RIGA'S CLASS A AND B+ OFFICE SPACE:
AN ANALYSIS OF THE MAIN FACTORS THAT DETERMINE CONSUMER CHOICE

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Abstract

The authors' primary interest in the topic is to provide input into the Riga up-market office analysis, focusing on market segmentation and assessing the importance of different factors that determine decision-maker choice. This analysis is based on collecting and analyzing a sample of the existing and potential class A and B+ tenant preferences and producing a psychographic factor profile for these market segments. The companies are divided into three distinct clusters that represent the Riga company profile. The factors assessed include technical and perceptional requirements for office buildings as well as preferred location. The data is gathered by Internet survey and compared to expert opinions in the field. The conclusions are drawn based on survey statistics and analysis of consumer behavior as well as traditional location theories.

1. Introduction

1.1. General Background

Along with the rapid economic growth of the country, the real estate market has been booming during the last decade in Latvia. During 2005, total new building projects in Riga increased by almost 100% compared to the previous year: 156 to 306 respectively (Ober Haus, 05.10.2005, 1). Currently, the most active investment is apartment block buildings, which is encouraged by affordable mortgage loans and increasing willingness and ability in society for better living conditions. On the other hand, forward-looking investors draw attention to the less used commercial space. It is exactly the lack of knowledge about this segment that is the driving force in analyzing and probing as yet unexplored investment opportunities in the promising Riga real estate market. As evidence of this, the examples of the recently built "Saules Akmens"(Sun Stone) – Hansabanka Central office building and the upcoming "Rietumu Capital Centre" could be mentioned as trials to open and shed some light into the unknown side of the market.

1.2. Problem Description

With an increasing number of companies in Riga, the need for comfortable and easily accessible office premises emerges. The old stock of office premises carried forward from the Soviet era is both technically and morally out of date. Thus the demand for new modern and European standard based office premises has arisen. The supply of higher class (A) office space in relation to medium (B) class is estimated at 1:10 at the beginning of 2006 (Villerusa, 15 Dec. 2005). Only in 2005 and 2006 can some new construction activity be observed in the market. Total class A office space in Riga at the beginning of 2006 was only 31 600 sq. m, while class B stood at 240 000 sq. m. (Villerusa, 15 Dec. 2005) This creates confusion among foreign investors, who are used to international benchmarks and look for class A office demand trends in Latvia as well. The reasons for the insufficient and slow development of modern high class offices are found in the fact that historically there has been comparatively little demand for them (Snegirjov, 24 Feb. 2006). The authors of this paper found that local companies have been price-oriented and the quality improvements offered for class A offices have not outweighed the high rent levels.

Nevertheless, the stationary market started to move after several economy-wide thrusts, including entry to the European Union. The market became increasingly interesting for developers, investors, and potential tenants. The vacancy rates for A class offices decreased from 19% in January, 2004 to 3% in January, 2006 (Danilevics, 16 Nov. 2005) However, a

lingering factor in the progress of an open, fresh market is lack of experience and knowledge about the market itself. There is a need to understand current and future demand, market composition, and market expectations.

Hence the authors' attention was drawn to this sector of the real estate market in finding out the main factors that would influence its future development. The research question is as follows: **What are the main factors that determine company choice of high-class offices in Riga?**

This question will be supplemented by two subquestions that will provide a more profound insight into the meaning of the main research question as well as containing some practical advice for investors with an interest in this particular real estate segment:

1) What are the future determinants of choice for A and B+ class offices?

2) Which locations for A and B+ class office building in Riga are most in demand?

1.3. Scope of the Work

This paper will examine four perspectives of parties involved in office space development – the local developer (who creates the idea and realizes it in real estate), the constructor (who builds it), the investor (who buys it) and the final consumer (who rents it). The first three parties intrinsically work for the latter one – the renter of the office – the final user of office space. Therefore, the final consumer will be the central focus of the research.

It is important to understand what is meant by an up-market office. An up-market office is either an A or upper B category office building (out of A, B, C and D categories). But there is no agreement on a common classification system of local up-market office buildings in Riga. For example, the web pages of local real estate agencies provide different information on the number of class A offices in Riga (ranging from 1 to 5).

