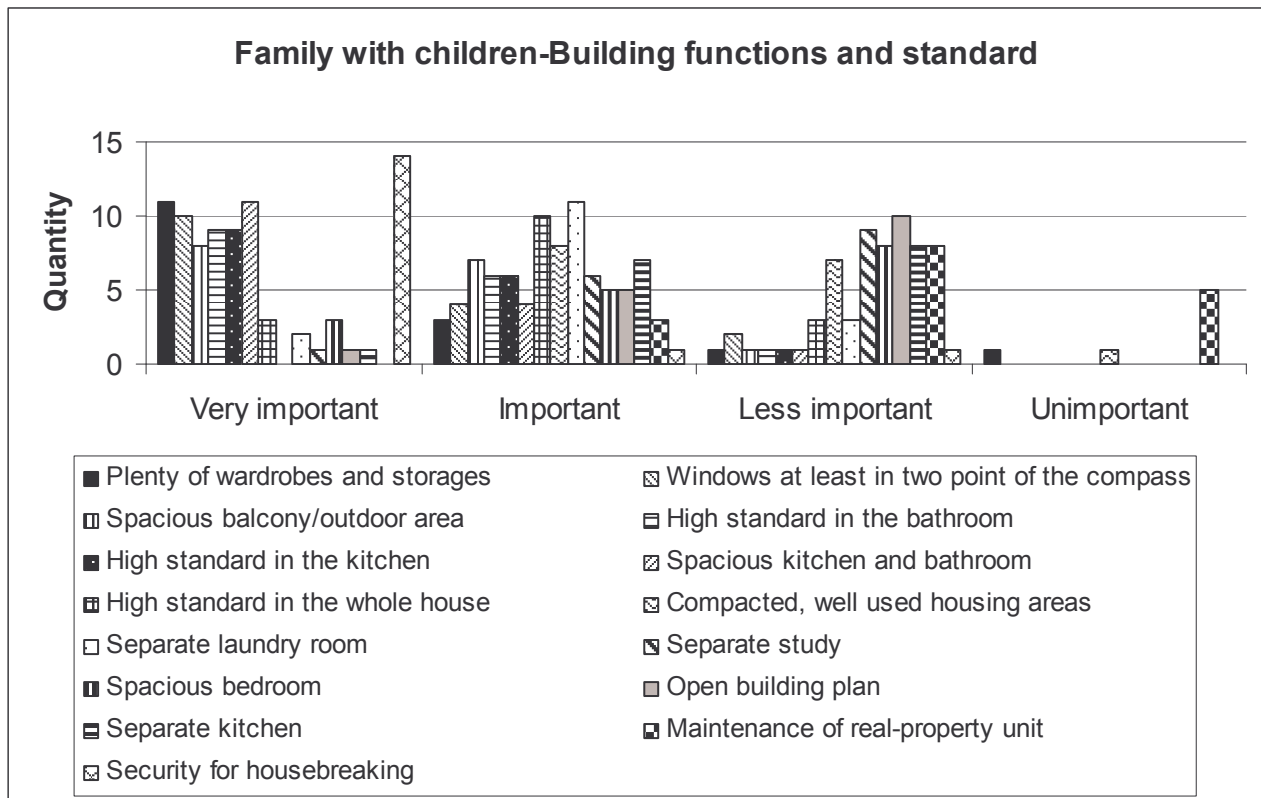
Figure 24. Diagram on families with children thoughts on buildings functions and standard.

The majority of families with shared custody think that all building functions and standard are very important. To have windows at least in two points of the compass and compacted and well used housing areas is a factor that is less important for families with shared custody. See figure 25.
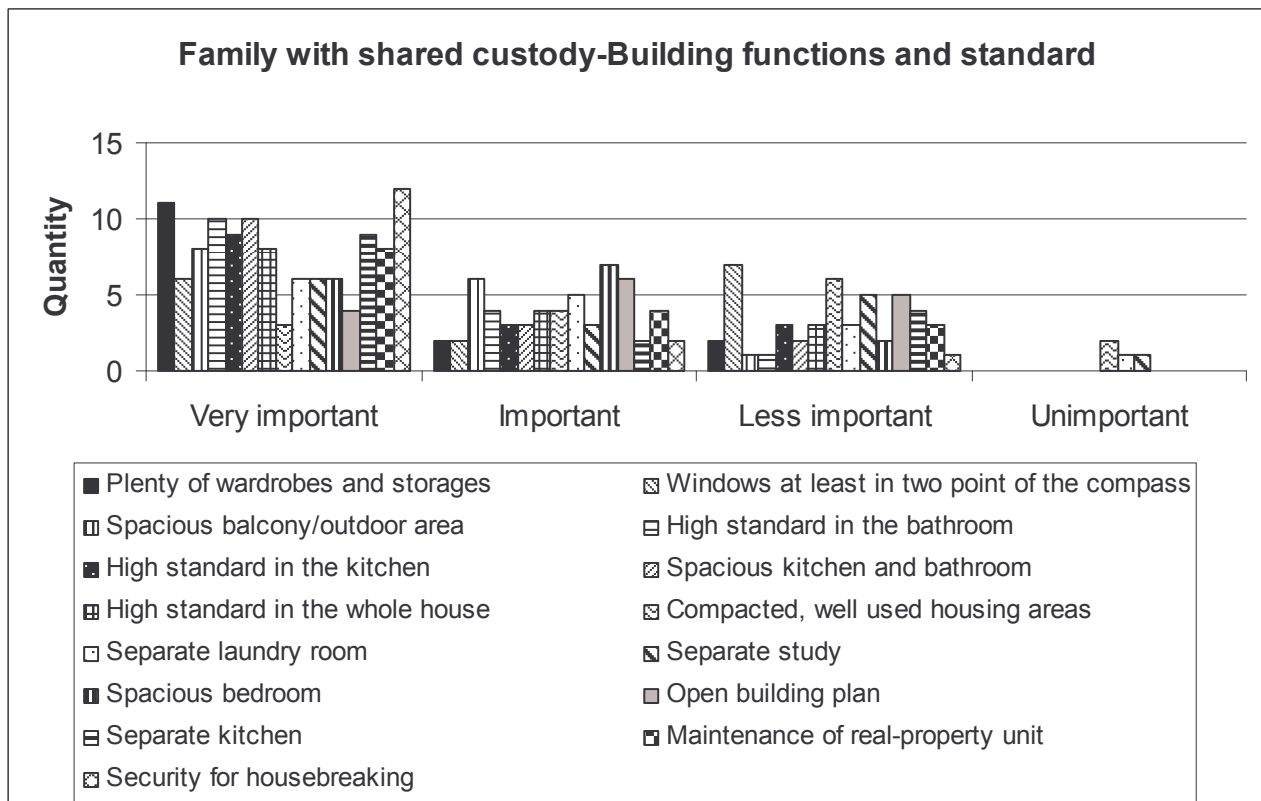

Figure 25. Diagram on families with shared custody thoughts on buildings functions and standard.

The majority of senior citizens think that all the building functions and standard are important. Like the other categories, security for housebreaking is a factor the senior citizens think is very important. Most of senior citizens think open building plan is a less important building function and some even think it is unimportant. See figure 26.

