In the socio economic study of ASCR an explorative non-rotating factor analysis was calculated. Afterwards the scree test showed the amount of factors, which was in this case four. In terms of content the analysis of the factor showed the following dimensions:

- **Comfort-centered**: This factor covers aspects like home automation, energy relevant user behavior such as lighting and circulation behavior and hot water usage.
- **Technology-centered**: Also covers aspects like home automation but more with the sense of interest in the technology rather than the comfort aspect.
- **Data sensibility**: Concerns regarding the further use of the collected data.
- **Living in Seestadt**: The aspect of living in the Seestadt as an extra dimension shows that it is some kind of prestige to live there.

Finally a cluster analysis was done to identify the user segments. Cluster analysis is an exploratory process with the aim of finding groups of similar objects [Tuf11]. Different hierarchical analysis were calculated to find an appropriate amount of clusters. Appropriate means in this case having an big enough group of cases/persons and groups having distinct features. The data set comprised 121 handed back questionnaires and the cluster analysis could identify four clusters. The four clusters correspond to the four user groups. The result of the cluster analysis is shown in 2.1 and explained in the following.

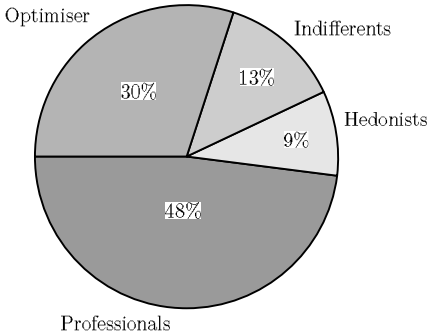

Figure 2.1: Result of the cluster analysis: Four user groups

"Professionals" (48 %): The Professionals are the biggest group. The members of this group are technically competent and interested in topics concerning energy.

The main characteristics are:

- High proportion of persons having an abitur or university graduates
- Highest proportion of people in managerial positions, a quarter works (also) at home
- All household sizes (also households with children)
- Knowledge about energy
- High technical competence and interest in Technology. (Experience with home automation, a quarter has programming skills)
- Interested in sustainability
- Use of media or Internet is primarily for professional purposes

Typical segment behavior regarding home equipment:

- "Reasonable" use of hot water ("I do not shower longer than necessary")
- "Reasonable" use of lighting ("I turn down the light when I leave a room")
- Make use of the "ECO-Button" (installed tool in the apartments of D12 which helps to save energy) when leaving the apartment

Due to their technical expertise, their experience with home automation and their interest in energy issues they are the most appropriate target group for home automation and mobile application solutions. Rationally justified explanations and instructions for use meet their information style. Professionals also expect more detailed information in individual offers such as energy feedback.

"Optimizer" (30 %):

The second largest segment comprises people who primarily aim to optimize energy costs. Optimizer have little knowledge about energy and are no technophiles.

The main characteristics are:

- High proportion of persons having an abitur or university graduates
- Highest proportion of people in managerial positions
- More women
- All household sizes (also households with children)
- Interested in sustainability
- Little to no knowledge about home automation

- no technophiles
- Use of media or Internet is not very noticeable

Typical segment behavior regarding home equipment:

- Prefer to air manually rather than to make use of the automatic ventilation system
- A quarter never uses the "ECO-Button"

The use of the home furnishings indicates a poor understanding of their usability or less time of interaction with them. Due to their much lower competence in energy and technology compared to the professionals, the planned solutions and measures should focus very strongly on the following points:

- Clear and concrete instructions for behavior, for example in the form of energy-saving tips or concrete, close to reality explanations and concrete benefits.
- Avoid technical language in communication and use personalized examples.
- Reduce energy feedback to essential information. Optimizer do not need detailed explanations.
- Enable trouble shooting: Optimizer want a quick solution to an energy problem, as they do not want to spend lot of time on energy topics.

"Indifferents" (13 %):

The "Indifferents" have low competence in energy and technology and no interest in energy topics or sustainability.

The main characteristics are:

- Young segment
- High proportion of Non-workers
- No interest in sustainability
- Low technical competence (no experience with home automation)
- Information research and streaming is above average

Typical segment behavior regarding home equipment:

- Hedonistic use of hot water: They enjoy taking long showers and baths

- Smallest number on different device types
- Little satisfaction with the provided air ventilation

The "Indifferents" have low interest in the research topic and it's solution in general. To address this group with the necessary knowledge and to awaken their interest for energy and sustainability, a bigger effort has to be done than for the above groups. A typical representative of this group is a person who has just moved out from the parental home and who now has to organize the household on his/her own and to develop independence.

"Hedonists" (9 %):

The "Hedonists" are technical competent but are indifferent to energy and sustainability topics.

The main characteristics are:

- Young segment
- More mens, more single households
- Technical competent and partly with programming skills
- Intensive use of mobile Apps and Internet
- Hedonistic use of gaming and social media

Typical segment behavior regarding home equipment:

- Highest number on different device types
- Carefree use of lighting and hedonistic use of hot water
- Frequent use of "ECO-Button"
- High satisfaction with the provided air ventilation
- Weak identification with Seestadt

The youngest segment has good preconditions to make a good use of mobile application with feedback of their energy use. Nevertheless, the motivation to deal with energy topic is rather low. The hedonistic lifestyle with its strong convenience and comfort orientation is in the foreground. Despite the high usage of apps it may be difficult to win them around for energy feedback. The comfort gain is of great relevance.