Thrall (2002, 138) states that class A offices: "generally meet international standards of design, construction, and facilities management and have a prime location." He specifies that in a competitive office market they should have "modern, user-friendly, aesthetically appealing design and well executed construction with international quality building materials and building systems. Class A buildings are also expected to have attentive property management, security and amenities such as parking, high-speed elevators, and dining, and in some markets even exercise facilities." For class B, Thrall elaborates that, generally, if a property lacks one or two features described above, it is regarded as class B office.

The Riga branch of the real estate company "Colliers International" has published 17 *(See Appendix 1)* technical and partly perceptional requirements of which at least 14 have to be fulfilled in order to be classified as an A class office. At least 10 requirements have to be

fulfilled for the B class, and 6 for the C class. Unfortunately, some of the requirements are not self-explanatory, for example - "good location in the region of existing or future business activity." The attractiveness of the location is an ambiguous term. To gain a broader understanding of office classification rules, the authors of this paper tried to find out the opinions of Europe's largest real estate companies on the matter.

The definitions for office space in Europe are ambiguous as well. As the director of one of the leading real estate companies in Europe "CB Richard Ellis" replied: "One of the main problems is that there is no single definition of what constitutes Grade A or Grade B space from country to country (or indeed from city to city). The requirements of occupiers and of government legislation cause the definition of Grade A to be very different" (Haddock, 10 Jan. 2006). Therefore, the four leading real estate companies in Europe – "DTZ", "Jones Lang LaSalle", "CB Richard Ellis", and "Cushman &Wakefield", have agreed that they will refer to an A class office as an office that is <u>above the average level</u> in the particular country (city). *(See Appendix 2)*

The previous information implies that it is virtually an impossible task to precisely define class A and B offices in the small Riga market. Therefore, the authors of this work will adopt the approach based on common practice in Europe. Up-market offices will be defined as above average, modern, technically developed, and with good infrastructure, as well as providing parking, professional building management, and security. Yet, class A buildings are located only in prime locations, which is not an obligatory requirement for class B+ offices.

The scope of this work is the upper-level office market in Riga, including A and B+ category buildings and their respective existing or potential tenants. As lower class B office tenants are potential A and B+ tenants, they are included in the investigation sample.

2. Structure of the Research

The purpose of this paper is to perform office market analysis by conducting market segmentation of up-market office clientele and evaluating the importance levels of different perceptional and technical requirements as well as location preferences for existing or potential up-market office tenants. The structure of the research is shown in the following diagram:

2.1. Structure Diagram

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┌──────────────────────────────────────────────────┐
│  ➢  REVIEW OF THEORY                               │
└──────────────────────────────────────────────────┘
        ↓                          ↓
┌──────────────────────────┐  ┌──────────────────────────┐
│ Theory of Reasoned        │  │ Traditional Locational    │
│ Action - Consumer Behavior│  │ Theory                    │
└──────────────────────────┘  └──────────────────────────┘
        ↓                          ↓
┌──────────────────────────────────────────────────┐
│  ➢  PRELIMINARY RESEARCH                           │
│   •  8 expert interviews                           │
│   •  Market overview examination, Internet sources │
└──────────────────────────────────────────────────┘
        ↓
┌──────────────────────────────────────────────────┐
│  ➢  METHOD                                         │
│   •  Developing the survey                         │
│   •  Testing phase                                 │
│   •  Conducting the survey                         │
│   •  Collecting results                            │
└──────────────────────────────────────────────────┘
        ↓
┌──────────────────────────────────────────────────┐
│  ➢  DESCRIPTION OF GENERAL RESULTS                 │
│   •  Descriptive Statistics                        │
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│  ➢  ANALYSIS                                       │
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        ↓  → ┌──────────────────────────────────────┐
            │ Market Segmentation                   │
            └──────────────────────────────────────┘
            → ┌──────────────────────────────────────┐
            │ Constructing Tenant Profiles          │
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        ↓                          ↓
┌──────────────────────────┐  ┌──────────────────────────┐
│ Requirements for Office   │  │ Choice of Location        │
│ Building                  │  │                           │
└──────────────────────────┘  └──────────────────────────┘
            → ┌──────────────────────────────────────┐
            │ Analysis of Consumer Choice           │
            └──────────────────────────────────────┘
        ↓                          ↓
┌──────────────────────────┐  ┌──────────────────────────┐
│ Psychographic Factor      │  │ Agglomeration Presence    │
│ Presence                  │  │                           │
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┌──────────────────────────────────────────────────┐
│  ➢  CONCLUSIONS                                    │
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Graph 1 – Structure Diagram

2.2. Limitations

The research will be limited by the geographical borders of Riga city, and the period – observations recorded during the period February - March 2006. The analysis will concern only the head offices of companies – the office where the administration of the company is located. Only offices that are for rent will be analyzed.

