

CHALMERS



Feasibility Study

- Youth rental Community in Beijing

*Master of Science Thesis in the Master's Programme Design and Construction
Project Management*

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Department of Civil and Environmental Engineering

Division of Construction Management

CHALMERS UNIVERSITY OF TECHNOLOGY

Göteborg, Sweden 2011

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ABSTRACT

For a successful developed society, it is important to have a sound housing system to provide citizens a stable and safety living condition. While for the current Chinese's society, a number of problems exist in the house market, especially, the incredible high price leads to lots of people that cannot afford to purchase their own house. Meanwhile, the private rental houses have dominated most of the rental market, which are lack of management and hard to be controlled. In addition, the youth group is the main group of people who have to face this situation. Therefore the origin of this thesis is to study the feasibility of a youth rental community that could provide house rental services with sound ancillary facilities and also a central management system. The purpose is to investigate the possibility of establishing such a kind of community in Beijing from operational aspects, and excavate the potential market. We achieve the goals of this thesis, with help of a series of academic reviews, interview and questionnaires survey, which are conducted, to analyse the feasibility of the community among which, the analysis methods are combining PEST analysis tool with SWOT analysis as carriers. Based on the analysis of the internal and external environment, it can be concluded that the youth rental community is feasible and largely possible to be built since the potential market needs to be developed and is worthy to investment, which has indicated this community a bright future. However, the large funding and long return period can be obstacles for operation, and unpredicted new policy may become an impact and threaten to competitiveness of a youth rental community.

Key words: Rental market, community, feasibility study, PEST analysis, SWOT analysis

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Preface

In this thesis, feasibility study has been done with interviews and questionnaires as the information sources together with PEST tool and SWOT analysis. The thesis has been carried out from February 2011 to June 2011. The focus of this thesis is on Chinese housing issues and thus to provide a comprehensive investigation. The purpose is to carry out feasibility study of youth rental community in Beijing. This work is done at the department of Design and Construction Project Management at Chalmers University of Technology, Sweden.

What needs to be added is that we would like to express our sincere gratitude to our supervisor, Prof. Petra Bosch, a respectable, responsible, patient scholar, who tries her best effort to help us finishing the thesis. We extend the thanks to the interviewed company which give us great support and wealth of information to complete the market research. The conversation and the valuable data in the interview have made the content of the thesis more rich and reliable.

We are also indebted to many of Chinese friends in Beijing for supporting us to complete the questionnaire survey. Without their engagement and cooperation, the data collection cannot be finished in a short time.

Göteborg June 2011

Xiaoguo Jiang & Lina Fu

1 Introduction

1.1 Background

The real estate industry has a core position in Chinese's economy life, which, somewhat, has dominated China's national economy in modern society. "No house, no home." It is an old saying, which has from traditional essences expressed how much it means to own an apartment in a Chinese's deep heart. Based on the foundation of providing a temporary home for citizens and releasing the pressure of buying an apartment, the rental market has a quick development recent years. It is becoming a necessary branch of real estate market accompanied by increasing demand for housing.

Since late 1980s, due to the reform in land use systems and housing policy in China's history, real estate industry has gone through a great many of changes. The new housing supply system is restructured which means traditional administrative housing allocation system has been washed out (Mak et al., 2007). This has brought great business opportunities to the real estate market.

However, the development of each new trend is always accompanied by serious hidden problems appearing gradually in the process. According to collected statistics, it is never news that the price of housing has gone through a deformity soaring stage, which really gives the Chinese residents a big shock. Till now, to buy an apartment is still a huge challenge for most residents in China, especially young people. They are facing a burden of supporting their family since they have began their working life span thus have unimagined pressure for this situation (Liu; Wu, Reed, 2010). In addition, the low affordability limits the possibility to buy a house which indicates the income is much lower than the house price.

Nowadays, young people prefer to live in a big city since it has more working opportunities and good infrastructure. Every year thousands of people pour into Beijing, which leads to inadequate housing supply and rental market booming. Due to financial shortage and the limited rental house sources, the living condition is generally unsatisfied.

However, the Chinese rental market lacks systemically management comparing to those in European countries such as Sweden. The source of this problem comes from the fact that most rental houses are mainly private houses, which are separately located and different to regulate. Thus there is no uniform management not to mention the reasonable rent price, excellent service from landlords, and legal rights for tenants.

1.2 Problem definition

On one side, due to the price of new apartment that is far beyond their purchasing power, most young people have no choice but to rent an apartment to ease the burden temporarily. On another side, it is a traditional habit that they are trying to avoid the feeling of lonely or being separated from a common social life, thus to rent an apartment and enjoy the community life can, somehow, make up for the loss of emotion before they realize the dream of owning a home.

Which needs to be stated is that housing pressure can be relieved by a housing security system in China but the low-income housing system focus on providing basic houses for needy groups which does not include youth group. Therefore considering poor housing affordability of young people, the private renting house is the major choice for them.

As has been stated, private rental housing has absolutely taken up and dominated Chinese rental market with a highest proportion of market share under the imperfection of public rental system. Problems and confusions often occur between private landlords and tenants. A new community-based rental system may become a product of this tendency and it is probably an effective mean to replace the old one and solve the problems fundamentally.

Therefore it is important build a rental community for young people. It is a place including apartments and sound ancillary facilities such as entertainment facilities, fitness facilities and shopping mall, etc. It is under a central management of certain institution providing a stable and safety home for them where they can share common interests and enjoy the social life.

1.3 Purpose

The purpose of this thesis is to carry out the feasibility study of a youth rental community in Beijing and further demonstrate the possibility of establishing such kinds of rental communities in Beijing. Moreover, based on the result of a feasibility study, it may contribute a valuable insight to provide operational suggestions for Chinese current rental market as well as provide useful evaluation of this new rental community's potential market and future development in China.

In order to obtain the purpose mentioned above, a list of research questions are focused on and specified in this report.

- How do the policies influence the house price and rental market?
- How does the housing affordability of the youth in Beijing look like?
- How does the current situation of the rental market look like?
- Is it possible to transfer experience from similar model?
- How do the external and internal factors influence the youth rental community?

1.4 Method

This obtained information for feasibility study is based on the literature study combined with a questionnaire survey and interview. In order to analyse, PEST and SWOT analysis tool are applied to build the framework of the thesis.

1.5 Limitations

The feasibility study is limited to the residential market in Beijing, the capital of People's Republic of China. According to literature, Beijing is divided into 16 suburban districts and two rural counties (Beijing.gov.cn, 2011). The data collected about houses price for this thesis is limited to eight suburban districts that cover almost all commercial and business zones of Beijing. Moreover, both the price of apartment and the income level investigation is based on yearly data from 2007 to May 2010 according to availability of database.

Furthermore, the target group that is studied in this thesis ranges from students to young working people (Age range from 20 to 35).

In addition, the research model and rental market example is limited to Swedish and Chinese rental market. The information related to Chinese rental community is primarily about private rental market, because the government-managed rental community is now completely blank in China. Meanwhile, the research about Swedish rental market belongs to government funding institute instead of private rental landlords.

1.6 Reading directives

The content of the thesis includes four parts, which are listed below

- Appropriate theoretical structure for the comprehensive analysis of the report frame and problem-solving.
- Ideal concept of youth rental community that is based on the Swedish model and questionnaires survey results.
- The macro-environment factors of feasibility study from political, economical, sociocultural and technological aspects by implementing PEST analysis tool.
- Summaries of the internal weakness and strength factors as well as external factor which has opportunities and threats by implementing SWOT analysis.

This thesis contains seven major parts and nine chapters, which can be seen in Figure 2. Introduction and theoretical framework are the beginning of the thesis which is following by methodology part. Then it is followed by the outcomes of interview and questionnaires survey. After that, the report goes to ideal concept of youth rental community, which describes embryonic form of the youth rental community. Part six is the core part of the feasibility study covering two main subjects. By implementing PEST, the macro-environment that could influence the youth rental community is contained. Then the SWOT analysis is used to investigate the external and internal elements which can show both negative and positive aspects for the project proposal. In the end, the conclusion is exhibited.

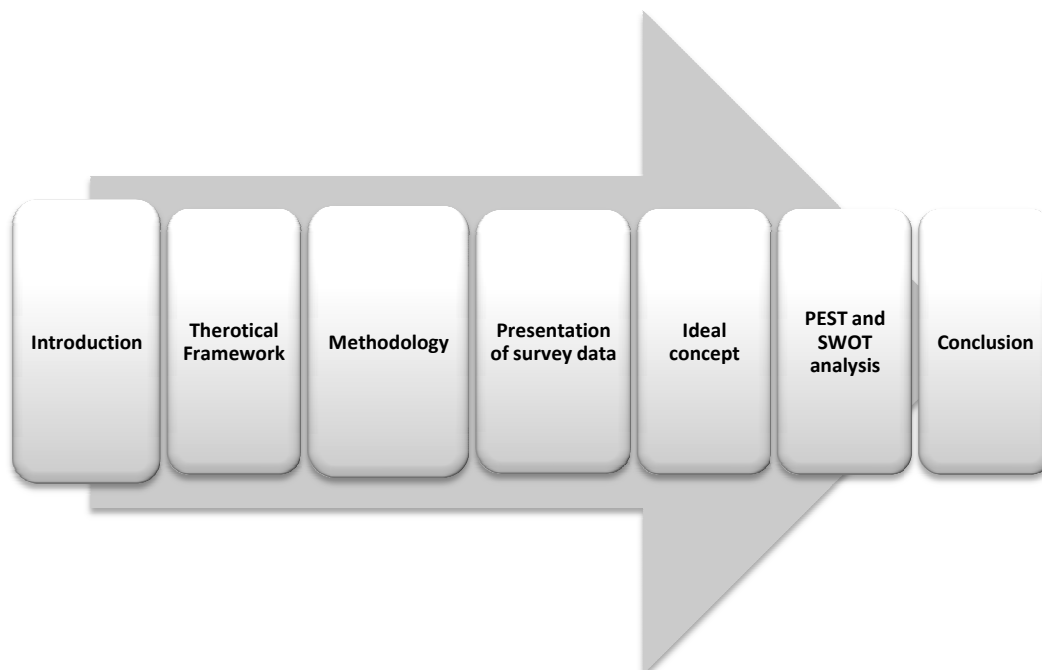


Figure 1: Report outline

2 Theoretical framework

The theories adapted in the literatures have provided guidance for studying the feasibility of rental communities.

2.1 Community

2.1.1 Definition and categories

Community can be defined as an area in which a group of people live and interact with each other. A community element consists of people and their surrounding living environment as well. In a community, people are sharing various common interests or elements, which have no clear limitation, and they can be economy factor, such as resources, risks, social life, and communication and information exchange (Wordiq, 2010).

The narrow definition of community can be the nature of interaction, which is informal and spontaneous in a group of people without goal-oriented and formalized procedure. One isolated small town or village can be called a community, where their sense of harmonious social form and imagination are added (Wordiq, 2010).

There exist many kinds of community patterns. “A community can be large or small; local, national, or international; real or virtual; cooperative or competitive; formal or informal” (Wordiq, 2010). From another perspective, community has three types of categories. Geographic communities focus mainly on the location or geographic boundary of the community. It includes local human-gathering area, suburb, city, village, district, even the whole earth. Either of above elements can be called a community. Cultural community can be defined as when people gathering together mainly for the sake of religious, multi-culture and common belief. Organizational community is a more formal established association, which includes family, political corporate and professional structure organizations as well (Pinoyhenyo, 2011).

2.1.2 Residential community

Residential community is comprised of various residents, who occupants at least one room or apartment and takes this community as a home to live in with or without their family relations. It is also called dormitory towns, bedroom communities, or commuter towns, which are located either in a town or city. It offers consumers or workers to support the commercial and industry business nearby and is regarded as one type of occupants of the typical community (Freebase, 2010).

The residential community used in this thesis is narrower than the above definition. It belongs with bedroom communities or dormitory community, which's main three factors consisted in this community are buildings, a group of young people and also the interaction among neighbourhood. These three elements dominate the whole community's system and operational management system.