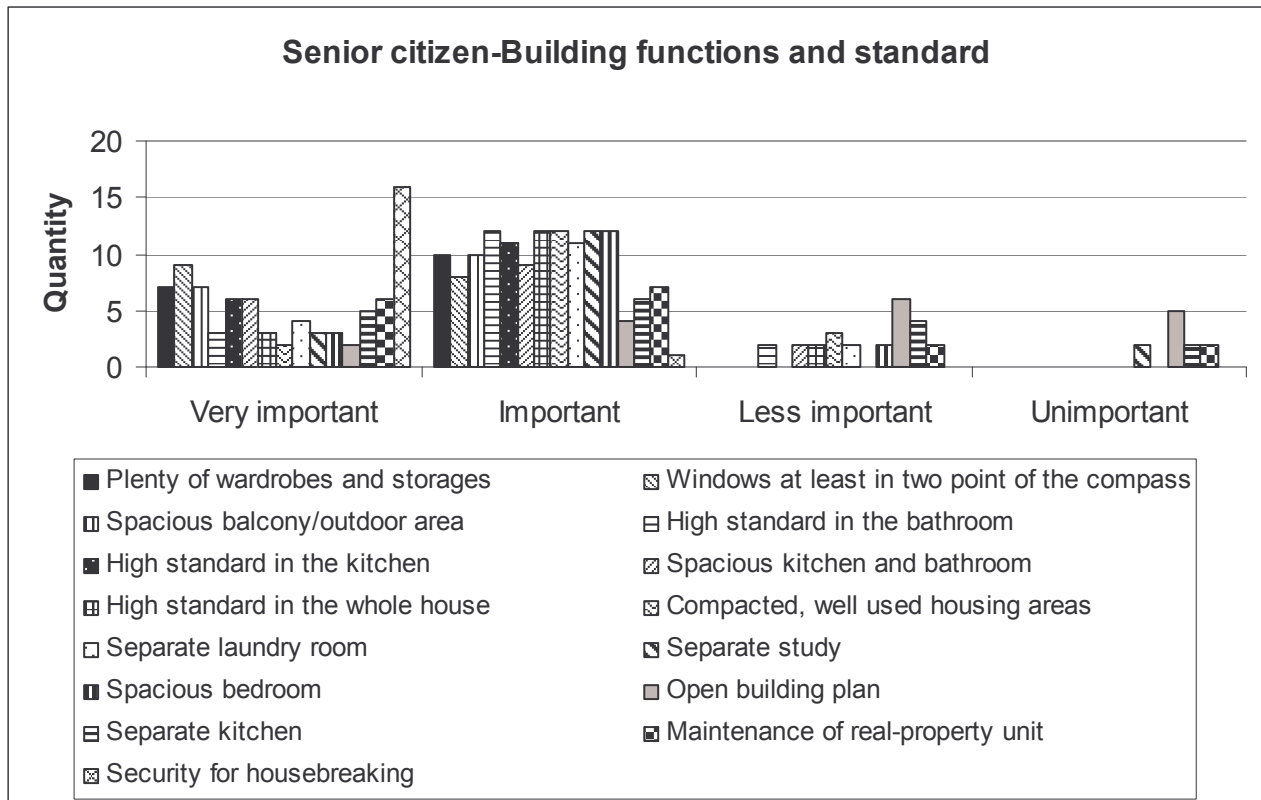**Senior citizen-Building functions and standard**

Figure 26. Diagram on senior citizens thoughts on buildings functions and standard.

From earlier research that Industifakta (2005) has made shows that building functions and standard such as plenty of wardrobes and storages and high standard in the bathroom are most important to people when they move to a new housing. This research on the other hand shows that people are most interested in building functions and standard such as security for housebreaking. The categories such as families with children and families with shared custody also think that plenty of wardrobes and storages are important factor when they move to a new housing.

3.2.11 Important factors when you move to a new housing - Interior decoration

Interior decoration is a crucial factor for some people and for some people it is not. The author of this dissertation believes that interior decoration is important for those people that are interested in interior decoration. It is obvious that housing mean different for different people. As mentioned before every individual have different priorities in life and interior decoration can make a huge effect on people's wellbeing in the housing. The main point with the housing is that every human being wants to have safety, possession, accessibility. The result from Industifakta (2005) shows that the majority of people think interior decoration is important. The most required interior decoration people wanted to have influence on was colour and wallpaper.

The majority of students on this research think interior decoration such as colour and wallpaper, interior for rooms and floor materials is very important. Other important interior decoration is cupboard and other kitchen interior, wardrobes and storage, refrigerator, freezer and machines, doors, and interior for bathroom. See figure 27.

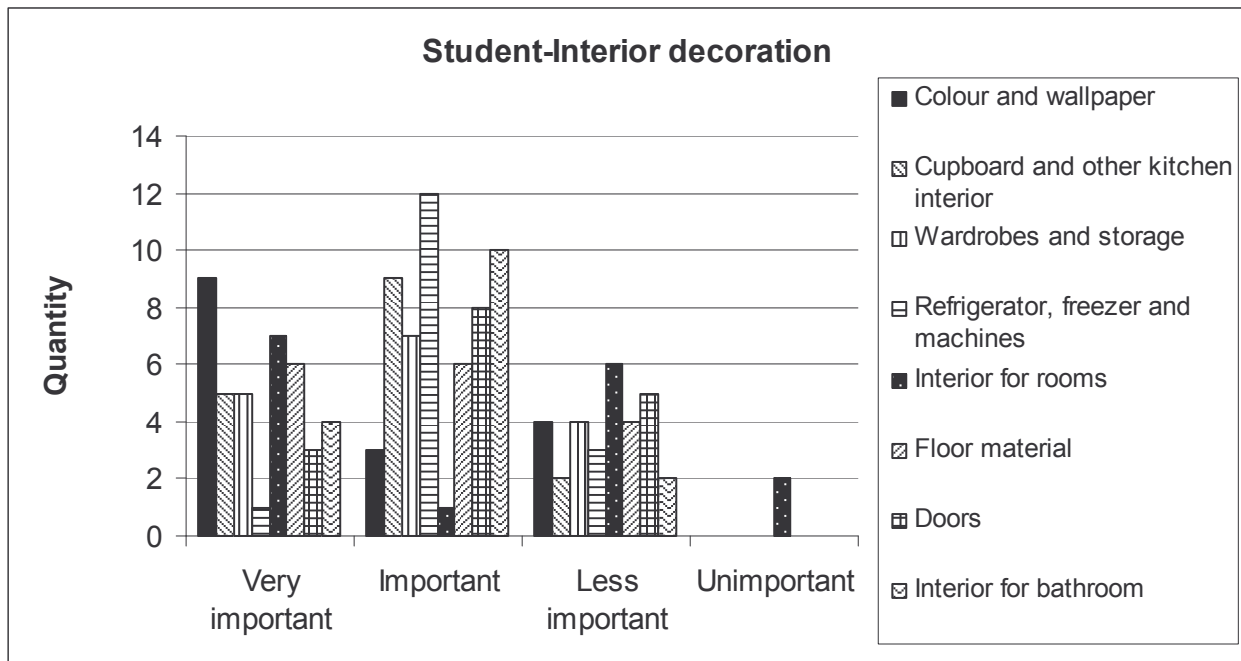**Student-Interior decoration**

Figure 27. Diagram on students thoughts on interior decoration.