This research will not include several elements that to some extent could influence market movements and final interpretations of results. The office space definition here does not include non-speculative office space such as home premises (intellectual employees tend to work at home), private office buildings that are not for rent, as well as office space that quite often is attached to retail space and thus is practically immeasurable. All these cases are hard to estimate correctly; therefore, they are out of the scope of this research.

3. Review of Literature

Publicly available information on the office market was available in real estate agency market reviews and press. A publication by British Council for Offices (BCO, 2005) and "Dienas Bizness" (2005) offered suggestions for requirements possible for use in later analysis.

Most of the academic readings revealed only a general picture of the characteristics of the office market sector. The theories were based on common practices in other more developed countries. However, several authors, such as Neil Carn, Grant Ian Thrall, Bill Mundy, Jakobsen and Onsager, suggested useful approaches that were partially incorporated into the theoretical and analytical frameworks of this paper.

4. Theoretical Framework

4.1. Theory of Reasoned Action

One of the most popular theories for explaining how consumers act in accordance to their attitudes is the Extended Fishbein model or the theory of reasoned action (qtd in. Gibler, 2003). This theory says that the best prediction for consumer behaviour is their intention as an attitude towards specific objects of interest. In this paper, the object of interest is renting office space. The consumer in this case is a company that is willing to rent an office. As suggested in the Fishbein Theory, the optimal way to analyse company choice of office is explained by their intentions. Therefore, the method in this paper will adopt the approach of discovering these company intentions when choosing their office. The reason behind this

method lies in the fact that there is too small a supply of up-market offices available in Riga to make a purely quantitative analysis, for instance, the hedonic approach (Thrall, 2002) would be improper for the Riga office market.

The Fishbein model will be used as a general theory in this paper, while the two theories of market segmentation and psychographic modelling will be used to analyse and explore company intentions and behaviour when selecting office space.

4.1.1. Market Segmentation

The usual way to approach feebly explored markets is to start from the very beginning – finding general characteristics and then track them down to more detailed research. The proposed theory for this approach is present in not only real estate literature, but also other types of business sector that analyse demand for their products by applying marketing techniques. Carn *et al* (67, 1988) and Howarth and Malizia (1998) start exploring the real estate market by disaggregating and segmenting it. The authors of this paper have adopted this typical framework as well. More specifically, the first technique to be used is market segmentation – the clustering of the clientele of up-market offices. This approach will provide our analysis with distinctive groups of tenants and allow for further investigation of the factors that are reflected by their respective needs and decision-making process.

4.1.2. Psychographic Profile

Of particular interest in the research is decision-maker psychographic or attitude aspect. This, in essence, means that analysts are interested in the opinions and preferences of the market segments to infer the main determinants of demand for renting office space. This is probably the most valuable part of the research, as it will provide key guidance in assessing the unexplored "mood" of companies with regard to expansion of modern office supply. Gibler and Nelson (2003) suggest evaluating real estate not only in the traditional way – by physical construction and financial factors – but by looking at the consumer perception of "space, atmosphere and linkages." This consumer behaviour theory puts special emphasis on consumer decision-making as a process, not as an outcome. It takes into account different situational elements of consumer behaviour (Gibler and Nelson, 2003). This paper will analyse to what extent perceptional factors for choosing an office dominate the technical and financial factors, or *vice-versa*. Furthermore, it will compare the importance levels assigned to these psychological considerations, for example, image and prestige, atmosphere in the office, comfort level, and the attitude towards extra facilities available. That will provide more information to office developers and market analysts on consumer preferences, and thus optimization of the requirements bundled in the office building. The authors of this paper

perform an integrated analysis on comparison and evaluation of the composition of technical and financial requirements that are accompanied by behavioural attitudes in office choice for companies.

4.2. Locational Theories

Several locational theories explain different perspectives on company head office location in metropolitan centres – traditional neo-classical locational theory, cluster/milieu theory, the urbanisations theory, and node-approach (Jakobsen, 2003, 3). The latter three theories interpret the agglomeration phenomenon by considering large, developed, and international economies. These approaches are therefore inappropriate for analysing the small and still-growing Riga city. Traditional locational theory, however, considers aspects that are applicable to the Riga office market as well. Hence, this theory will be used for analysing the presence of agglomeration in the Riga office market.