From another perspective, as the groups of young people who gather in this community are all for the sake of renting an apartment, so there exist the common interests or goal for community forming. Thus this community can also be called cultural community as it has the overlapping elements. Meanwhile it contains parts of cultural community characteristics. Moreover, the community services are provided by the rental company and are under the management with one unified institution.

2.1.3 Community management

Community management is a measurement by which consumers or participators are involved and enjoy the services offered by a local community organisation or government. At the same time, the community organisation regulates investment and reward to measure the achievement of their business goals (Hinchcliffe, 2009).

Community management is now going through an immature stage during which excessive types of work need to be deal with. The task is not clearly classified and mixed in a wide range of areas thus beyond the community staffs' ability to cope with. However, community management has a tendency to be specialized into a featured area and brand territory in the future (Hinchcliffe, 2009).

The community management in the rental community is supposed to be controlled by a centralized institution, which has several branch-organizations to work together. Under this situation, the daily management work in this community will be operated well to insure the benefits of tenants and the company. The management contains keep a good order of moving in and out; make a perfect neighbour atmosphere; maintain a good safety living space; facility maintains; cleaning service and so on.

2.1.4 Factors influencing residential community forming

The factors that influence residential community forming can be categorized into four aspects, which includes community culture, geographical location of community, community service and community development.

- Community culture

Community culture is a form of living expressing informally transformed among persons or neighbourhood. It exists within the community's daily life, although nobody can tell its source and it is changeable, depending on the communicators and listeners. The communicators shared messages, news, experiences, exchange information and ideas. The transformer mode of community culture can be observation, speaking and imitation as well. The communicators shared messages, news, experiences, exchange information and ideas (The American folklife centre, 2010).

- Geographical location of community

The commuting distance is an important factor that influences the choice of residential community, which means the location of community is an important consideration factor for a tenant or household to decide to purchase or rent a dwelling. According to Berry Blijet, most of young people like to live close to their friends, family and social cycles, these close relations make them to put the location of community prior to other factors. Somewhat, the location of a community has determined the transport mode for residents to work or go out. Theoretically, people without a car prefer a place with good public transportation (Blijet, 2005).

- Community service

Community service is provided by individual or an organization, aiming at the benefits of community residents or public. Most of service is visual, such as facility maintenance, corridor cleanness, and safety insurance, etc. Those who provide the service can be a volunteer or be compelled by certain institution, such as government, court, and hospital. Community service can guide residents to morals and good values and is becoming a vehicle for mission and sense of responsibility. Furthermore, it

helps people to balance the gains and paying from the whole society, to instil a sense of civic engagement (Godbole, 2011).

- Community development

Community development can be defined as a skilled process based on the theory that community itself must be involved in and accepted this process to benefit from it. Apart from how community is working during this process, it cannot ignore key institutions' response to the community needs (Robinson, 2009).

The objectives of community development are to benefit all levels of the residents, such as, to make sure everyone knows what is going on in and out the community; motivate community members to show great attention to community decisions; promote leadership authority to certain good superior-subordinate relationship; maximize social cohesion of the community(Panorama, 2010).

2.2 Rental market

2.2.1 Rental market and categories

Nowadays, the housing issue is becoming an increasingly popular topic for society. For the development of society and the increasing population, adequate and affordable housing is one of critical aspects therefore it is significantly important to have a well-functioned residential market to create an extent stable environment to be able to maintain the demand of households in contemporary society (Robert, 2003; Miller&Geltner, 2003).

Normally the residential market can be divided into two parts, which are the residential purchasing market and rental market. However, housing is becoming more and more expensive which makes it is impossible for people with limited financial capability to have their own house. In this situation, rental is becoming more popular in traditional markets associated with vacation homes and investment properties. (Yang, 2009)

According to literature, the rental market includes no-profit and for profit markets and the article pointed out two extreme situations: one is pursuing to the maximum profit while other is non-profit. It does not mean that the price of a no-profit house is lower than the profited one and the reason for no-profit may be that the profit just covers the cost for example high management or maintaining fee. Normally, the public rental house belongs to a non-profit one and the main purpose is to ease the burden of the house problem while private rental house can be grouped into profit ones (Kemeny, Kersloot & Thalmann, 2005). The rental community in this thesis is the profit project which aims to get profit from house renting as well as facilities renting.

2.2.2 Factors to influence rental decisions

The studies for some countries show that the attitude of home ownership is shifting towards renting property instead of owning property, because of cutting social housing and housing benefit, as well as constrained funding for owner occupiers(Umberger, 2010; Mcqueen, 2011; Haffner & Boumeester, H. 2010).

If the purchasing market only supports the residential market without support by the rental market, it could result the unstableness of market thus may destroy the whole market. Moreover the rental market in great extent eases the burden of housing problems to be able to provide an option for people with limited financial resource (Yang, 2009).

Although the financial issue is an important economic indicator and more than 90% of persons prefer to rent instead of purchasing because of capital issue, there are also other economic factors that determine the rent decision making such as expected tenure, mortgage rate expectation, investment aspects of homeownership and budgeting risk. For people frequently moving, it is more economic to rent. Therefore, comparing with purchasing decision, people with less income and mobility frequently prefer to rent an apartment to live in (Miller & Geltner, 2003).

For the investment aspect of homeownership, if housing prices are stagnant, stable or inflation is less than expected, then renting makes economic sense from an investment perspective. The returns expectation in the stock market could also delay homeownership as tenants prefer to keep capital in the market, albeit at higher risk. The renting decision also is supported as uncertain maintenance and repair costs and unexpected increase in property taxes, which are produced by purchasing (Miller & Geltner, 2003).

Excepting the economic factors mentioned before, age is an important element determining the decision making process. According to the study of the US, the ownership varies dependent on age and the ownership rate is less than 20% for people below 26 years old meanwhile the rate with people above 65 is more than 75% (Miller & Geltner, 2003).

Furthermore, it is better to rent apartments since it is easier to move and there is little or no responsibility for maintaining the property, however it is hard to control the rent increase and there is no sense of community, stability and security (Miller & Geltner, 2003).

The origin of the concept of the rental community in this thesis is a combination of both advantages mentioned before, which not only offers a stable and safety condition for tenants, but also provides a human-orient option of free moving and no maintenance burden.

2.2.3 Rental market in Sweden & China

In Sweden the housing market is shared by 41% of small homeownership sector and 16% comparative and 43% of rental sector. As it is mentioned before, the rental sector includes private and public rental sectors. The public rental sector consists mainly of non-profit municipal housing companies. In order to maintain a stable market, a soft rent control system is implemented to achieve “fair rent”. (Turner, 1988) It is important to emphasize that public sector rent levels are consistent under a non-profit restriction are determined in negotiations between the municipal housing company and local division of tenants association. The rents are set through negotiation between the local tenant organisations and the local organisations of municipal housing companies. The negotiations take place every year and the negotiated rents serve as a yardstick for private rents. Meanwhile, the rent setting in private rental housing is a new round negotiation between the local tenants’ association and local association for private landlords. According to the act, rents are considered unfair if they exceed the rents in comparable units belonging to municipal housing company (Kemeny, Kersloot & Thalmann, 2005).

In China, house market is characterized of homeownership sector and rental sector. Furthermore, the rental sector also includes public rental and private rental sector. It is worthy to mention that the current low-income housing system in China which is the security system providing the low-rent housing and the economically affordable

housing to needy people. The government uses the national and social power to provide the basic housing for those needy housing groups by the transfer payment policy, and realize the equalization of the public service in the domain of real estate (Mohrd.gov, 2011).

2.3 The housing affordability and its measurements

Housing affordability is used as a complex index to describe a person's ability to purchase an apartment. This index is influenced by society and environment, and also the following factors such as local housing market, labour market, etc. People suffer from a high housing affordability stress when they make effort to achieve owning apartments (AHURI, 2011). Additionally, it is comprehensively believed that most people working in Beijing have a serious affordability problem, which means that it is difficult for them to buy an apartment as the sharply increase rate of house price (Liu; Wu and Reed, 2010).

From a more narrowed perspective, housing affordability can be explained in the form of house price to income ratio. According to Global Property Guide (GPG) which published this ratio, "The house price to income ratio is the ratio of the cost of a typical upscale housing unit of 100 square meters, compared to the country's GDP per capita". However, as the National Bureau of Statistics of China (NBSC) has stated, to find convinced house price statistics in China is a difficult task (Global Property Guide, 2011).

The house price to income ratio (PIR) has a theoretical foundation established on the foundation of own proprietary in-house research within GPG. The calculated formula is:

$$\text{House price to income ratio} = \left(\frac{\text{Price per square meter}}{\text{GDP per capita}} \right) \times 100$$

From Global Property Guide's prediction, the ratio in China should be much higher than that in most European countries whose citizens have the high income (Global Property Guide, 2011).

On the other hand, the house price to income ratio (PIR) is a ratio that can be also applied to measure housing affordability, which comes from the current market value of an apartment to annual income of a potential house consumer. When defined in a smaller consumer group, which includes the majority of people especially young and newly graduated people, who only own a low and lower-middle income, PIR is the ratio of the mean free-market price of house unit to the mean annual household income (Liu; Wu and Reed, 2010).

The PIR formula is as follow:

$$\text{PIR} = \frac{\text{Mean house price}}{\text{Mean household discretionary income}}$$

It has been stated by United Nations Commission on Human Settlements (UNCHS) that apart from the factor such as individual special city and location of an apartment, the reasonable ratio of PIR should fluctuate from **2:1** to **6:1**. In this situation, people can take advantage of PIR to gather information related to performance of housing market and also use it as a valuable tool and useful insight to measure their ability to purchase apartments. It is guidance for citizens to evaluate the impact of real estate on

living condition when they plan to consume a proportion of income to buy a reasonable level of apartments (Renaud, 1991; Malpezzi & Mayo, 1997).

Finally, according to availability of data, PIR formulation is applied in following chapter to calculate the housing affordability index, which indicates the purchasing power of house.

2.4 Feasibility study

A feasibility study is used by a research institution or individual in the aim of testing or predicting the future outcome of an action or operation is named as feasibility study. It is a detailed analysis, whose results can provide guidance to decide whether to carry out next actions (Hofstrand & Holz-Clause, 2009). Feasibility study is generally done before a project implementation of a designated task, in the form of evaluating the hidden risks (Enotes, 2011). According to Lahlé Wolfe, a feasibility study is regarded as a valuable tool and reliable assessment for a business plan. It evaluates various ideas in which mainly focus on identifying potential problems to provide in-depth process and measures (Wolfe, 2011).

There are five common factors existing in a feasibility study. Technology and system feasibility is based on outline system, to assess the future performance of the new system. It estimates the procedures, process and output of a project in terms of data collection and trends updating. Economic feasibility is both a time and cost based method, which is primarily used for new system operation effectiveness and it is also called cost/benefit investigation. Legal feasibility aims to check if the proposed system meets the requirement of permit within a law or regulations. Operation feasibility emphasises on problem solving and exploits opportunities to meet the requirement. Schedule feasibility focus on estimating the competing time to check if a deadline or given period is reasonable or not (Enotes, 2011). The feasibility study of this thesis can be classified to operation feasibility as it solves the existing problem and replaces with an effective proposal.

2.4.1 Feasibility study in real estate market field

Market and real estate feasibility is a branch of feasibility whose research content is mainly on parcels of real estate land and geographic locations inspection of a planned project. Its core value is to look into and intensify the significance of a chosen region. The main task of an operator is to decide the best location and also give the judgment of alternative land use. All these indexes should be based on a condition that the market study is carried on within a jurisdiction, which is a critical step for the next stage, such as a permitted application, qualified licence verification, etc. The content of market and real estate feasibility study covers from commercial land use; manufacturing housing to multifarious of mixed-types of real estate projects (Enotes, 2011).