Most of the category families without children think interior decoration is an important factor when they move to a new housing. Interior decoration such as colour and wallpaper, cupboard and other kitchen interior, wardrobes and storage, refrigerator, freezer and machines, interior for rooms, floor material, doors, and interior for bathrooms is important for families without children. A minor majority think that floor material, doors, and interior for bathroom are less important. See figure 28.
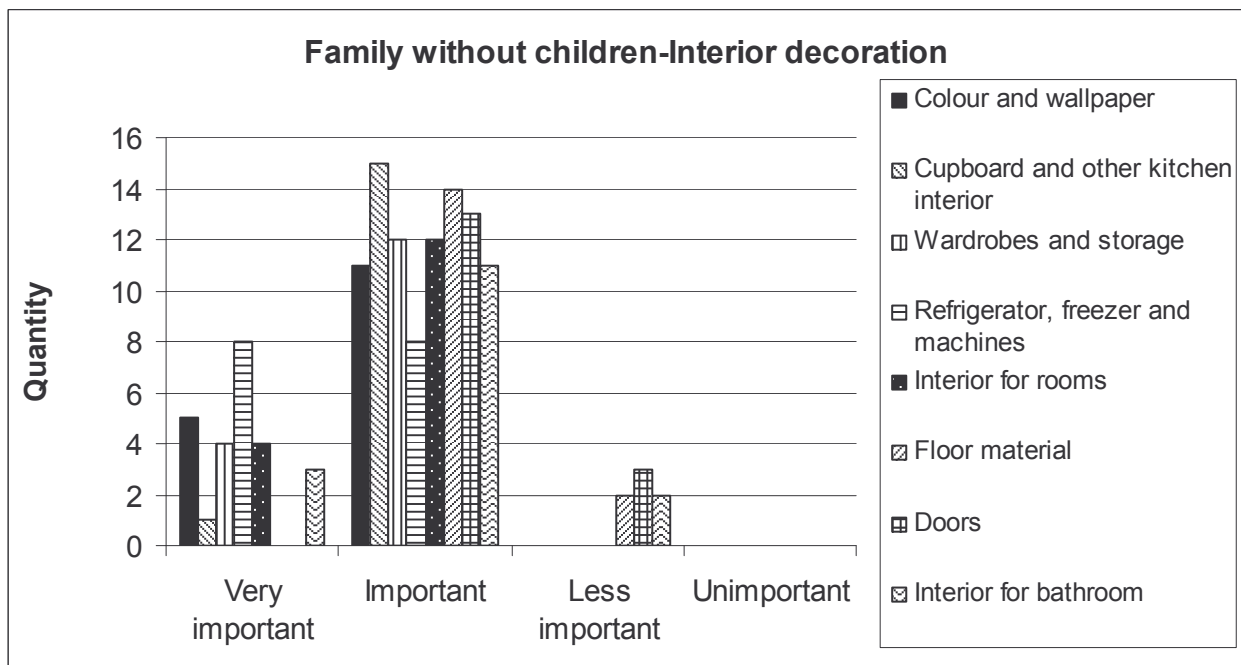
Family without children-Interior decoration

Figure 28. Diagram on families without children thoughts on interior decoration.

Families with children overall consider interior decoration as an important factor. Most of families with children think colour and wallpaper, cupboard and other kitchen interior, wardrobes and storage, refrigerator, freezer and machines, interior for rooms, floor material, doors, and interior for bathrooms are important factors. See figure 29.
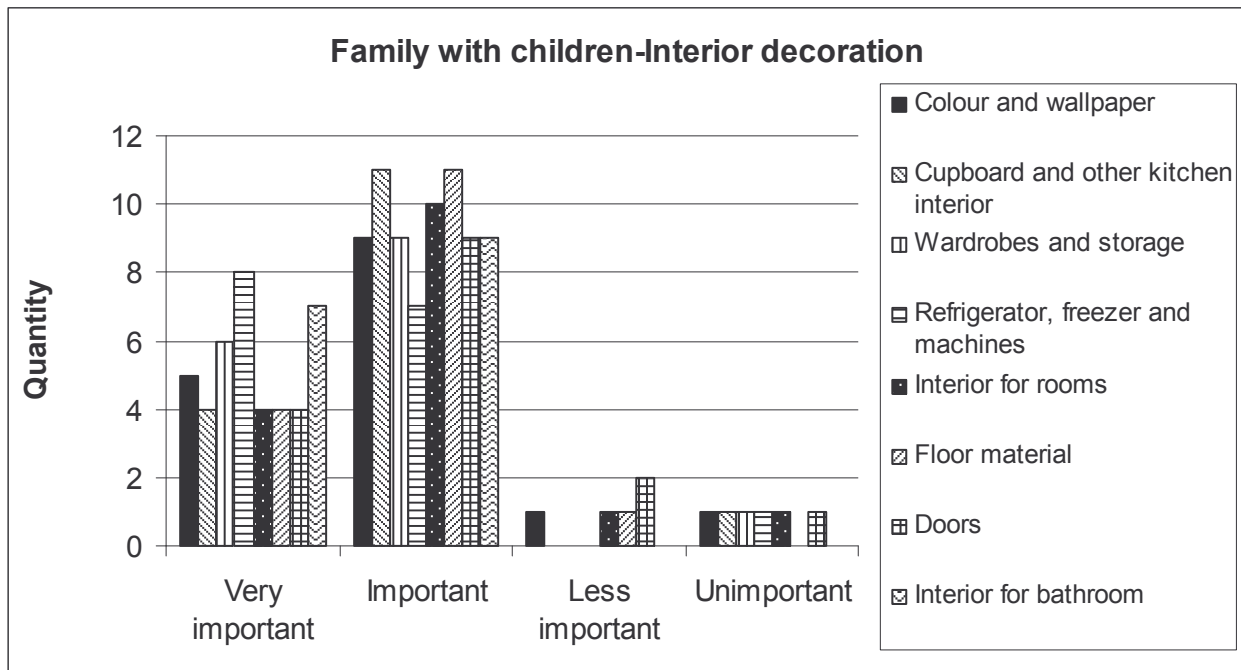
Figure 29. Diagram on families with children thoughts on interior decoration.

Families with shared custody largely think that interior decoration is very important. Interior for rooms and interior for bathroom is very popular among families with shared custody. A minor majority thinks that colour and wallpaper, refrigerator, freezer and machines, interior for rooms, floor material, and doors are less important factors. See figure 30.
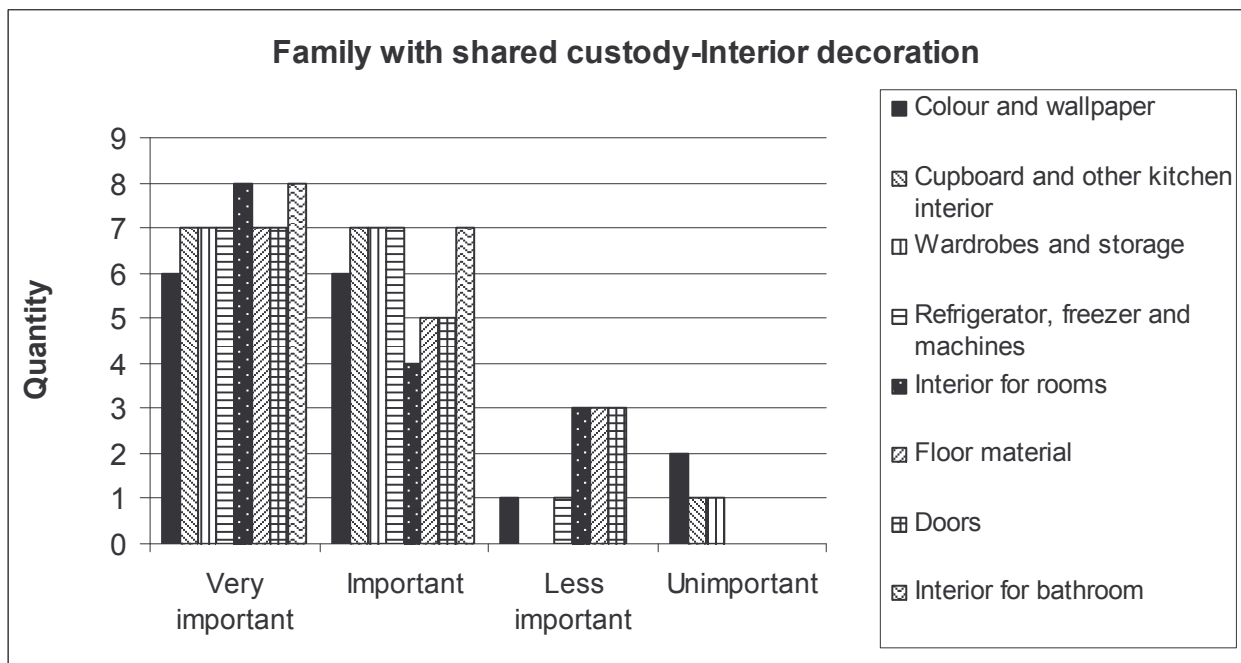