4.2.1. Traditional Locational Theory (TLT)

According to TLT (Jakobsen, 2003, 3-4), among the conditions that create the preconditions for agglomeration are:

- Presence of specialised services (financial services, legal consultancy, management consultancy and other) in the central area.
- Advanced infrastructure and communications system.
- Prestige related to location.
- Face-to-face contact with other firms and institutions.

These factors will be analysed according to the importance the companies will assign to each of them to determine the actual level of presence of agglomeration in Riga. Is such a concentration present here at all?

The importance level of proximity to business partners and clients will be evaluated by survey results and assessed accordingly. The results will be interpreted by the likelihood of concentration of head offices in particular regions in Riga.

Company preferences for specific streets and regions in Riga will indicate the popularity and prestige of the region they value as necessary for their head office. The location preference will be evaluated in relation to other preferences the respective cluster possesses, and the overall customer profile will be constructed.

4.3. Choice of Relevant Factors

The 30 main requirements that are tested for importance in this research are proposed by theory and supplemented by "Colliers" 17 requirements and European Data Definitions. The components of decision-making for real estate evaluation as listed by Thrall (2002, 11) represent the five most important elements – location, timing, product, price, and contract terms. The second parameter, timing, was added to the survey factor list as well as price. Contract terms are excluded from further consideration due to their very case-specific nature and, thus, limited general application.

Jakobsen and Onsager (2003, 4) emphasize the importance of proximity to clients and business partners and establishing informal contacts. Experts from real estate agencies also suggested such perceptional factors as the attractiveness of surroundings and visibility, which was also suggested by Carn *et al* (1988, 237), or exposure of the office. The suggested factors were consulted with experts from different parties including an ex-developer, a constructor, and a financial economist. If the majority of the interviewees agreed on the significance of a factor, it was included in the final list. The different perspectives of experts were appreciated, and the final list of questions to be asked to office tenants was generated.

5. Method

In order to answer the stated research question, as well as the sub-questions, the authors of this paper conducted extensive fieldwork, applying both qualitative and quantitative approaches.

As suggested by the literature (Malhotra, 1999, 145-148), qualitative research is used to get an understanding of the current situation and develop an approach for further actions. This is what the first part of the research, the preliminary research, is concerned with. The following part describes the sampling techniques for experts and companies.

Then the questionnaire, based on literature and additional information from the preliminary study, was developed. This part discusses the targeted audience, format and structure of the questionnaire, as well as comments on the testing phase.

The final part of this section covers some basic analytical techniques used later in analysis.

5.1. Preliminary Research

During the preliminary research stage, the authors tried to identify those important factors that are either not present or overlooked in available literature, but have a high importance -

mainly in a regional context. Additionally, preliminary research was conducted to narrow down the focus of the survey.

5.1.1. Expert Interviews

Semi-structured interviews were conducted with real estate agents and other related experts. The experts were asked about their opinion on current and anticipated development of the real estate office market, most attractive regions for office projects and for customer preferences *(for list of Interviewees and Questions see Appendix 3).*

5.1.2. Choice of Industries

In order to select the industry to be included in the sample, an assessment was made of what industries are the most-likely tenants of class A-B office. To compile this information, the web-sites of office centres (Valdemara Centre, c.2005), as well as 1188 Business Catalogue (2004) were searched and statistics constructed.

The results show that the most common renters are consultancy and PR agencies, banks, financial advisors, pharmaceutical companies, retail/wholesale and service companies, architectural agencies, insurance and brokerage agencies. In addition to these, traditional renters such as law agencies, state agencies, and logistics companies were included in the sample.

5.2. Sampling

5.2.1. Expert Interview Sampling

The choice of real estate agents to be analysed is based on availability and quality of published reports and articles. This is an indicator of how well a company is informed about current trends and changes in the market. Additionally, the quality of the reports may signal the quality and popularity of the agency. The authors attempted to contact some real estate consultants, developers, constructors and independent experts to get a broader view on the issue.