2.5 PEST analysis

2.5.1 Definition

The PEST/STEP analysis acts as a tool for a feasibility study, which means the feasibility study is to analyze from political factors, economic factors, socioculture factors, and technological factors. Dating back to 1967 when Francis J. Aguilar first time mentioned ETPS, PEST or PESTEL analysis, it has more than 40 years history. In addition, there were several of taxonomy classification in a variety of orders for

example STEEPLE, PESTLE and PEST in development process and nowadays PEST analysis has proven to be more popular. (Rapidbi.com, 2007)

PEST is a tool that used to analyse the influence that affects business strategies, and a PEST analysis integrating with legislation and environmental factors is called PESTEL (Learningmarket.net, 2011). The purpose of PEST analysis is to incorporate different criteria for assessing and enhancing decision-making process now at the same time in the future, ensure that no macro environmental influence is omitted and it is normally used together with SWOT analysis (Tavana and O'Connor, 2010). The PEST framework includes all the aspects covered in the macro analysis framework mentioned before (Rapidbi.com, 2007).

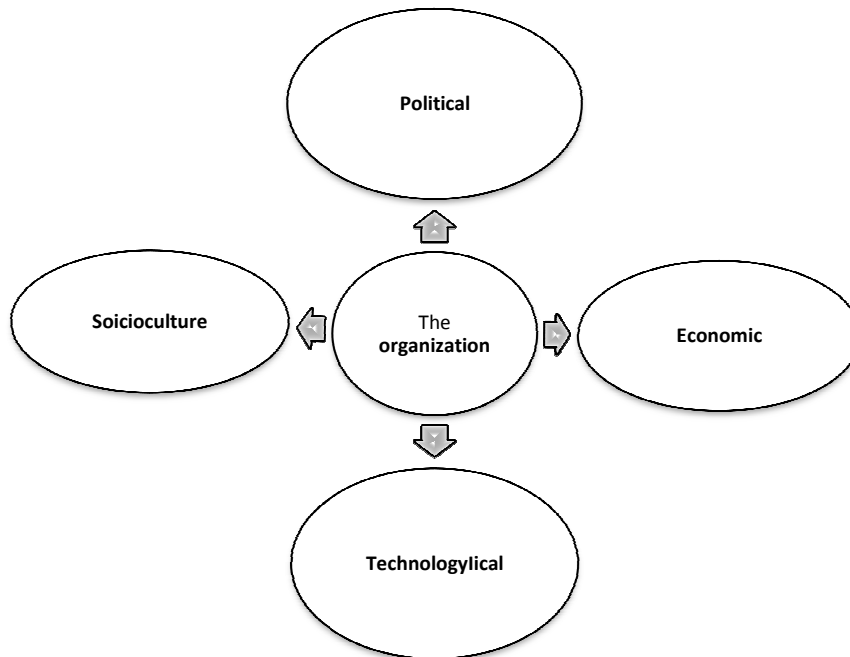


Figure 1: Framework of PEST (Rapidbi.com, 2007)

Normally, political factors include taxation, deregulation and industry, foreign trade regulation and so on. Political factor includes the policy that could change overnight as well as the laws, which are stable. Meanwhile, economic factors refer to the ones in the macro economy that have impacted on organization or companies. It is noted that there is a close relationship between the political aspect and economic factor. Normally, government influences the local economy by the application of political policy. Moreover, social or cultural factors are huge area, which includes not only demographic aspect such as population, age but also religious beliefs and attitudes change over time. In addition, the forth aspect is the technological factor which refers to new technology as well as the impact of implementing new technology (Campbell et al 2002; Johnson &Whittington, 2005).

2.5.2 Improvement and Limitations

A PEST analysis involves four aspects which lack broader consideration and the term of PESTLE is particularly popular since it involves the legislation and environmental factors.(Rapidbi.com)

Although many papers and research are done by implementing PEST and similar tools, Hussey (1998) refers that all the factors are not independent and they can influence one another and it is meaningless to isolate them and assess external factors

separately. Campbell et al (2002) also points out that it is difficult to analyze the macro-environment since it is complex and fast changing. In order to implementing the PEST analysis more efficiently, they concluded sixth techniques that should be considered. It can be seen below (Campbell et al, 2002).

- Being aware of limitations and inaccuracies
- Understanding the complexity of the environment
- Carrying out analysis continuously (because the environment is continually changing)
- Seeking to improve sources of information
- Using the analysis as only one source for organisational learning, along with other activities
- Using the information gained to inform strategy.

2.5.3 Implementation of PEST analysis

According to the literature study of PEST analysis, it is obvious that PEST analysis is a suitable tool to achieve the purpose of the feasibility study related to the youth rental community. In this thesis, the PEST analysis is implemented to appraise how the current policies affect the concept of establishing such community positively or negatively and the housing affordability of young people. In addition, the socioculture factor is investigating the current situation of rental market as well as the attraction of community essence. Meanwhile the technological factor focuses on evaluating the possibility of transferring the experience and knowledge from similar model.

2.6 SWOT analysis

2.6.1 Definition, limitation and implementation

According to Encyclopedia.com (2009), SWOT analysis is a strategic plan process used for analysing internal and external environment. The internal factors can be classified as strengths and weaknesses and the external factors can be divided as opportunities and threats. Johnson et .al (2005) in the book *Exploring Corporate Strategy* pointed out “ A SWOT analysis summarises the key issues from the business environment and the strategic capability of an organisation that are most likely to impact on strategy development.” They also stated that a SWOT analysis is used to assess how the external and internal environment influences on. (Johnson et .al 2005).

Although SWOT analysis plays an important role in strategic planning, the limitation is obvious. Koch (2011) based on the studies of former research categories two main grounds that criticize the SWOT analysis. Firstly, the framework of SWOT analysis only consists of four aspects which are too general, vague, and hard to manage in practice aspect. Moreover, lack of communication, discussion and verification could make a SWOT analysis not reliable. On the other hand, other criticism stated that it is a mistake to over formalize SWOT as well as its symptom. Under-estimation of the role of SWOT analysis can cause misinterpretations of SWOT results (Koch, 2011)

In this feasible study, SWOT analysis acts as a summary tool, which is combined with PEST analysis to appraise the external and internal influence. By using of SWOT

analysis, the positive and negative effects are listed to make an evaluation of the feasible study of the youth rental community.

2.6.2 Framework

The framework of SWOT is simpler comparing with PEST analysis. The strength involves the resource they have and capabilities, which can act as competitive advantages such as brand name, good reputation and cost advantages. Meanwhile the weaknesses can be considered as the contrary of strengths such as lack of reputation and high cost structure. The new opportunities for profit or growth can be revealed such as growing customers' need or loosening of regulation. Meanwhile changes from external environment can be considered as threats such as new regulations or increased trade barriers (Quick MBA, 2011).

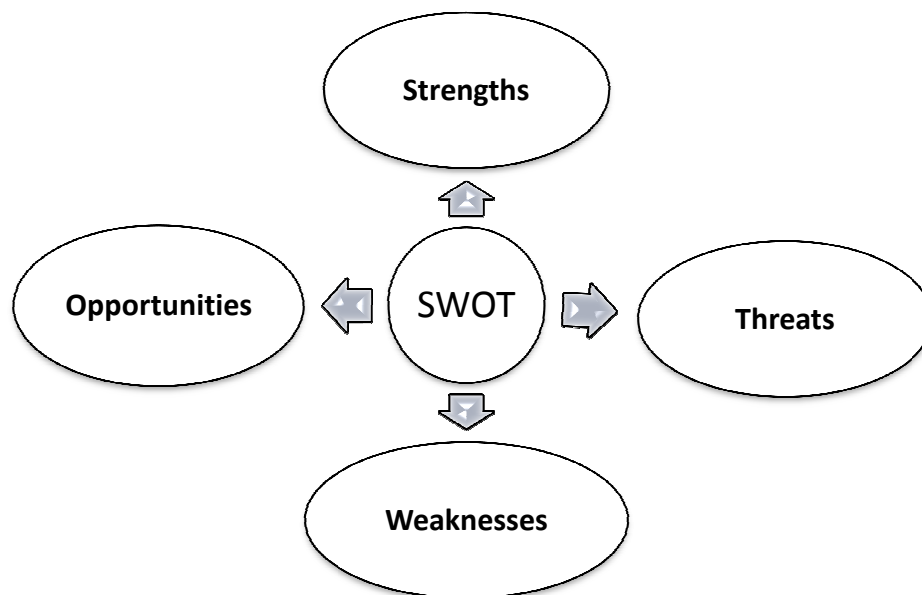


Figure 2: Framework of SWOT analysis

3 Methodology

In this chapter, the methodology, which underlies the methods using in this thesis, will be introduced to the reader. There are three different kinds of methods.

3.1 Literature study

The aim of the literature study is information collection so as to establish the foundation of the topic analysis of the thesis. First, an extensive review of existing reports and research journal is done as the basis of a feasibility study. A mass of information and data are gathered which contains the field of feasibility study, community, house affordability as well as residential rental market.

Needed information is gathered through literature study following by the analysis of the data sorting. The yearly data related to price of residential apartment and the income of target group is sorted out, according to the available database ranging from 2007 to 2010. Diagrams and charts are drawn to clearly summarize and visually explain the gained data. Moreover, the theories of PEST and SWOT analysis are also investigated and cited, which provide useful guidance to carry out feasibility study.

In addition, the situation for the future, which is predicated based on available data, has a high degree of uncertainty and further investigation should be done in the future as data is changing and fluctuating.

3.2 Interview

According to Kvale, the interview focuses on describing the meaning of the study topic by understanding the meaning of what the interviewees say (Kvale, 1996). The interview is useful for getting the story behind and digging for depth information related to the topic (McNamara, 1999). The interview can be conducted by mail, telephone and face to face. Comparing with mail interview and telephone interview, the face-to-face interview gives more flexibility so that the content can be improved, based on the interview situation and adding follow-up questions based on the answers. Moreover, unlike with mail interviews, it offers a high responding rate. Nowadays, it is a common research tool, which can be used, in academic studies and government surveys (Jaber & Jame, 2001). Based on the advantages mentioned and the study topic, which are qualitative, a face-to-face interview is chosen to investigate the management and service issues for interviewed company.

The company interview is carried out on 4th March 2011, in an office of one Rental Company located in Göteborg, Sweden. The majority of customers in the chosen rental company are students in Göteborg, which has almost the similar age group of youth rental community in Beijing. In order to get the most definitive answers, the questions have been send to the company on 25th February before the interview, thus the rental manager in the rental company has been suggested and appointed by the company as the interviewee. In addition, the Interview Company and interviewee are anonymous to the reader to get unbiased and reliable answers. The interview lasted for one hour during which the answers from the interviewee were recorded. A series of informal interviews are conducted with 3 tenants of the interviewed company. They can complement the interview answers for rental manager.

The aim of the company interview is to explore operation and management systems of studied company, which can provide strong basis and successful model for youth rental community in Beijing. Since the rental markets for these two countries are

largely different, the questions in the interview have mainly focused on the services and management of rental apartments, which can lay foundation on the technological reference for rental community in Beijing. (See appendix II). The answers from the interviewee has been summarized later and applied as one of the important factors in the feasibility study (See chapter 4). The purpose of the tenants' interviews is to investigate the significant factors that influence their rental options as well as the services they enjoyed.

The rental manager has showed a series of data related to management system of the rental company as well as the objective judgements from his perspective, based on which the basic operational principles of rental community can be achieved. Moreover, random interviews were done among 3 tenants who living in this rental area. These informal interviews lasted about 10-20 minutes and the main topics are the reason why they chose to live here as well as the feeling of their community. Their answers have been summarize in the content of feasibility study, which is important for thesis research to gain a more comprehensive assessment of the knowledge transferring from interviewed rental company.

3.3 Questionnaire study

“The questionnaire is a set of questions given to a sample of people” and it is useful to find out the attitudes, thoughts with a random sample (NVCC, 2011). Moreover, it is easy and quick to get enough information in a short time. However, the response rate could be low and the quality of information is largely depending on the quality of questionnaires and responders (Human resources, 2011). Additionally, the questionnaire is helpful for remote survey since it is not limited by distance if it is conducted by email and online survey. For this thesis, the study area is Beijing, which is far from Sweden, and we are aiming to find out the current accommodation situation and attitudes of young people related to the youth rental community, which is a large amount of information. Therefore, a questionnaire survey is a good choice for this situation.