Figure 30. Diagram on families with shared custody thoughts on interior decoration.

The majority of senior citizens consider interior decoration such as refrigerator, freezer and machines as very important. They also think colour and wallpaper, cupboard and other kitchen interior, wardrobes and storage, refrigerator, interior for rooms, floor material, doors, and interior for bathrooms are important factors when they move to a new housing. See figure 31.
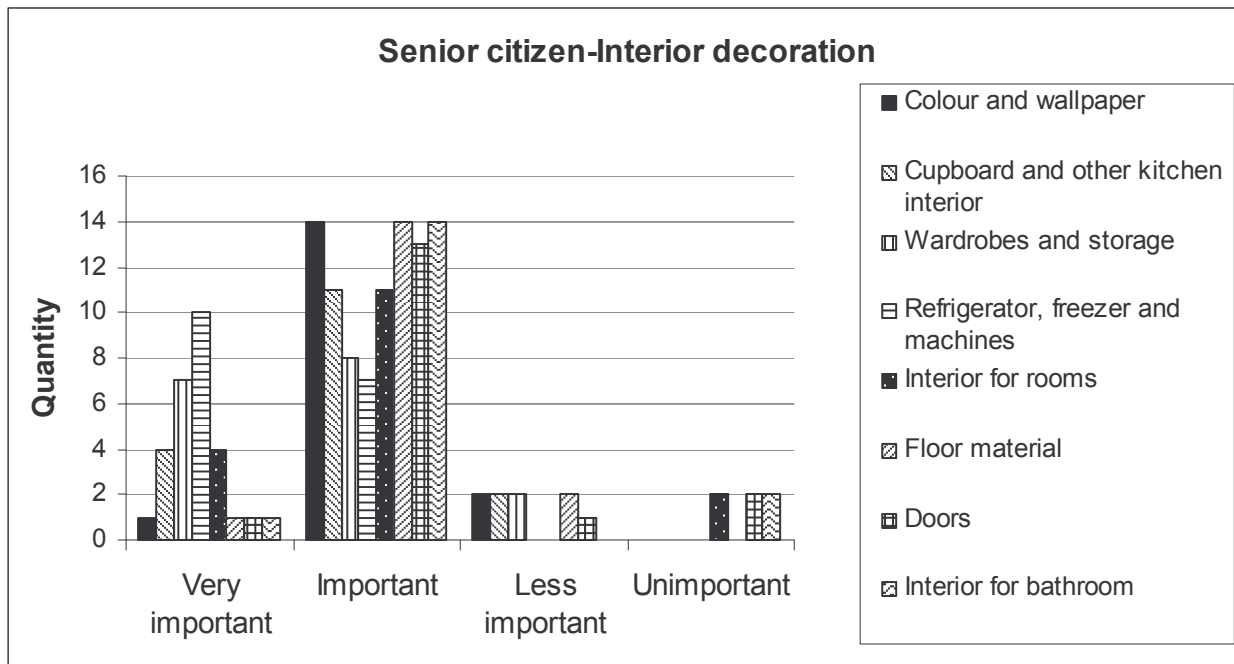
Senior citizen-Interior decoration

Figure 31. Diagram on senior citizens thoughts on interior decoration.

The categories reflection on visible pipes in the bathroom

The author thinks the question if people can accept visible pipes in the bathroom is interesting, because it can be an opportunity to build houses in a more effective way. 62% of the students who participated in this research answered yes to acceptance of visible pipes in the bathroom, and 38% answered partly. 75% of the category families without children answered yes to visible pipes in the bathroom and 25% answered partly. 44% of families with children answered yes, 50% answered partly, and 6% answered no to visible pipes in the bathroom. 60% of families with shared custody answered yes, 20% answered partly, and 20% answered no to visible pipes in the bathroom. Finally, 88% of senior citizens answered yes to visible pipes in the bathroom and 12% answered partly. See figure 32. To summarise, all the categories except families with children can accept visible pipes in the bathroom. The majority of families with children can partly accept visible pipes in the bathroom. People that have answered partly to visible pipes in the bathroom maybe think it is alright to have visible drainpipe in the bathroom.
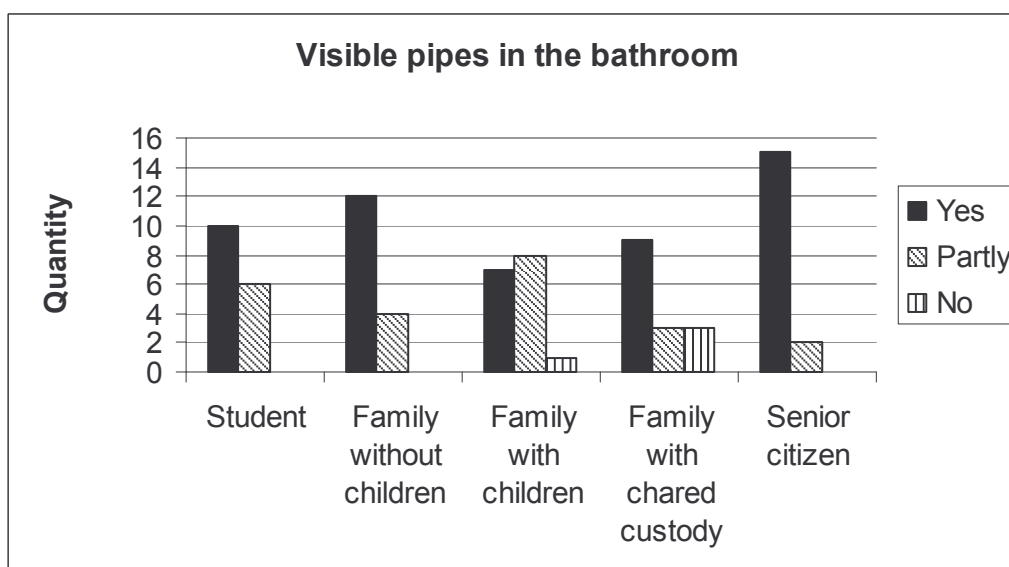
Visible pipes in the bathroom

Figure 32. Diagram on categories acceptance of visible pipes in the bathroom.