5.2.2. Sampling Population

The population is defined as current and potential renters of high-class offices in Riga, that is, companies renting available space in an office centre or other class A or B office. It is necessary to filter out companies that feel comfortable with class C offices. Such offices offer poor conditions that result in low rentals. These offices provide no image or comfort benefits that are present in high-class office buildings. Therefore, companies that willingly, not because of necessity, are renting this space should be excluded from the sample *(for list of selection criteria see section 5.2.5. Criteria for Company-Respondent Selection).*

5.2.3. Sampling Elements

The survey is aimed at companies that are either renting or might be willing to rent high-class office space in Riga. However, while the research units are companies, the elements of the sample (anticipated respondents) are male or female members of the company, who are familiar with company preferences as to choice of office, who are aware of what factors might have an influence on company operations, and who take an active role in the search for a new office. In bigger companies it is expected that a special position is associated with these responsibilities. In smaller companies, however, directors and owners of the company might be dealing with this kind of question. Therefore, during contact with a company it is necessary to indicate the required responsibilities of the respondent of the survey.

5.2.4. Sampling Frame

For selecting a company, the authors chose the non-probability, judgmental sampling method without replacement. The choice of technique is based on the database of companies that could be assessed. The authors of this paper use 1188 business catalogue (2004) as it is the largest online database of companies in Latvia, it provides a user-friendly company search engine and division into industries, and it usefully divides company information provided into typical and promoted profiles.

5.2.5. Criteria for Company-Respondent Selection

To avoid inclusion of the class C segment, companies during the selection phase have to be discriminated according to the following factors.

First, when acquiring the address of firm's office, we checked whether or not the company is located in a class A or B office building. Such membership ensures that the company fits into the sample.

Second, if the company is not located in an office building, then it has to be located in Riga's CBD, that is, Riga Centre. As mentioned, this region has the most developed infrastructure, attracts most of the city's business activity, and therefore is viewed as the most prestigious place for an office. These considerations, in general, raise the level of prices in CBD, creating little motivation for class C office offers. There are, of course, class C offices in the Centre as well; however, it is expected that their relative representation is low. Therefore, if a company is located in Riga's CBD, it is appropriate for the sample.

The last criterion relates to companies whose offices are located outside the city centre. Such companies are included in the sample only if they have a professional web site developed by a web design company or other expert IT service providers, as opposed to a self-made home-page. The motivation behind using this criterion is that a professional web

site is evidence that the company is concerned about its image and is willing to invest money to improve it. Therefore, such a company is viewed as a potential tenant of class A or B+ office.

5.3. Questionnaire

The problem associated with targeted respondents is that they are very constrained as to time and might refuse to help, if the task is too complicated and time-consuming. Therefore, the set of questions presented to them must be short, precise, time-efficient. Malhotra's discussion of survey methods (1999, 177-195) described Internet/Web surveys as the most flexible and diversifiable, meaning that the survey can include a variety of questions and adjustments to meet the respondent's implicit requirements, without physical presence. Additionally, it does not create extra pressure when questions on sensitive issues are asked and helps to reinforce perceived anonymity. Based on these features of the Internet questionnaire, it was decided to apply it in the survey. *(See Appendix 4 for detailed structure and full versions of questionnaire in English and Latvian.)*

For the programming of survey, a subscription for Question Pro Online Research engine (QuestionPro, 2006) was obtained.

5.4. Analysis Techniques

The results of questionnaire are analyzed using SPSS statistical software. The excel spreadsheet with answers is converted into SPSS input data, displaying the information on current and optimal rent price and office size, numbers of employees, industry type, importance of requirements, and attitudes towards regions. The measures of importance and attitudes, recorded in scales of 6 and 7 in the questionnaire are transferred into a scale of –3 to 3, reflecting positive and negative opinions about the subject, which is more appropriate for later analysis.

The two basic analyses used are – factor and cluster analysis. Some of the variables, such as importance of location, rent, and parking, are initially not included in the factor analysis. This is done in order to measure individual performance of these variables.

6. Conducting the Survey

This part of the research relates to conducting the survey and working with the sample. There are several issues that need to be taken into account, such as identifying the sample, selecting appropriate companies, and contacting them.

6.1. Testing the Questionnaire

Before distributing the questionnaire to the target audience, a test was conducted. Four respondents were asked to fill in the questionnaire and later were contacted to collect feedback on the content, formulation of questions, user-friendliness and speed of completion. Also two experts in the field of real estate evaluation and one expert in questionnaire development were asked to comment on the same issues.