The questionnaire survey is conducted by email and online-survey, which has lasted for 35 days from handing out the questionnaire paper until receiving the response. The website that was used for questionnaire survey is <http://www.diaochapai.com/>

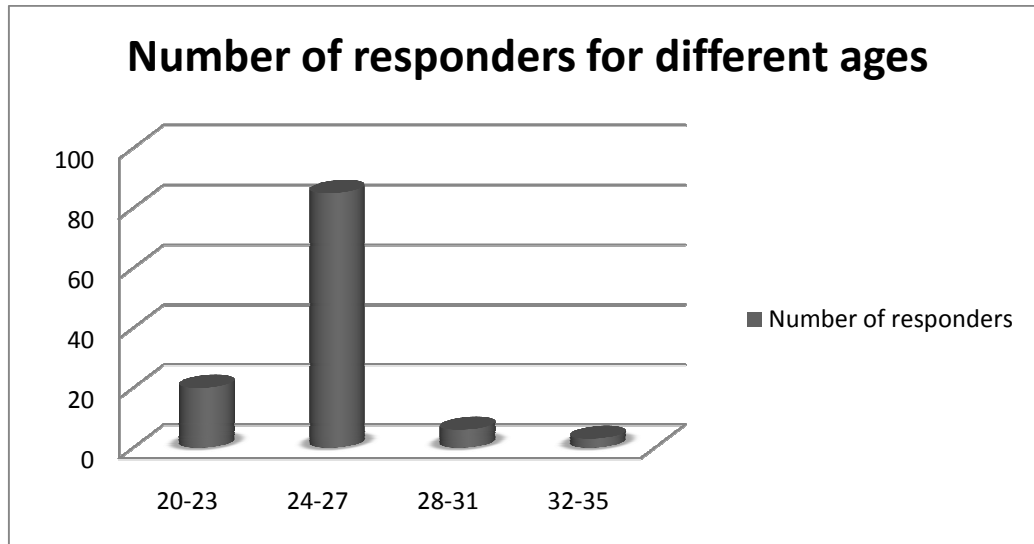
The aim of questionnaire is to provide a research foundation for the feasibility study based on answers and response of questionnaire objects. The questionnaire mainly aims at investigating the current accommodation situation and, young people's reflection and attitude towards the proposal of new rental community in Beijing.

The contents cover the basic information about responders, the income level, accommodation types, the satisfaction degree for current accommodation, the attitudes for youth rental community and the suggestion for facilities (see appendix I). The information collected from the questionnaire is analytical processed, which is meaningful and to be regarded as one of the guidance for the feasibility study. Moreover, all the data presented later is end up on March 22nd 2011.

The questionnaire results are the sources of ideal concept design of the youth rental community, which means the design partly based on the suggestion related to the community facilities. Moreover, the PEST analysis is also supported by the results in terms of income level, attitudes of current accommodation and youth rental community.

The target group for questionnaire study is young person who is now living in Beijing and between 20 years old to 35 years old, whose age matches with the research objects of our rental community. There are 189 questionnaires that are sent out and the total responders are 114 thus the response rate for questionnaire survey is 60.3%.

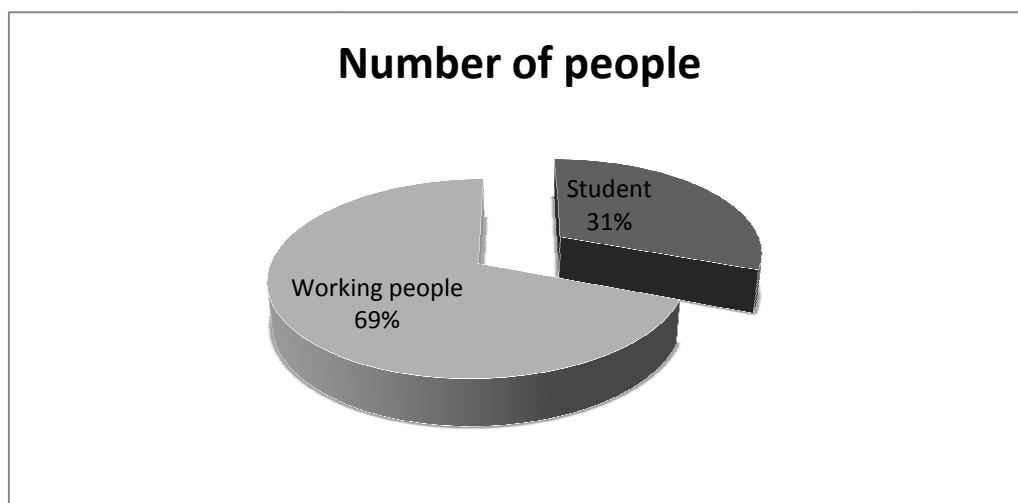
Among the target group, the main responders' age mainly range from 24 to 27 which takes up 74.6% of total responds and following by the group with age from 20 to 23 which is 17.6% and for detail information, please see Bar Graph 1.



Graph 1: Age of different responders

It is done among target group, which can be classified to two categories,:(see Pie Graph 2)

- Undergraduate students: who are now studying in universities or colleges and will be our future consumer of rental market and takes up 31% questionnaires.
- Working people: who have already worked less than five years and is regarded as important source of rental community, the rest of 69% questionnaires have gone to them.



Graph 2: Categories of responders

As it is known, a questionnaire study is a common and useful method for collecting information. The main theme of questionnaire survey is to investigate if a new rental community can be accepted by young people and further how they feel this community should be look like as well as what services and infrastructures should be provided to meet their needs.

The questions are organised both multiple choices and free answers, in which the former have been sorted into chart forms or graph statistics meanwhile the latter have been summarize in table descriptions forms. Additionally, the data has been categorized in the form of answer-oriented style instead of responders' age group, in which their answers have been compared and divided as a result of proportion demonstration, then described into different charts and tables.

According to the results, it is obvious that the questionnaire survey is largely reliable since the responders match the target group of the community and the average income of responders fall into the scope of the information found from CRESI database. However, the uncertain factors in answering the questionnaires by respondents cannot be ignored and the limited number of respondents has also increased the uncertainty and deviation of questionnaire result. In this questionnaire survey, the number of the sample is 114, which is a small group that could reduce the validity.

3.4 Feasibility study

Feasibility study is an overall methodology of this research. It is a theoretical foundation of the PEST and SWOT analysis, together with which establish an appropriate method structure of this thesis.

3.5 PEST and SWOT analysis

In this essay, PEST and SWOT analysis tools are implemented as the carriers for the feasibility study of a youth rental community. PEST analysis is conducted by investigating how political, economical, sociocultural and technological factors affect the possibility of establishing such a kind of community. SWOT analysis is used as summary tools to list threat, opportunity, weaknesses and strength for this project.

4 Presentation of survey data

4.1 Result of interview from the company

The interview started with a basic information introduction of the company, which has been stated by the rental manager that: the company a student housing company, non-profit organization, 60 years history; It has 7224 rooms and apartments, of which 5611 owns by the company; The company now is working on trying to balance the relationship between lower rent to satisfy the customers and cope with bank tax.

This rental company provides normal services to attract their tenants, such as wash machines, party room, laundry rooms, internet, sport facilities, pubs, and student council. All of the above are included in the rent. Which needs to be mentioned is that these services are similar in whole Sweden. According to the company's application procedure, the applicants should be above 17 years old and belong to students of this city, and the application success depends on the queue rate. The queue, which has the longest time, had the priority to own the apartment. In this situation, the average yearly vacancy rate of the rooms is less than 1%, among which June and July are the two months those are easy to be vacant as they are the seasons for customers going back home.

In the rental manager's opinion, this company is always improved and always gets better. They have yearly plans to improve the company and do it step by step, besides, they have regular meetings with other rental companies and adjust measurements according to Satisfied Customer Index, which is judged by customers then remark a point. They always make plans for the next year to make great satisfaction. From the benefits of the company, it is too expensive to have a guard at the entrance in Sweden, and their customers can call the security company to deal with these problems. The company or customers pay for the fee of security service if they cause problems.

Additionally, it is a tendency in Sweden to provide no furnished room as it costs too much to replace the furniture. The money cost by new furniture takes long time to return, and it costs extra funding to deal with the old furniture. It is unnecessary for some local people who want to decorate their own apartments. But it has positive aspects to have furnishes at the beginning for new settlers. In China he guesses it better to be furnished because China has different transportation cost which is cheaper than that in Sweden.

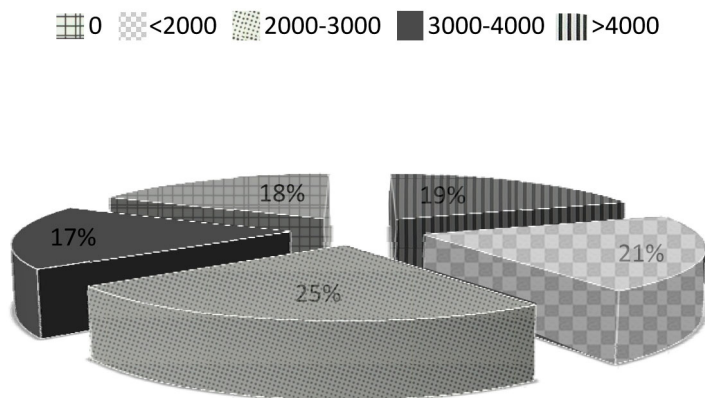
The rental manager stated that the public rental company has no advantages when comparing to private rental landlords, but their services are better. Moreover, their customers are in the same situation and they are young, students, who have the same social life. This is also important for people in a new city, it is easily make friends in a same situation and easy to get life information.

Furthermore, the rental manager expressed the idea that the youth rental community will be accepted by Chinese market as he thought it is nothing with culture, but about demand! If it is something to be need then it is a good idea to carry it out as Chinese people somehow need place to live. But he knows little about the Chinese social life. The rental manager predicted that the youth rental community in Beijing would operate as Chinese young people have the need, and the location is very important as well as a fair system of queue rate. What the community needs to do is to provide something better than other options, consider that if it is nicer, cheaper, better party there? He also emphasized that it is not all business and the community has to provide something special.

4.2 Results of questionnaires

The questionnaires survey act as the basis of ideal concept design and PEST analysis. In order to achieve this purpose, the survey mainly refers to income level which could partly indicate the purchasing power of responders; the current accommodation type and satisfaction degree which both can be used for analysing the current rental situation; and the attitudes for youth rental community that can indicate the potential market and key factors that influence decision making. In addition, the possible facilities could included in the youth rental community are also investigated to support the ideal concept design.

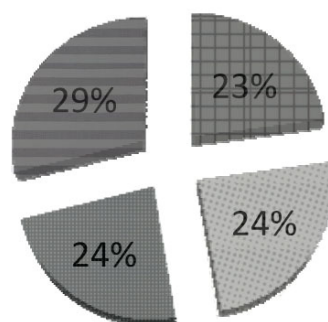
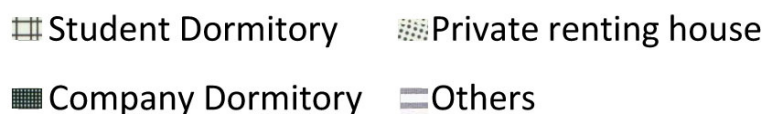
Income Level



Graph 3: Income level of responders

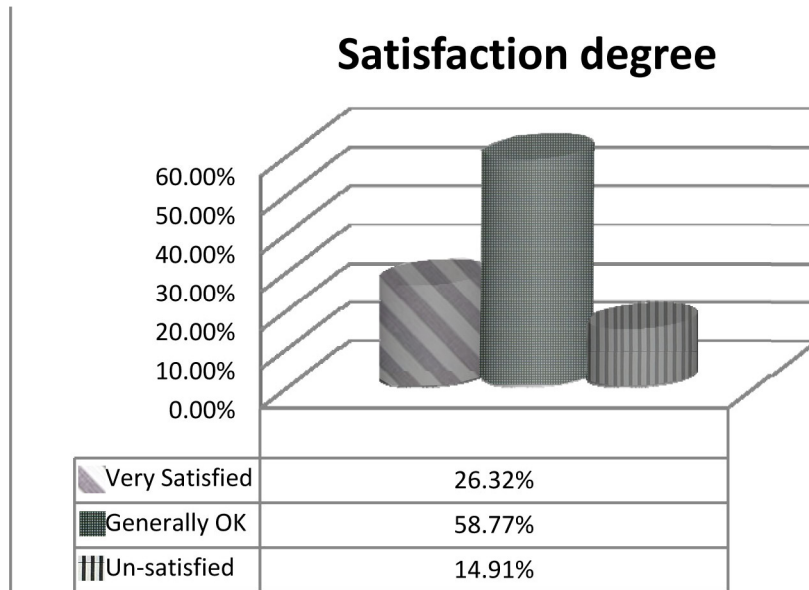
It is known from the Pie Graph 3, the differences between different categories are small and the largest income category is among 2000 to 3000, which accounts for 25% of total responders. Based on the data shown above, further calculation of PIR for responders are done in PEST analysis.