3.2.12 Important factors when you move to a new housing - IT-level

Nowadays IT is becoming more popular among people. Most people want to have broadband connections at their housing.

Students consider cable television and preparation for broadband or setting-up for broadband as important in their housing. Service such as cable television, setting-up for broadband and home network is less important for some students. On the whole, it is important with some kind of setting for broadband for the students when they move to a new housing. See figure 33.
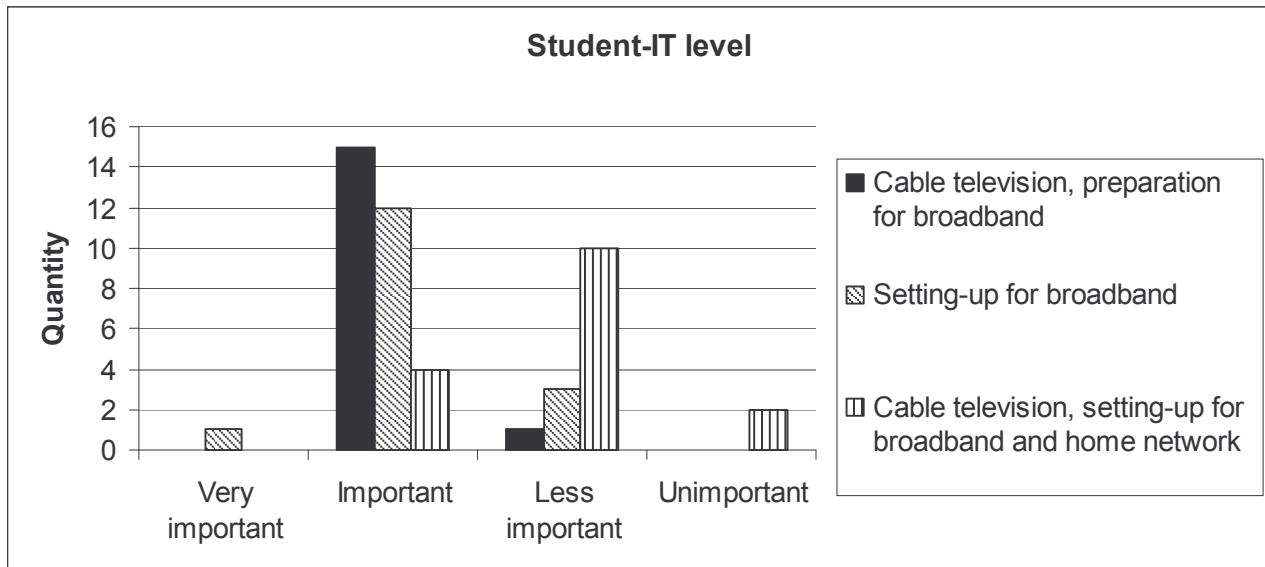

Figure 33. Diagram on students thoughts on IT-level.

Families without children also think that cable television and some kind of preparation for broadband is important when they move to a new housing. See figure 34.
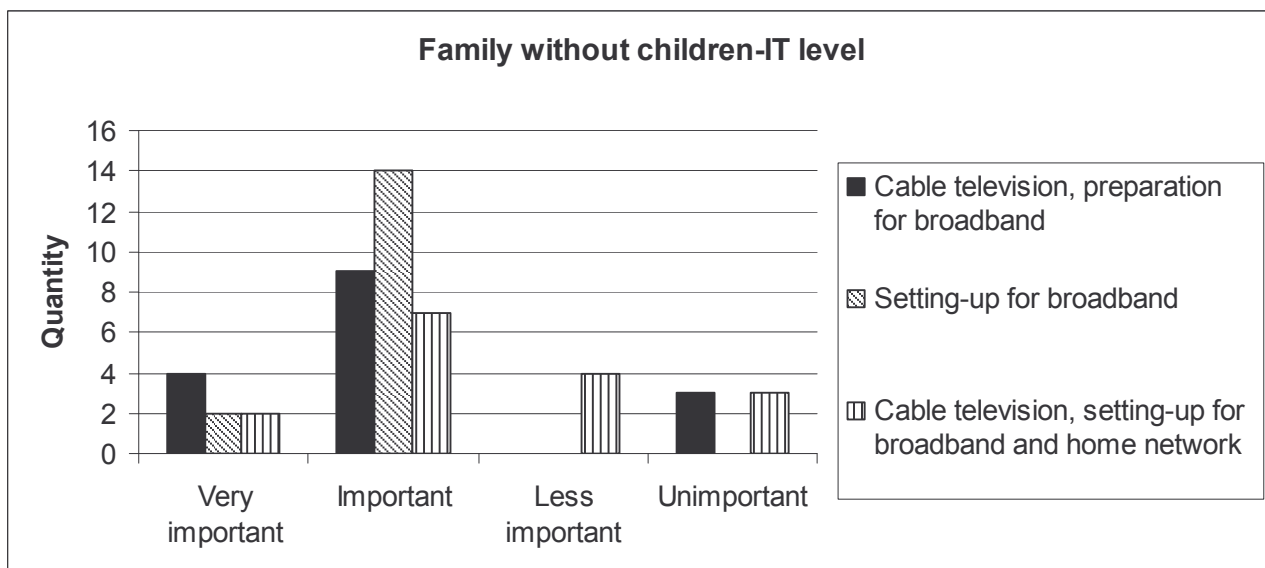

Figure 34. Diagram on families without children thoughts on IT-level.

The majority of families with children think all the three alternative concerning IT-level in their housing is important. Some families with children also think that is very important with setting-up for broadband. See figure 35.
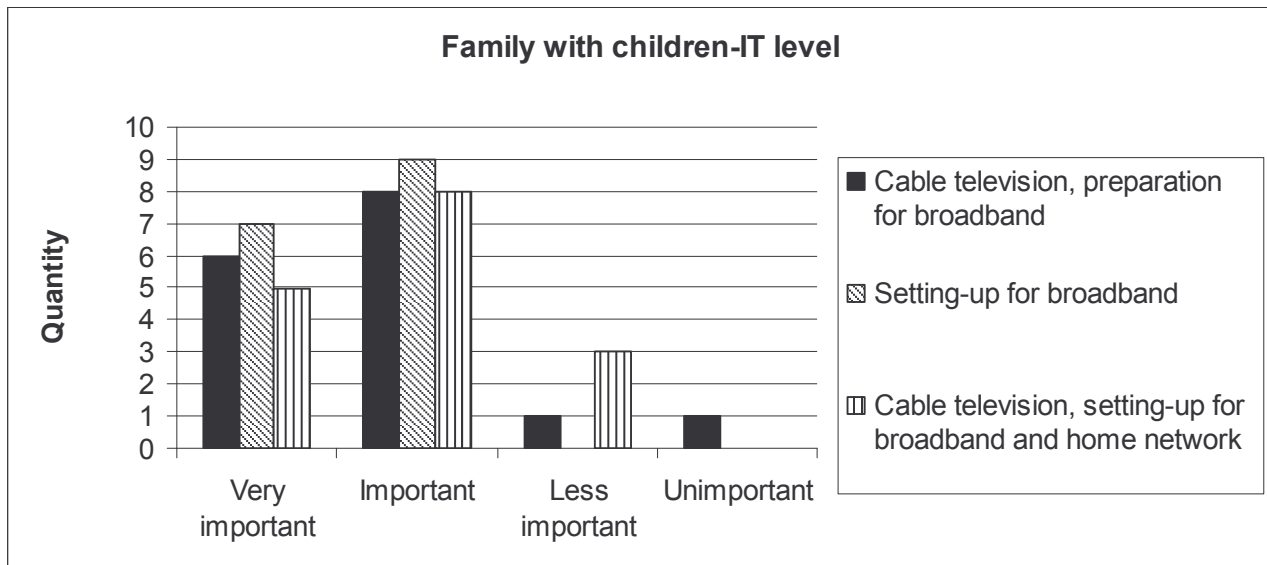
Figure 35. Diagram on families with children thoughts on IT-level.

The category families with shared custody share the same thoughts as families with children. All the three alternative concerning IT-level in their housing is important for families with shared custody. The most important service in their housing is to have some kind of setting-up for broadband. See figure 36.
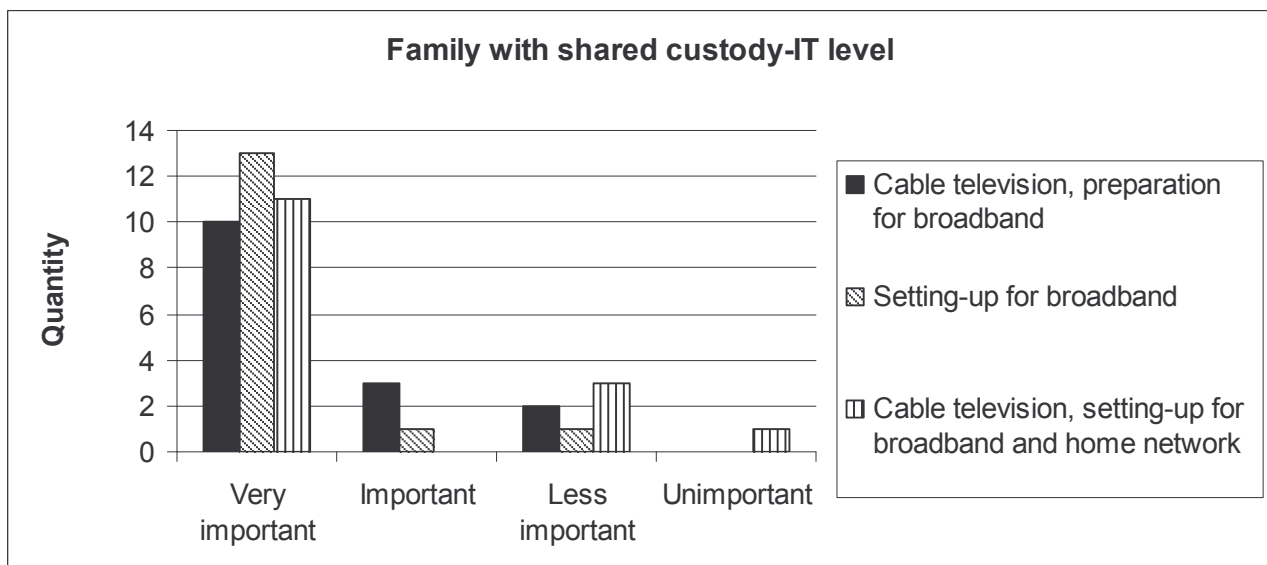

Figure 36. Diagram on families with shared custody thoughts on IT-level.

The senior citizens that participated in this research do not share the same interest in IT-levels in their housing as the other categories. Some senior citizens think it is important with all the three alternatives concerning IT-levels. The majority of senior citizens consider IT-levels as less important and even unimportant. See figure 37. The reason for that can be that senior citizens are not as familiar with IT functions as the other categories. The author of this dissertation thinks that more senior citizens will be interested in IT services in the future, because you can do all kind of work on the internet nowadays.
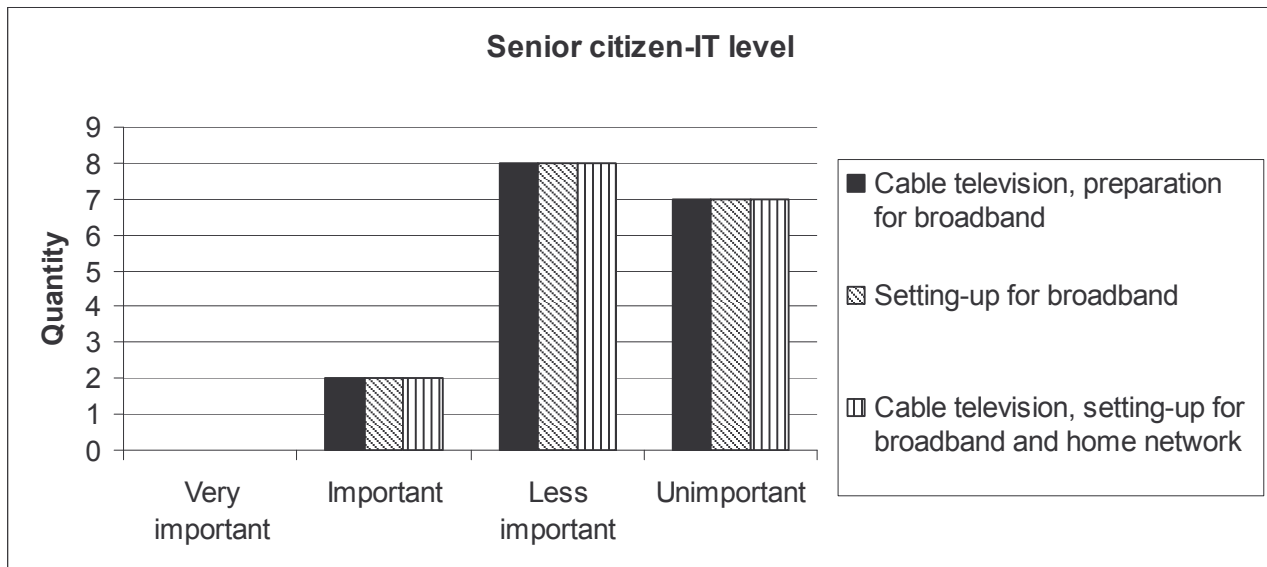
Senior citizen-IT level

Figure 37. Diagram on senior citizens thoughts on IT-level.

4 Discussion

The analysis of the questionnaires proves that people have different requirements and needs depending on which living situation they have today. Some factors are important to all the categories introduced in this dissertation and some are not. The factors that categorises the different categories are presented down below. A SWOT analysis is also necessary because here you can identify the strengths, weakness, opportunities and threats with categorisation of different groups of people.

4.1 The category of students

Young and active people often have the housing as a basis between journey to work and other activities. According to Kessling and Peterson (2004) teenagers that move to their first housing do not require of a large housing. Students and teenagers do not see the size of the housing as a first priority instead they think the rent is a more crucial factor. A housing that has a low rent is very attractive for students and young people, because they do not earn so much money.

Factors that categorises students:
Main interests - sport, travelling and spending time with friends
Living situation - most live in rented flats
Preferred living situation - want to live in co-operative flats
Required service benefits - internet (broadband) and rent party hall
Required standard equipment for the housing - refrigerator, freezer, oven and fan
Required brand on standard equipment for the housing - not interested
Individual measurement and debit of electricity - interested
Individual measurement and debit of heating - interested
Individual measurement and debit of water - interested
Total time they spend in their home - 12 hours
Most required immediate surroundings and range of service - pleasant surroundings, close to public transportation, close to grocery store, and close to centre
Most required outdoor area and buildings - green space and leafy area, peaceful and quiet in the housing area, little traffic in the housing area, and safe stay in the housing area
Most required building functions and standard - security for housebreaking, high standard in the bathroom, and maintenance of real-property
Most required interior decoration - colour and wallpaper, cupboard and other kitchen interior, refrigerator, freezer and machines, and interior for bathroom
Acceptance of visible pipes in the bathroom - yes
Most required IT-level - cable television and preparation for broadband

4.2 The category of families without children

Families without children may live in small houses, but still they will prefer extra comfort and that often depends on their economy. If a couple have a high income then they maybe prefer extra room for guests or a study room that after a period can be change to a room for a child. Well educated people who travel a lot often want to live in a central location without much expense. Their priorities are to have comfort, function and design that provide low rent and low impact on the environment.