Accommodation type



Graph 4: Accommodation type

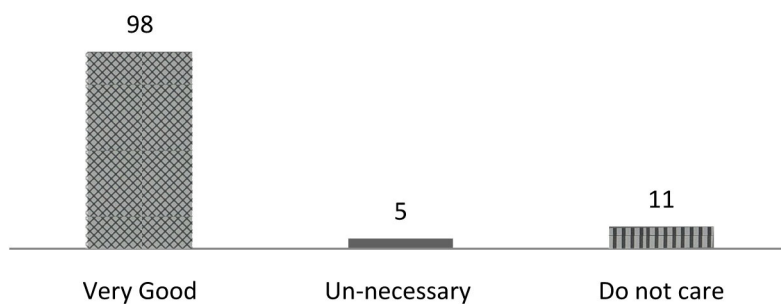
As it can be seen from the Pie Graph 4, there are 23% persons living at student dormitories, which is because 31% of responders are students. For the working people, the data for free options are average.



Graph 5: Satisfaction for current accommodation condition

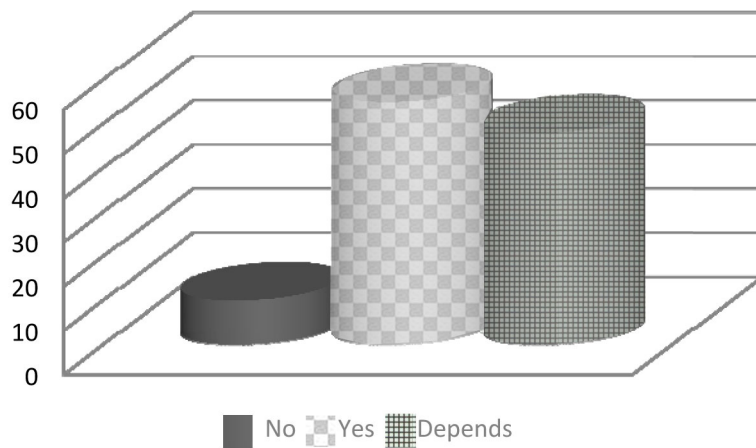
The Graph 5 indicates interesting information regarding whether they are satisfied with the current accommodation and 58.8% of responder consider that although there are some small problems, generally it is fairly OK while 26.3% is very satisfied with current living place and only 15.0% do not like the current accommodation.

Attitudes for Youth rental community



Graph 6: Attitudes for youth rental community

The graph above provides interesting data regarding the attitudes for establishing a youth rental community and 86.0% of responders consider it as a good of ideal while 4.4% believes that it is not necessary and 9.6% of responders do not care about that.



Graph 7: Interesting in moving into a youth rental community

The Graph 7 shows that 55 person prefer to moving into if the youth rental community has been established which takes up 48.3% of total responders while 48 person accounting for 42.1% consider that it depends on the condition of the youth rental community which mainly include the price, location and services. The left which does not want to move is mainly because they are planning to buy an apartment, they prefer living with their parents at home, or the working companies provide accommodation.

The questionnaire survey also investigates the facilities that should be included in the youth rental community. The table one summarizes their answers.

Entertainment facilities (17%)	KTV, Party room, Bar, Cafe, Cinema
Domestic facilities (58%)	Super Market, Post office, ATM, Clinic, Restaurant, Cafeteria, Parking area, Laundry
Fitness facilities (14%)	Football and basketball playground, Swimming pool, Gym
Others (11%)	Library, Reading room, Internet, Hair salon

Table 1: Questionnaires survey result for facilities

5 Ideal concept

For a better understanding of the youth rental community in Beijing, it is necessary to introduce its general layout and functional demonstration. The purpose of this chapter introduction aims at presenting readers with a basic model of the main discussed object, which can be regarded as a prolusion and convergence for the latter feasibility study.

5.1 Concept sources

The function design of youth rental community is based on the analysis of young people's actual needs which are summarized from the questionnaire survey (see chapter 4.2). Moreover, the layout composition of the community has taken the Swedish rental community as a reference, combined with the information gained from the interview (see chapter 4.1).

At this moment, it is difficult to predict the adaptability of this new rental community in Beijing from an overall point. Even comparing to the interviewed company, which operated well in Sweden, China has a totally different social situation and market, but both the result of questionnaire and interview showed a good prospective of this rental community. It is necessary to excavate deeper for the feasibility study in the later chapter, which can offer a more comprehensive and persuasive factors to demonstrate the adaptability of youth rental community in Chinese market.

5.2 Overall design concept

In this thesis, the embryonic form of this community has been presented as the following contents. Its design concept can be divided to three aspects. Firstly, it is designed to get rid of the old rental system of current problem market. In addition, it has been programmed to combine a new problem-solving system and try to create a fresh and perfect living space. Furthermore, the layout and function have taken the actual situation of young people into consideration.

The building is designed to be single apartment oriented in which young people who live here can abundantly enjoy the freedom of non-shared private indoor environment and it also supplies young people with a relatively stable and comfortable living environment. Fashions, human-oriented and comfortable are the main characteristics and objectives for youth rental community. The youth rental community not only provides a comfortable living place but also a fashionable and free way of life.

5.3 Layout and function design

The following section illustrates detail layout and function of the community.

5.3.1 Multi-types of housing

In order to meet different needs of young people, the community provides various types of apartments, which include single room, two-bed room, and family-type apartment. Each room is equipped with furniture which could meet the needs of young people's basic live and people can move in without the inconvenience of buying furniture.

Room/Function	Size	Accommodating (Number of persons)
Single room with shared kitchen	18	1
Single room with kitchenette	24	1
Two-bed room	30	2
Apartment	75	3-4

Table 2: Accommodation types (the design based on the accommodation type of interviewed company)

5.3.2 Public space as an extension of interior space

Because the community is mainly single room type and the space of each room is relatively small for the sake of economic rent. In order to expand the interior space, public space can be used as an extension of interior space. It can serve as an extension to meet the household's leisure, fitness, communication, entertainment and other needs. The following functional facilities are based on both the results of interview and the answers from questionnaire responders.

Public	Function
Fitness room	Swimming pool, Gym
Laundry room	24 hours self laundry
Storage room	Space for storage personal stuffs
Common room	Space for party and meeting the guests.
Public square	Space for walking, barbeque, sunbathe, leisure and so on

Table 3: Functional facilities

5.3.3 Versatility

The community includes post offices, bank and other municipal facilities meanwhile coffee bar, leisure club, library and fitness room which also are included can provide more fashion and healthy life. The tenants can easily enjoy better services, convenient transportation, and sound ancillary facilities.

5.3.4 Service

The community is responsible for managing the safety and security system, sanitation and so on. It also provides 24 hours cold and hot water for the tenants and the internet is available at interior space and public area.

Public	Description
Super market	Provides the basic need for living for example food, vegetable, cloth and so on
Multi-function entertainment hall	Provides leisure space to tenants and people living nearby. It includes coffee bar, leisure club, billiards hall and library.
Beauty salon	Provide the hair-cut services for young people.
Clinic	It is very important on the case of sickness emergency.
Mini-Cinema	Cinema is young people's lover place
Dinner hall	It offers various kinds of food
Parking area	Provide the public parking space for ones who owns a car, bicycle, motorcycle, etc
Garbage room	Provide garbage cleaning service and recycle for the perfect outdoor environment

Table 4: Public facilities (combination of facilities of interviewed company and questionnaires survey)

6 Feasibility study

The PEST methodology has been applied to analyse the factors, which can influence the result of the possibility to establish a youth rental community in Beijing.

In the research of political factors, it contains the laws, regulations and policies published by Chinese government, which are related to rental market and housing price control. From which the government's attitude and estimated response to the rental community in Beijing can be reflected in this thesis. Then through analysis of the economic factors, the demand of youth rental market can be conformed, which can predict the development prospects of the rental community in Beijing.

It will be followed by the socioculture factor which will evaluate the current situation of rental market, together with the analysis from the perspective of community essence, the necessity and advantages of youth rental community can be demonstrated. Finally, the technological factor, which uses the existing technology and example in both Sweden and China as a source of reference, has provided a firm foundation of feasibility study of youth rental community in Beijing.

6.1 Political factor

6.1.1 Policy for control the price of housing

In order to cool the property fever in China and maintain a stable and healthy growth property market, a series of policies were announced to control the sizzling housing market.

The policies were announced in 2010 April including down payments for a second house must be more than 50% and mortgage rates for second house should be raised to 1.1 times as the benchmark lending rate. It has been initially to suppress the high speed increasing housing price. In order to consolidate the result of former policies, the state council announced new measurements in September including the minimum down payment for the first house should be more than 30% and stop fund loans for a third house purchase. (Law110, 2011) To continue solving urban housing problems and promoting the healthy development of the housing market, the eight new measurements were released by the State Council which include that property price control target should be set by local government and it is published by the end of March. Meanwhile, properties sold within five years of purchases will be subjected to a tax and so on. (Liu, 2011)

Because of price control policies, consumers chose to wait instead of purchasing and new properties sale doldrums. A rapid decline in trading volume after the introduction of policies only indicates that the policies suppress the housing price increasing temporarily (Zhongguguwen, 2010). House price will not significantly increase because of implementing the policies, however, it is impossible to lower the house price and the house price will still keep in a high level which means it is still impossible for people with limited money to buy their own house. Additionally, by increasing the down payment for the first house and stopping fund loans for third house purchase, the group of people who are high income earners and people for investment purpose will not be considered as a threat. On the contrary, for middle class and low-income people, these new measurements can be seen as barriers which increase the difficulty to have their own house because of limited funding. Therefore the new measurements have a great impact on the middle and low-income people.

The study group of this thesis as mentioned before are people with ranging from zero to five years working experience and they can be grouped into middle income people. For these people, renting house is possibly an economic solution since the new policy restricts house purchasing and the demand for the rental market is increased by implementing series measurements.

6.1.2 Policy for public rental house and low-income rental house

The government issued a series of measurements to control the house price and the same time, the state council also announced a number of policies for development of public rental housing and improvement of the housing supply system. In order to cultivate the housing rental market to meet the demand of middle and low income families and guide the rational house purchase for customers, the new policy is issued and it can increase the supply of public rental housing and affordable housing by construction, rebuild, purchases and long term rental. In order to actively and steadily push forward the establishment of a sound public rental housing system, the governmental organizations and communities should be involved and the local government should increase the investment in this aspect by implementing support policies in land, taxation and financial aspects. Additionally, various types of enterprises and organization should be fully mobilized in investment and operation process of public rental house (Law110, 2011).

However, the new workers and workers with a stable job are not included in the current security system. Moreover, the public rental house can only provide basic facilities for tenants. Although the new policy stated that the scope will be expanded, it takes time to implement and more people should be taken into consideration which does not only restrict to the young people. Therefore renting private houses are by far the main choice for them; meanwhile the young rental community provides another option. Compared with a private house, the youth rental house provides more systematic management and sound ancillary facilities. It can be better to meet the demand of high living quality for young people (Detail information about the comparison of private and youth rental community will show below). However, in future when youth also are involved in public rental policy, it may become a strong competitor since it has the government support, which indicates that the financial issue is not big barrier for them. Comparing with them, the new rental community as a new business concept needs a strong funding to support.

However, the youth rental community is the product that is complying with new policy, which could cooperate with the government. The measurement including reducing the land using tax and property tax can be used as advantages for the public rental market. Therefore, by corporation with the government, the risk for investment and operation of youth rental community can be reduced. Furthermore, the youth rental community, which is studied, is similar to public rental housing and the only difference is that the target group focuses on the young people with working experience from zero to five years.

6.2 Economic factor

Economic factors play an essential role in determining the possibility of establishing a youth rental community and it is important to evaluate housing affordability to analyse the feasibility of this community. This chapter generalizes the housing affordability analysis as the economic factor of PEST, which can be divided into three parts. The first two parts are housing prices in Beijing and income levels of the target

group, both studies provide the foundation and data based for PIR formulate. The last part is PIR analysis and according to which the housing affordability of young people can be figured out.

6.2.1 Housing price in Beijing

The housing affordability analysis is a critical part of the feasibility study, of which the price of house has taken the role of decision factor. Beijing is the capital of China and also the economic and business centre, thus the price has been always a hot topic among citizens.

The data is collected according to National Bureau of Statistics of China from 2007 to 2010. The numbers in the appendix are the housing price on sale in Beijing's eight different urban districts. After calculation, the average housing price has been figured out and showed in the following chart.

It is obvious from the chart that the price shows a rapid increase tendency from 2007 to 2010. In 2007, the price of apartment/per square metre is 10589 RMB/m², however this number has risen quickly in 2009. Furthermore, the housing price has come up to 19866 RMB/m² in 2010, which is almost twice of that in 2007.



Chart 1: Average housing price in Beijing from 2007 to 2010 (source from CREIS database; detail information see Appendix IV)

According to Beijing Bureau of statistics, **19.45m²** has been used as a standard of average property area per person (Beijing Bureau of statistics, 2008). Furthermore, based on the study of Liu, Wu and Reed, it has been stated that the majority of residential property area in Beijing is 60m², which has been applied as a standard dwelling size (Liu; Wu and Reed, 2010). Therefore, in this thesis, it is reasonable to choose **20m²** of apartment area for a single young people in PIR formation to reduce the complexity of calculation.

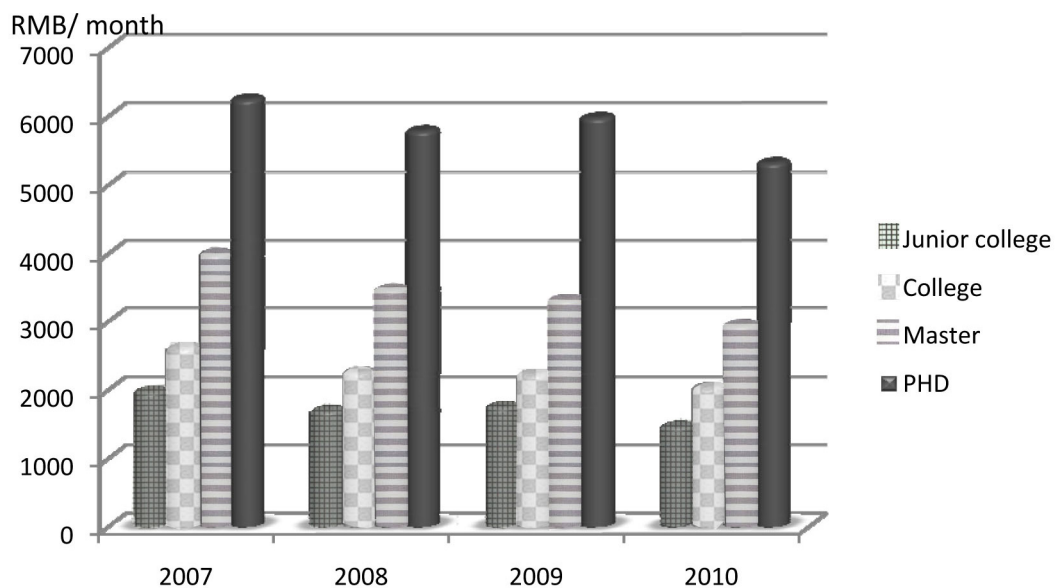
In light of alliance Secretary-General of China's real estate manager, the housing price of cities, like Beijing which are lack of land resource with great demand for housing, it is very hard to control and predict that the rate of increase for housing market in Beijing will be 10%-20% by the end of 2010(Chen, 2010).

Moreover, based on the personal view of Chen, an economic information daily reporter, it is confirmed that Beijing's housing price will rise up beyond 20% and exceed that in Hong Kong. The same idea and judgement has come from Ren Zhiqiang, Chairman of Beijing HuaYuan Real Estate Group, who has made a prediction that Beijing's housing price will be up even higher as long as people are willing to squeeze in Beijing. A director of marketing case in Beijing has presented in a meeting that it has become stable compare to the housing price in 2009, but the future trend will continue rising(Chen, 2010)

6.2.2 Income of target group

In the light of the explanation of housing affordability, the income of Chinese young people is one of two factors determining the PIR ratio. The income data consists of four levels of graduated people, whose education backgrounds are junior college students, college students, master students and PHD students as well.

The income data covers the monthly salary of young people in Beijing from 2007 to 2010. Compared to the housing price chart above; it is easy to find that the income level has showed a stable tendency. It is not like the housing price trend that is keeping rising, the income of young people is with little change modest of which some salary number is even decreased with time. For example, all salary level in 2007 has is higher than those in the rest years of 2008 to 2010. Additionally, the annual income is sum up 12 month of average monthly income. From the following chart, it can be calculated that the average annual incomes are respectively: 44535 RMB in 2007, 39684 RMB in 2008, 39885RMB in 2009 and 32325 RMB in 2010(see Appendix 8.3).



Graph 8: Income of young people in Beijing from 2007 to 2010(source from: job 168.com & manage.org.cn)

Housing affordability analysis in Beijing

Housing affordability can be measured in the form of PIR, which is the result of the current market value of an apartment to annual income of a potential house consumer (Renaud, 1991; Malpezzi and Mayo, 1997). It can be seen from above PIR formulation

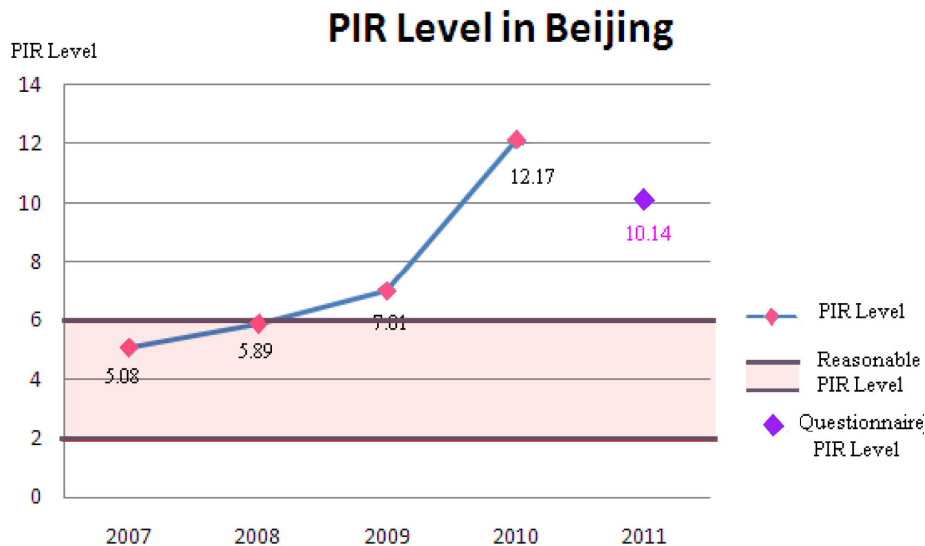
PIR format Year	2007	2008	2009	2010
Housing price on average	226080	233600	279520	393280
Income of young people	44535	39684	39885	32325
PIR	5.08	5.89	7.01	12.17
Income of questionnaire (estimated data)	-	-	-	38784
PIR of questionnaire	-	-	-	10.14

Table 5: PIR ratio calculation number (the monthly income of questionnaire is 3232 based on Pie Graph 1)

The PIR has a fast growth from 5.08 in 2007 to 12.16 in 2010. According to United Nations Commission on Human Settlements (UNCHS), the reasonable ratio of PIR should fluctuate from **2:1** to **6:1**, which has been mentioned before (Liu; Wu and Reed, 2010). However, even in 2007, whose PIR has not exceeded the boundary of 6; it is biased towards to the PIR upper limit.

In addition, in 2009 the PIR has become 7.01 from which it can be speculated that the possibility has been diminished for young people to buy an apartment in Beijing. Furthermore, the situation has gone into be worse as the PIR is 12.17 which is more than twice of reasonable PIR ratio.

The PIR comes from the questionnaire group in 2010 has also been calculated and the number is 10.14, which is a little lower than the result from UNCHS. The reason is maybe that the questionnaire group is relatively small, comparing to the statistics which is on a national scope. Additional, the PIR result from questionnaire has close relationship with the questionnaire object selection, and it is normal for the existing of result deviation.



Graph 9: Housing affordability analysis of young people in Beijing from 2007 to 2010 (the pink number is the PIR number of questionnaire survey group)

Zhong who has studied on Chinese Academic of Social Science (CAAC) had made it clear that 85 percent of Chinese people cannot afford buying a house, especially in big and densely populated cities which gather many educated people desiring to work and live here (Chong, 2010). At the same time, Beijing is become a narrowed city in which the land resource has gone into more and rarer thus the real estate organisation will pay more money to buy the land. When this investment cost and profits are planned to be recovery from the housing consumer, it is obvious for the existing of housing affordability difficulty.

From the housing affordability analysis above, it is very difficult for young people in Beijing to own a house so far. It can be predicted that PIR index will continually increase which means the lower purchasing power. Under this situation, it is necessary to build a rental community in Beijing to ease the burden of impossibility of affording a house for young people. Before the young people have a house of their own, this community can be their temporary home. According to the questionnaires survey, 71% of responders are respectively living in private renting house, student dormitory and company dormitory meanwhile the rest have other options that some of them living with their parents. Therefore, it can be concluded that more 71% of responders do not have their own house and the rental community can be one of their options.

6.3 Socioculture factor

Socioculture factors take up a crucial role of establishing a rental community in Beijing. On the one hand, it contains the analysis of the current situation of private rental market and also the low-income public rental system as well. On the other hand, the cultural life and interaction existing in a community will be another perspective that is taken into account, which is believed to prove a viewpoint for the possibility of youth rental community in Beijing.

6.3.1 Privacy rental market

There does exist a private rental market in Beijing, but what these apartments can provide is only buildings, most of which come from privacy apartment owners. Under

this situation, due to the lack of management and legal supply from the landlords, many of the negative issues occur in the rental market. It has been presented by Peike Su that if the government can introduce a series of policies to regulate the rental market, at the same time, make sure the rent is reasonable stable, many a people will prefer renting an apartment instead of buying (Zeng, 2010) .

At present, both for the tenants and landlords are the lack of legal awareness to guarantee the rights and obligation, although some of them have signed a personal contract when the tenants have decided to rent an apartment. However, most of these contracts biased in favour of the interests of the landlords. Some young tenants blindly seek cheap house rent; in this case, their own interests are ignored when they award a contract. Even some of the tenants believe that the contract is just a superficial form and it doesn't work at the time of conflicts occurring between tenant and landlords.