Factors that categorises families without children:
Main interests - travelling, sending time with friends and sport
Living situation - most live in co-operative flats and detached houses
Preferred living situation - want to live in detached houses
Required service benefits - internet (broadband) and rent extra storage place
Required standard equipment for the housing - refrigerator, freezer, oven, fan, dishwasher and washing machine
Required brand on standard equipment for the housing - interested
Individual measurement and debit of electricity - interested
Individual measurement and debit of heating - interested
Individual measurement and debit of water - interested
Total time they spend in their home - 12 hours
Most required immediate surroundings and range of service - peasant surroundings, close to public transportation, and close to grocery store
Most required outdoor area and buildings - green space and leafy area, peaceful and quiet in the housing area, little traffic in the housing area, environment suitable for children, and safe stay in the housing area
Most required building functions and standard - security for housebreaking, high standard in the bathroom, and high standard in the whole house
Most required interior decoration - cupboard and other kitchen interior, floor material and doors
Acceptance of visible pipes in the bathroom - yes
Most required IT-level - setting-up for broadband

4.3 The category of families with children

Some people have the housing as a project where they enjoy working and spending time. People that have children and live in families have other priorities than people without family. Size and the location of the housing in this case are very important factors. Families with children want to live close to work and activities.

According to Svensk Fastighetsförmedling (2005) families with children want to live in detached houses. More than 50% of the Swedish citizen thinks that it is important that the children has an own room. To have an own room for children is more important than child safety housing. Families with children also prefer spacious kitchen and separate laundry room. Women often think that it is important to have a spacious kitchen and to have a good storage space. Men chose to have a more open area in the housing with many bathrooms. For families with children it is very important that their children have enough space to play. To live close to the day nursery and to other activities are equal important.

Factors that categorises families with children:
Main interests - travelling and spending time with family
Living situation - most live in detached houses
Preferred living situation - want to live in detached houses
Required service benefits - internet (broadband), help with garden and help with cleaning
Required standard equipment for the housing - refrigerator, freezer, oven, fan, dishwasher, and washing machine
Required brand on standard equipment for the housing - interested
Individual measurement and debit of electricity - interested
Individual measurement and debit of heating - interested
Individual measurement and debit of water - interested
Total time they spend in their home - 12 hours and some 18 hours

Most required immediate surroundings and range of service - pleasant surroundings, close to nature, and close to public transportation

Most required outdoor area and buildings - green space and leafy area, peaceful and quiet in the housing area, mixed and beautiful buildings, little traffic in the housing area, environment suitable for children, and safe stay in the housing area

Most required building functions and standard - plenty of wardrobes and storages, spacious kitchen and bathroom, security for housebreaking, and separate laundry room

Most required interior decoration - cupboard and other kitchen interior, floor material and interior for rooms

Acceptance of visible pipes in the bathroom - partly

Most required IT-level - setting-up for broadband

4.4   The category of families with shared custody

A single parent has the lowest living standard and the highest expense of the housing when it comes to income that goes to payment of housing. Children spend most of their time close to the house, and still it seems to be things that are missing in their home environment. A third part of all parents think there is a lack of places for children activities in their housing. Single parents and families with shared custody think their children should have the possibility to take home friends. There are huge differences between children that live in semi-detached houses and children that live in a flat. One of six children that live in a flat never takes home friends because there is not enough play area in their housing.

Factors that categorises families with shared custody:

Main interests - travelling, sport and spending time with family

Living situation - most live in rented flats

Preferred living situation - want to live in detached houses

Required service benefits - internet (broadband) and help with cleaning

Required standard equipment for the housing - refrigerator, freezer, oven, fan, dishwasher, and washing machine

Required brand on standard equipment for the housing - interested

Individual measurement and debit of electricity - interested

Individual measurement and debit of heating - not interested

Individual measurement and debit of water - not interested

Total time they spend in their home - 12 hours

Most required immediate surroundings and range of service - pleasant surroundings, close to public transportations, close to grocery store, and close to other shops

Most required outdoor area and buildings - green space and leafy area, environment suitable for children, and safe stay in the housing area

Most required building functions and standard - plenty of wardrobes and storages, high standard in the bathroom, spacious kitchen and bathroom, and security for housebreaking

Most required interior decoration - interior for rooms and interior for bathroom

Acceptance of visible pipes in the bathroom - yes

Most required IT-level - setting-up for broadband

4.5   The category of senior citizens

According to Boverket och Socialstyrelsen (2003) senior housing is for old persons that want to feel safe and want to have the possibility to make own choices of how they want do payments for services. Special housing is housing for senior citizens that need much help with services. The municipality makes the decision of whom that can have this kind of housing and they also stand for all the expenses. According to Bernow (2002) senior citizens appreciate to live close to all services for less money. When you get old maybe the housing is more like a place where you can collect memories from different phases of life. Senior citizens today live in big housings. The reason for this can be that they do not bother to move after the children have moved out.

Factors that categorises senior citizens:
Main interests - outdoor activities and spending time with family
Living situation - most live in detached houses
Preferred living situation - want to live in detached houses
Required service benefits - watching the housing while they are away from home and help with garden
Required standard equipment for the housing - refrigerator, freezer, oven, fan, dishwasher, washing machine, and microwave oven
Required brand on standard equipment for the housing - interested
Individual measurement and debit of electricity - interested
Individual measurement and debit of heating - interested
Individual measurement and debit of water - interested
Total time they spend in their home -12 hours, 18 hours and some 24 hours
Most required immediate surroundings and range of service - pleasant surroundings, close to nature, close to public transportations, close to grocery store, and close to centre
Most required outdoor area and buildings - peaceful and quiet in the housing area, attractive housing area, and safe stay in the housing area
Most required building functions and standard - security for housebreaking, high standard in the bathroom, high standard in the whole house, compacted and well used housing areas, separate study, and spacious bedroom
Most required interior decoration - colour and wallpaper, floor material, doors, and interior for bathroom
Acceptance of visible pipes in the bathroom - yes
Most required IT-level - the majority are not interested in any kind of IT-level

4.6   SWOT of using categorisation as a mean to identify needs, requirements and wishes of different groups

Strengths
The strengths with categorisation on the housing market can be that you can see clear factors of what people want in their housing. In other word, it is easy to define what people want in their housing. Categorisation can also be a more economical effort. Strength with categorisation can be that from an early stage see what people actually want when they move to a new home. Instead of making changes after people have move to the housing, categorisation gives the chance to solve the issues people have concerning the housing.

Weaknesses
Weaknesses with categorisation can be that people have so many different needs and requirements and therefore it is not possible to categorise people into groups. To satisfy peoples' needs and requirements can be expensive in both short and long term.