Additionally, the situation in the Chinese rental market can be summarized as a confusion phase without systematic management. Based on the view of Peike Su, a commentator from CCTV News channel financial, the current private rental market has given an unsafe feeling and uncomfortable experience to the tenants, not to mention that the feeling of home and belongings. It is because the private landlord can highlight the price of rent at their wills or bundle off the tenants anytime at random of excuses. Moreover, it is becoming increasingly difficult for ones to rent a satisfactory apartment in the range of permissive economic condition (Zeng, 2010).

As has been stated before, the problem needs to elaborate on that the safety of tenants cannot be guaranteed under certain circumstances. As the new tenants know little about the surrounding environment of the apartment that they will rent, it is very easy for them to be cheated or to rent an apartment that has annoying neighbours living beside. Some may even rent in a high crime area that stolen is common. The situation is more serious when the apartments used for rent have a problem of quality or even can be called dilapidated buildings, which are hidden by landlords. In this case, it is much more dangerous for tenants to live in this kind of buildings, not to mention that their legal rights can be guaranteed.

From the perspective of landlords, the irregularities can also bring some troubles and be a headache for the private house owner. For example, some tenants sublet the apartment for the sake of earning money and the landlords know cannot control it as almost private landlords live quite far away from the rented apartment. For some young people who prefer nightlife, they hold a party on a regular basis or bring friends home to pass the lonely times, which will disturb the neighbours especially the elderly people.

6.3.2 Public rental market

In addition, the public rental houses are under the control of government, which is called low-income rental housing.

However, the selection standard is so strict that it is too difficult to apply successfully. The public low-income rental housing in Beijing is mainly suitable to the low-income needy families which means that young people are not included in such a scope, as the definition of low- income is on the following two judgments: firstly, the monthly income must be below 450 RMB; secondly, the living housing area should be no more than 10 square meters (9ask.cn, 2010).

Furthermore, it has been stated by the director of housing ensuring policy planning office Shaofei Cui, that the selection condition will consider special families, such as, one of the family members are elder or disabled people above 60 years old; or family contains the seriously ill members; and military personnel can have the priority to get the rental housing as well as the house owner whose old building is taken over by the use of government and needed to be relocated.(Xu, 2010) All these priorities are out of young people's characteristics, in other words, young people in Beijing can impossibly reach the application standard to enjoy the welfare and service of low-cost public rental housing.

In fact, the application condition is limited to local people with registration of Beijing authority. The population of the city is largely contributed by immigrants who cannot be registered as residents within a short working time, thus it is obviously impossible to enjoy the low-income housing benefits.

6.3.3 Demand of rental market in Beijing

If the rental market is under good control of the related institution, which ensures to provide the tenants a fair and transparent atmosphere, more and more people cannot be house slaves of impossible high price (Zeng, 2010). According to the prediction of a research centre of real estate, the future needs of rental markets in Beijing will be more diversity, as Beijing will be gathered by all kinds of tenants for various reasons of closing to work place, taking care of children and elderly people, relocation, business entrepreneurs, and seeking an employment as well. Furthermore, it has been believed that a lot of people living in Beijing will choose the rental life as a long-term consumption pattern (House.focus.cn, 2010).

Based on the questionnaires survey, 31% of responders who are students and now live at student dormitories can be considered as the potential customers for rental market. Meanwhile, 24% of responders who are all from 69% of working persons are current customers. Although the survey is conducted with a small population, it is still can indicate the large rental demand.

6.3.4 Attraction of community essence for young people

As it is all known, for a proportion of young people who can afford a house but prefer a rental life, both the culture exchange and interaction between neighbours are of great attraction to them.

Beijing is a busy and fast-paced city in which young people have the great pressures both from heavy work and the burden of supporting a family, thus the relax and entertainment in the daily life means much to them. As masses of tenants are dispersedly living in private apartment areas with a high rate of moving in and moving out, the citizens in same building do not belong to same age group or even are not familiar with each other. In terms of the questionnaire survey, 86.0percent of young people in Beijing are looking forward to moving into a rental community since it is a pleasure to communicate with their neighbours, because they are of the same age group and life style is similar and it is easy to find common interests.

The community facilities also attach great importance on young people's daily life. From personal view, the location of gym apparatus and fitness centre should be open to citizens within the sight of young people and close to building they live. However, the responders of questionnaires survey have a reflection that the supporting facilities in their living area are imperfect and inadequate. The facilities, such as swimming

pools and athletic ground are found only in top-quality residential areas. Some of them are dissatisfied that the nearest clinic is too far away from their living area and it is extremely inconvenient if sickness people need emergency treatment.

Based on the opinion of Godbole, the community service is a dispensable component of a rental community, which can promote the responsibilities of tenants and maintain good order of community atmosphere (Godbole, 2010). Except the voluntary service from tenants such as cleaning public area, etc, the landlord should be an important role of service provider. Whereas, the complaints are mainly concentrated on the aspect of bad services from their landlord, as renting from private house owner, it need great effort to contact their landlords in case of electric appliance damage or sewer blockages. In most situations, the tenants prefer choosing to pay for the cost that should be paid by the landlord, rather than contact the landlord then waiting for untimely dealing with.

The location of residential community is obviously a crucial selection criterion for young people in Beijing. Thousands of Chinese people from other cities pour into Beijing to find a work here, among who large proportion of people likes to live closer to their work place. A few people done the questionnaire have mentioned that the rental community's traffic is the one of critical considerations when they make the rental choice. In addition, there are small parts of young people dissatisfied with the long distance of work place, some even rent in suburban districts where it takes them more than two hours from home to work.

6.4 Technological factor

The analysis of technological factors involves not only new technology but also how the technology might impact on the project.

Nowadays in China, rental apartments or communities are new concepts compared to other countries such as Sweden. In order to evaluate the community in practice, it is important to analyse the similar communities in Sweden, thereby, it is essential to identify the possibility of transferring knowledge and experience from Sweden as well as imitating operation approach of similar system in China.

6.4.1 Transfer knowledge from rental apartment in Sweden

Comparing with the rental market in China, the development of rental market in developed countries is more mature. In this essay, the focus is on the rental company in Sweden, which provides rental service for students. By studying the Swedish similar community's operation and management mode, the practicability and obstacles of developing youth community are identified which means the successful experiments of business models can act as technological support for the studied rental community.

The interviewed company is committed to providing functional, well serviced accommodation and creating the condition for comfortable relaxing environment and enjoying the social life. They offer the various types of apartments ranging from single room with shared kitchen to family-type apartments. All the apartments are equipped with shower, WC and kitchen, which are the basic needs for living (some apartment are shared and others are private.) and most of apartments have the furniture. From management aspect, they apply systematic management and all the available apartments are posted on the website (detailed information see chapter 4.1)

Based on the interviews of tenants who live in the apartment that are offered by studied company, the reasons for choosing accommodation of studied company can be categorized.

Firstly, convenience plays an important role because most of apartments are close to the university, colleges, companies and city centre and all of them are easy to access to public transportation.

Secondly, it is more worthy to renting apartment from the studied company since the rent is the equal or even lower compared to private rental apartment. However these apartments provide more services for example they provide outdoor areas and common rooms to ensure a great social life as well as indoor swimming pool, sauna room and gym to all tenants. Moreover, the security issues and social life are also significant factors influencing their preference.

Generally, the rental company, which is studied, functions and operates well and there are a lot of advantages compared to private rental housing. For the youth rental community, the knowledge and experience can be transferred as the basis for design and operation. However, there are several obstacles existing when transfer this knowledge to China. On the one hand the interviewed company is located in Sweden meanwhile the youth rental community is in China, thereby area differences cannot be ignored since the social system and culture cannot be the same. On the other hand the interviewed company is non-profit one which is supported by the government and all profits are used for improvement and maintaining the existing apartment. Meanwhile the youth rental community is committed to profit. Therefore it is not possible to exactly copy the operation and management mode of studied company.

6.4.2 Transfer knowledge from public rental house in China

Nowadays as mentioned before, private rental houses are dominating the rental market and in order to ease the living problem for low-income group, the government devotes to development of public rental house system through construction, purchasing and rebuilding. Moreover, the public rental house is non-profit and currently public rental housing is still in the initial stages of developing and there are still many problems need to be solved.

Currently, there are three common ways for public rental housing construction. Construction by government is the main method meanwhile the rest is acquisition of the existing apartment and cooperation with companies. The government suffers from great pressures for funding by using the former two ways. The third approach is allocating with the developer to build low-rent housing or public rental housing as a condition of transferring land from government to developer. By implementing this approach, it increases the burden of developer; thereby it limits the scale of construction of public rental house (Li, 2010).

Furthermore, compared with commercial housing, the investment for public rental housing is larger, at the same time, for both lower profit and non-profit. Therefore, funding is the key element for developing public rental housing (Li, et.al, 2010).

Compared to public rental housing, the purpose of the youth rental community is also used to rent. However, the target group for rental community are young people instead of low-income groups and the community pursues a profit. In addition, youth rental communities provide a variety of community services. These are two main differences between public rental housing and a youth rental community. Learning from operation of public rental housing, it is worthy to mention the funding issue is also an obstacle

for a rental community. Firstly, the community includes apartments and ancillary facilities such as fitness room, laundry and so on. The investment for such kind of community is large and it takes a long time to return although the profit can be gained not only from the rent but also from renting ancillary facilities. Secondly, although funding is a significant aspect, which could limit the development of public rental housing, it still develops successfully so far because government takes a great effort to support through exemption from related tax and financial allocation. However, youth rental community, which is profit one lacks of policy support, thereby there are more difficulty in operation level unless they are seeking for corporation with government.

6.5 Summary of PEST

Political

Firstly from the political viewpoint, the increasing rate of house price is growing slowly but the price is still keeping on a high level although the government issued a number of related policies to control. Secondly, young people are not taken into consideration in the current public rental housing system and still needs a long time to be covered into the system in future.

However, the policy can change overnight which means the later policy issues could have a negative effect for the community.

Economical

It is true that the housing affordability of young people is inadequate, thus rental community is a relatively perfect choice for them. In addition, the high pressure from Chinese deformity housing economic has inevitably lead to a more and more clarity tendency of rental demand, under which young people are pushed to chose rent as a necessary way of life.

Socioculture

The feasibility of rental community has been proven to be optimistic and has a promising prospect. Many tenants are discontented with the current rental market and they consider it is hard to deal with the conflicts with the landlord. Additionally, it is necessary to establish a centralized rental community to guarantee both for the right of landlord and tenants, due to the former explanations accompanied with the private rental market and also the severe application condition of public rental housing.

In addition, from the questionnaire survey, the rental community is welcomed by a large proportion of people. Additionally, young people are full of energy and trying to avoid the feeling of lonely, so they believe it will add colour to the boring daily life to live with same age group. The common culture and life style will promote the friendship and interaction between the neighbours thus makes the community closer to the ideal home.

Technological

From this perspective, the similar business model in Sweden and operation experience of public rental house in china can be transferred into the rental community. However, it is obvious to identify the obstacles since the concept of rental community is new and do not have exactly same simple to follow and it is impossible to blindly copy the similar models.

6.6 SWOT analysis

SWOT methodology has been applied after the four factors of PEST analysis, it has been positioned from an overall point of view, which can further analyse and deep dig the feasibility of youth rental community. In the SWOT analysis, it is objective and rigorous to present both the positive and negative aspects of establishing youth rental community, which aims at revealing comprehensive and completed assessment of feasibility study. The figure 3 below presents the most important aspects of each factor.

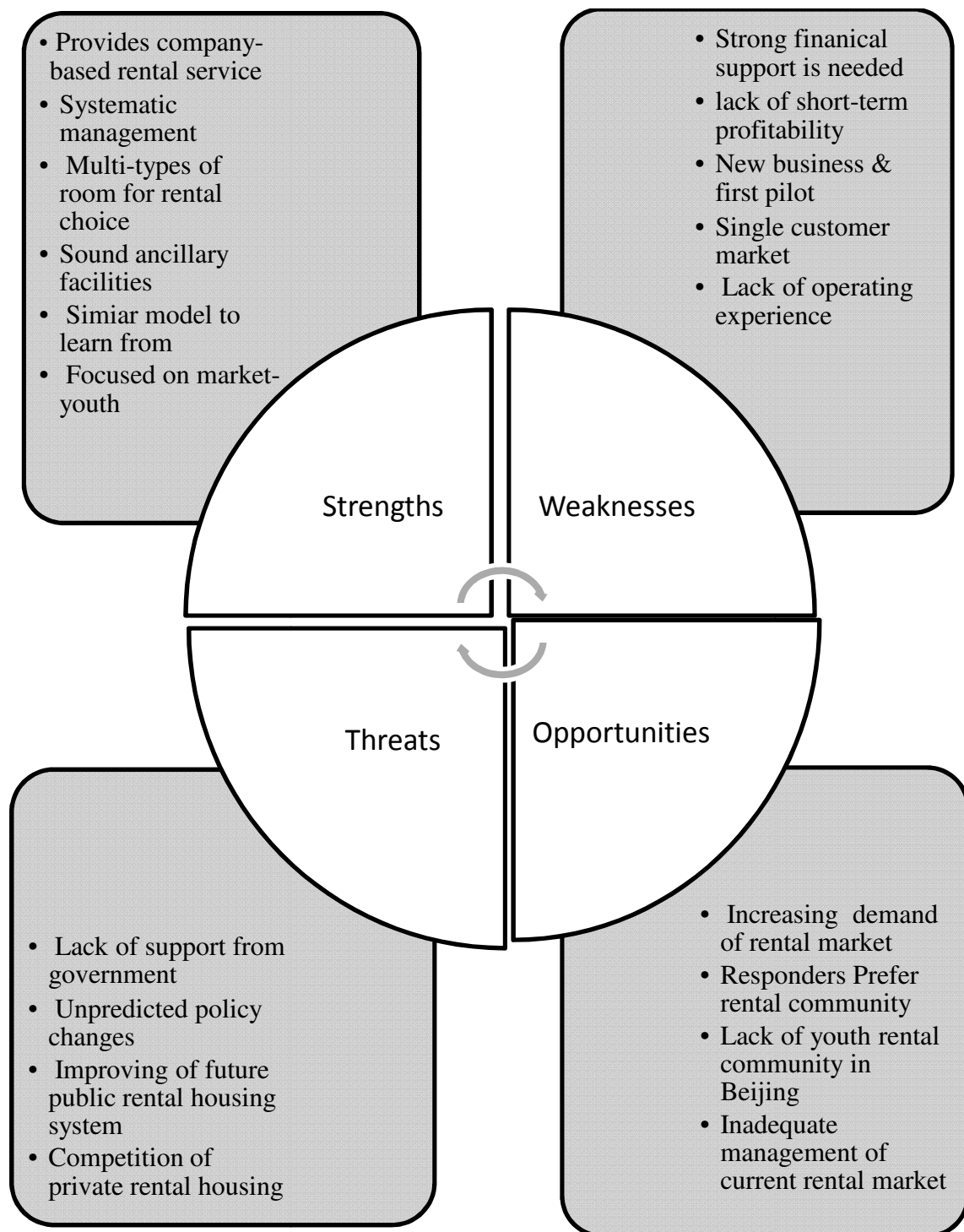


Figure 3: The result of SWOT

6.6.1 Strengths

As a youth rental community, the feature is to provide systematic management rental service. This community is a new concept originating from the interviewed Swedish company, which means that it is blank market in China without strong competitors. Moreover, youth rental community offers various types of rooms with sound ancillary facilities to meet different demand of people. Meanwhile private rental house only provides simple rental service, which could not be competitive with it. Since youth is the main target group, the design and ancillary facilities are based on the life style of young people, which make the community more attractive to them.

6.6.2 Weaknesses

In order to establish such kind of rental community, it is important to have strong financial support because a large amount of money should be put into this project for construction and purchasing facilities. In the operation process, it is different from other real estate investments, which can recover funds as soon as they are sold out. The rental community payback funds through the rent and fee of offering facilities, it takes longer time to recovery which means it lacks of short-term profitability. Therefore, a strong financial support is critical for youth rental community. Another weakness is that it is a new business and insufficiency of operation experience. Although it is possible to transfer operation knowledge from interviewed company to youth rental community, it is not exactly the same situation and the rental market in China and Sweden is different. Therefore the lack of experience can be a barrier for the success of this community. In addition, the community now only focus on young people, which limits the source of customers.

6.6.3 Opportunities

With rapidly growing housing price, increasing numbers of people change their attitudes to rent a house instead of purchasing one, it is an opportunity for youth rental community with growing demand. In addition, current rental market is dominated by private rental houses which are lack of management and lot of potential problems need to be solved meanwhile the rental community have great advantages in this aspect which provides big chance to survival and success. Moreover, according to the questionnaire survey, 98% of responders believe it is a good idea to build this community and 48.3% prefer to move in. Both of them indicate the large demand of market which can be considered as big opportunity.

6.6.4 Threats

In order to manage housing market, government issued a series of policy to control house price and regulate both purchase and rental markets. However, it is known policy is temporary which could change overnight therefore unpredicted policy change could have negative effect for the project. In addition current public rental housing system is focus on low-income family, which means young people do not fall into this group, however, it is predicted that the improving of future public rental housing system will engage them and in future it can be a strong competitor. Moreover, according to the questionnaires, 4.4percentages of youth do not support the idea to establish youth rental community although private rental housing only provide simple service. From the strict perspective, this minority group should be neglected. It stills have competitive to youth rental community since private houses are easily available and more free to move in and out.

7 Conclusion

It is never an exaggerated and unrealistic summary remark that the youth rental community in Beijing is feasible and largely possible to be built.

From the policies aspects, they reduce the speed of housing price increasing but the price is still at high level. In addition, the high pressure from Chinese deformity housing economy has inevitably leads to a more and more clarity tendency of rental demand, under which young people are pushed to choose rent as a necessary way of life. Insufficient housing affordability offers the opportunities of establishing youth rental community. The current rental market cannot provides a stable and safety environment for tenants meanwhile the youth rental community can compensate for the weakness and the experience that transferred from similar model can increase the possibility of successful operation.

However, it cannot be concluded that the community is totally feasible only based on the large potential market. From a stricter and more prudent point of view, the situation that should be taken into consideration is that China has a highly government-centralized system; the change of new real estate policy may become an impact and threaten to competitiveness of youth rental community. Moreover, it is a priority and biggest challenge to find the financial funding and government support for youth rental community as the investment of rental community needs a long payback period, which may be an obstacle of operation stage and can has negative influence on feasibility study.

Therefore, from the comprehensive aspects, the feasibility of youth rental community needs further verification research.

8 Appendix

8.1 Appendix I - Survey of youth rental community

1. Your age

(1) 20-23 (2) 24-27 (3) 28-31 (4) 32-35

2. You are:

(1) Student (2) Working people

3. Your income monthly:

(1) 0 (2) 0-2000 (3) 2000-3000 (4) 3000-4000 (5) >4000

4. Accommodation type

(1) Student dorm

(2) Rent apartment

(3) Dorm providing by working company

(4) Others

5. How do you think the current accommodation?

(1) Very Satisfied

(2) Generally OK but need improvement in some aspects

(3) Unsatisfied

6. How do you think if there appears a youth residential rental community?

(1) Welcome and look forward to

(2) Not necessary

(3) Do not care

7. What facilities do you think are necessary for youth residential rental community?

(1) Swimming pool

(2) Gym

(3) 24-hour washing machine service

8. Beside the facilities mention in question what else's do you think are necessary

9. Will you consider moving to the youth rental community?

(1) No

(2) Depending on the situation

(3) Yes, very sure

10. The reason for answer of question 9

8.2 Appendix II-Interview questions

1. Which kinds of services do you offer to tenants?
2. How do you manage the communities, such as people move in and move out;
3. How do you manage the security problems?
4. Tell us some measures about the maintenance of facilities
5. Self-evaluation of your rental community; which aspects need to be improved?
6. Comparing to private rental houses, what are your advantages? The relationship between public rental community and the private rental housing, it is competition or promoting?
7. The application standards or the target group of the community
8. What is the average yearly vacancy rate of the rooms?
9. How do you cooperate with universities and other companies for example cleaning company
10. How often do you renew the furniture?
11. Are there any activities that hold to promote the communication among people living in the community?

8.3 Appendix III-Income level of young people from 2007-2010

	2007	2008	2009
Junior college	1980	1699	1755
College	2615	2258	2228
Master	4000	3480	3331
PHD	6250	5791	5981
Average income	3711.25	3307	3323.75

Table 6: Income level (source from Mycos survey database)

8.4 Appendix IV- House price of Beijing

Year 2007	1	2	3	4	5	6	7	8	9	10	11	12
Beijing	9232	9312	10078	10338	10225	11139	11380	12727	13709	11080	12830	13600
Chaoyang	11828	11890	12921	12978	13400	14367	13440	16118	16155	17439	17107	/
Haidian	10871	11453	11944	12189	14135	12226	13765	14841	14619	12579	16168	/
Fengtai	7681	7763	8778	8921	9638	10169	10148	9683	12473	12056	12909	/
Shijingshan	8966	8995	9141	9224	9829	10309	12003	12028	14496	14996	14856	/
Tongzhou	5475	5402	5805	7484	8091	7583	7515	8545	8951	7961	8926	/
Fangshan	3973	4554	4311	4383	4627	5104	5177	5835	5730	6061	6332	/
Daxing	6151	6201	6295	6392	6440	6527	6520	7232	7542	7358	8309	/
Changping	7019	7597	7993	7546	8530	9195	10006	9348	10597	4122	6019	/

Year 2008	1	2	3	4	5	6	7	8	9	10	11	12
Beijing	11925	13283	13506	13460	13118	12599	13600	12450	8548	9244	9244	9184
Chaoyang	15716	18098	18437	18131	17065	17016	16700	12090	8147	12965	12965	10025
Haidian	16398	17597	15184	14197	18107	18200	18800	22930	15915	19466	19466	14909
Fengtai	7777	8597	11601	11434	14419	14459	12500	13320	6695	6060	6060	7843
Shijingshan	11724	14333	13808	11748	12537	12216	11800	12540	13161	7046	7046	7569
Tongzhou	8766	8334	9196	8188	8992	9102	9500	9160	6917	7221	7221	7880
Fangshan	6559	7203	6626	6842	6855	6485	6700	6790	6688	7018	7018	4995
Daxing	8409	9195	8827	7647	9050	4281	7000	7670	8150	8048	8048	8090
Changping	9504	9254	7535	8569	8379	8180	8300	5100	5024	6570	6570	6007

Year 2009	1	2	3	4	5	6	7	8	9	10	11	12
Beijing	10787	11417	11851	12631	13290	13216	14403	14343	14288	15927	17254	18306
Chaoyang	14041	14572	12851	14391	16697	17612	19855	20759	22249	24017	24610	25928
Haidian	15079	14634	15406	16008	20249	17910	20745	19002	22395	23901	24513	24394
Fengtai	11080	11731	13706	13998	13453	12185	12929	14396	13728	16390	16716	18317
Shijingshan	12097	10859	12356	13257	12326	12585	13013	11773	9926	14840	13397	14313
Tongzhou	7527	7527	8826	7597	7993	8710	8737	9785	10833	11303	10568	12224
Fangshan	2788	6048	6193	6372	6751	6425	6949	6931	7380	7890	8053	8820
Daxing	8360	8332	7772	8227	8407	9304	11413	11796	12188	13513	12454	12866
Changping	7689	7428	7866	8550	8995	9306	11718	11755	12245	11703	12606	15038

Year 2010	1	2	3	4	5
Beijing	18856	17196	21345	22582	18342
Chaoyang	23931	24690	31017	34482	28249
Haidian	24140	22333	25056	32550	24237
Fengtai	18619	18231	22296	20567	20172
Shijingshan	16762	13434	18520	16876	8052
Tongzhou	13672	15771	14799	19074	19432
Fangshan	9315	10826	10721	12260	11985
Daxing	16316	14373	18394	19639	18033
Changping	14122	13014	14319	17023	17948

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