Opportunities

The opportunities with categorisation can be that it is easier to build houses after the end users' needs and requirements. If you know what the end users' want in their housing then it can be possible to establish the entire requirement in an early stage and then it is important with a more gradually detailed decision process. Categorisation of people in the housing market can be a method that gives the biggest opportunity of low expense, shorter building time, and improved control of the quality. It can be possible that all categories can live in a same type of housing and solve the housing shortage in the big cities.

Threats

One of the biggest threats with categorisation in the housing market can be that it leads to the same kind of housing like the million programme. The million programme was supposed to be a way to build better housing, and it was supposed to solve the housing shortage in the big cities in Sweden from 1965 to 1975. People have mentioned that the million programme housing was impersonal and boring. Some people did not feel good to live in a million programme housing.

5   Conclusion

The results that are discussed, shows that categorisation of people into groups like students, families without children, families with children, families with shared custody and senior citizens is partly achievable. People on this research have different requirements and needs depending on which living situation they are in. The factors which make categorisation possible are main interests, living situation, service benefits, immediate surroundings and range of service, outdoor area and buildings, building functions and standard, and interior decoration. The SWOT analyse of the categorisation shows that there are many strengths and opportunities with categorisation of people in the housing market. It is also crucial to use the method of categorisation in real projects to be sure that it is working.

Factors that can restrain categorisation are living situation, current occupation, income, age, and gender. For example, Wilhelmsson (2004) stated that income has a huge impact on how much a person are willing to pay for housing. Households that are well informed, often buy much expensive properties than people that do not have any information at all. Olling (2005) expressed that the clients of NCC Boende mostly are families that are planning to have children, families with children, senior citizens who do not want to live in rented flat. According to Olling (2005) people that bought a house for example 100 000 Swedish crowns, spend 50 000 Swedish crows on the kitchen. This means that kitchen is the place in the housing people spend most money on.

When we look backwards we can see that the living standard has changed a lot. Today we think that the housing is a function separated by rooms and we often talk about bedroom, living room, and study room etc. It is obvious that the future housing will demand less area, low building expense and low impact on environment. Many factors indicate that we in the future are going to live in appreciable smaller area than today. Much time and energy has been put down on "compact living", that is to minimize the living area for every function. Maybe the future housing must contain rooms that can be adjusted for different functions. The author of this dissertation considers there are two methods to find out how people want live and what their requirements and needs are. One method is to use the same method as this research, to interview people on their housing. Another method is to build test housing like Optibo which is presented in a report by Boverket (2004). According to Boverket (2004) the idea with Optibo is to have an acceptable area for every function and then the room has to be changeable. With modern technique an area of 25m² is going to have the same functions as a normal area of 75-80m². For this kind of work it is necessary with a strong new thinking. Optibo is a building technique with scenario thinking. When you go to a theatre they work with different scenes, and maybe it can work in a housing too. The main point with Optibo is that the living environment should not be near as boring. The feeling should be like to live in a 3 room housing (Boverket, 2004).

5.1   A critical review and future research

To look critically on this research a certain factors could have made this research better. First of all, the results of the questionnaire could have been better if the author had interviewed more people. According to Trost (2001) the results of quantitative research are best when interviews are made with as much people as possible. From earlier researches it is proved that women and men have different thoughts on questions regarding housing. The majority of the interviewees on this research are female and that can also be a critical factor for this dissertation.

To analyse tenants on the housing market is a large and actual area, and the author is sure that more detailed research can be made about categorisation of people on the housing market. The author also thinks that more detailed research would bring forward both more problems and solutions in the housing market.

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Appendix 1

Questionnaire - Requirement on the housing

For my university diploma work, I am doing a market research on different categories of the housing market and want to see if it is possible to categorise people in different groups. **I appreciate your help!**

1. What is your gender?
☐ Male
☐ Female

2. How old are you?
☐ 18-30
☐ 31-40
☐ 41-50
☐ 51 or older

3. How do you live today?

☐ Alone
☐ Common law husband/wife
☐ Common law husband/wife with children
☐ Married
☐ Married with children
☐ Shared custody of children

☐ Single parent with children
☐ Live with parents
☐ Live with a friend
☐ Senior housing
☐ Special housing
☐ Other…………………………

4. What is your current occupation?
☐ Employed
☐ Student
☐ Unemployed
☐ Senior citizen
☐ Other………………………

5. What are your main interests?

☐ Travelling
☐ Outdoor activities
☐ Sport
☐ Music
☐ Books
☐ Art

☐ Gardening
☐ Animals
☐ Spend time with family
☐ Spend time with friends
☐ Cooking
☐ Other………………………

6. What type of housing do you live in today?

☐ Rented flat

☐ Co-operative flat

☐ Detached house, semi-detached house, terraced house, linked house

☐ Other…………………………

7. How do you prefer to live?

☐ Rented flat

☐ Co-operative flat

☐ Detached house, semi-detached house, terraced house, linked house

☐ Other…………………………

8. Which type of service in your housing would you have benefit of?

☐ Rent extra storage space

☐ Rent party hall

☐ Rent stay overnight room

☐ Help with window polish

☐ Help with cleaning

☐ Help with garden (for real-estate unit)

☐ Rent car

☐ Home delivering of food

☐ Help with watching the housing while you are away

☐ Internet (Broadband)

9. Which type of equipment do you think should be standard in your home?

☐ Refrigerator

☐ Freezer

☐ Oven

☐ Stove

☐ Microwave oven

☐ Fan

☐ Dishwasher

☐ Washing machine

10. Would you like to choose the brand of the equipments on the questions above?

☐ Yes

☐ No

11. Would you like to have individual measurement and debit of:

Electricity
☐ Yes
☐ No

Heating
☐ Yes
☐ No

Water
☐ Yes
☐ No

12. How much time do you normally spend in you home on one day?

☐ 6 hours   ☐ 18 hours

☐ 12 hours   ☐ 24 hour

13. What do you think is most important when you move to a new housing?

Immediate surroundings and range of service	*Very Important*	*Important*	*Less Important*	*Un-important*
Pleasant surroundings				
Close to the nature				
Good car roads to the housing area				
Close to public transportation				
Close to grocery store				
Close to centre				
Close to other shops				

Outdoor area and buildings	*Very Important*	*Important*	*Less Important*	*Un-important*
Green space and leafy				
Peaceful and quiet in the housing area				
Little traffic in the housing area				
Mixed, beautiful buildings				
Environment suitable for children				
Attractive housing area				
Most low-rise buildings				
Neighbours pretty much the same as you				
Safe stay in the housing area				

Building functions and standard	*Very Important*	*Important*	*Less Important*	*Un-important*
Plenty of wardrobes and storages				
Windows at least in two point of the compass				
Spacious balcony/outdoor area				
High standard in the bathroom				
High standard in the kitchen				
Spacious kitchen and bathroom				
High standard in the whole house				
Compacted, well used housing areas				
Separate laundry room				
Separate study				
Spacious bedroom				
Open building plan				
Separate kitchen				
Maintenance of real-property unit				
Security for housebreaking				

Interior decoration	Very Important	Important	Less Important	Un-important
Colour and wallpaper				
Cupboard and other kitchen interior				
Wardrobes and storage				
Refrigerator, freezer and machines				
Interior for rooms				
Floor material				
Doors				
Interior for bathroom				
	Yes	Partly	No	
Can you accept visible pipes in the bathroom?				

IT-level	Very Important	Important	Less Important	Un-important
Cable television, preparation for broadband				
Setting-up for broadband				
Cable television, setting-up for broadband and home network				

Thanks for the help!