6.2. Contacting the Respondent

Companies that passed the selection criteria presented in the previous section were contacted. If a company had a valid e-mail address in the comprehensive online 1188 Business Catalogue (2004), an e-mail was sent asking for help, offering to forward email to the corresponding person, and providing links to the survey. Where only a telephone number was available in the online catalogue, the company was first contacted by the phone.

7. Results of Fieldwork

7.1. Expert Interviews

The purpose of the expert interviews was to identify the key points, or benchmarks for the study, as well as to learn their opinion on the different issues and future trends of the office market in Riga. These opinions were later compared to the survey results from office renters.

The authors of this paper carried out 8 expert interviews with almost all involved sides of the office market. In addition, information was also gathered from several European countries via e-mail.

The interviewees include real estate agency office brokers ("Ober Haus", "Resolution", "Arco Real", and "Nira Fonds"), a constructor ("Gavars"), a former developer ("Kristensen Baltics"), and an independent expert, the financial economist ("RB Management").

The research question of this paper aims to examine the demand factors, future price determinants and most profitable locations for up-market offices in Riga. These particular questions were asked to experts in the field.

7.1.1. Demand Factors

The interviews were aimed at identifying specific factors that drive a renter to choose an up-market office rather than a lower B or C category. The point most often delivered was that clients differ widely in their preferences. Some need an office in the centre because of prestige, others need large space and accessibility but can be out of centre, while others need a small office with high security. Altogether, several factors were identified – location,

available space, rent price, condition of the building, accessibility, parking, floor choice, and building infrastructure. In particular, the serious lack of parking in the centre and Old Riga was mentioned. Businesses that require offices in these prestigious locations are very concerned with the parking shortage. Several big companies have shifted their headquarters out of the centre, thus solving two problems at once – parking and high rent (e. g Unibanka). Moreover, due to lack of space, as well as several restrictions from Cultural Heritage funds such as UNESCO, new projects are not being developed in the very centre of the city. Therefore, the Old Riga is not a promising office area.

In Riga, the situation has historically developed that companies prefer B+ office stock more than class A due to the price difference. Four out of five real estate brokers said that the financial aspect has always been top priority for companies in Latvia; therefore, they are willing to rent offices in a less preferable location, but paying considerably less for a good quality office. For the five years to 2004, there was only one class A building in Riga – the Valdemara Centre. Only at the end of 2004 was class A office stock increased by the Saules Akmens building in Kipsala, and several others later on.

7.1.2. The Profitable Locations

According to the Riga City Development Plan, development will take place in several parts of Riga that have not yet been paid attention to. These include Kipsala, Lucavsala, a large part of Pardaugava and other regions close to the busy centre – Krasta, Duntes, Skanstes, Mukusalas Streets. These areas have several new projects on them. Therefore, they might become small business centres in the future.

To describe profitable and successful future office areas, the main distinguishing arguments included proximity of other business entities, warehouses, or logistics terminals. However, the most important factor for consideration was the current perception of the region. If the place was famous for its retail centres and malls, it will not become a popular office area. The example here was Krasta Street, which is well known for shopping centres.

7.1.3. Future Rent Determinants

This part of the questions posed for interviewees was also quite interesting, as opinions differed and, moreover, in a predictable pattern. Six out of eight experts expected that rent levels would increase with time, while others thought not. The authors noticed a pattern that real estate agents would definitely predict more positive outcomes and price increases, while parties not directly involved (constructors, independent analysts) would characterize rent prices as stable and definitely not increasing.

Upward pressure on price levels can occur by inflation (building costs expected to increase considerably – for 2006 the prediction is 25%) (Gavars, 13 Feb.), increasing demand from international companies, and long-term economic growth of the country. However, looking at the office stock growth rate and comparing it to employment and direct foreign investment in Latvia, the demand for top class offices is going to be exceeded by supply. This will lead to stabilization of prices in the short to medium term.

Overall, the observations were quite insightful so far and the authors of this paper went on to try and test them from the tenant – decision maker – point of view via the means of survey.

7.2. Questionnaire Results

7.2.1. Survey Statistics

The survey data was gathered in two ways as described in the previous sections – directly calling to the company, and indirectly by email. The statistics on the success of the data collection are shown below in *Table 1*.

A note on the invalid responses – these include two responses that were submitted without answering any question and four responses that were received during the testing phase of the survey and, thus, became hard to interpret correctly after changes in scale units in the improved version of the survey.

Contacts Attempted	E-mails only:	102
	Phone calls plus emails:	194
	Total	**296**
Responses received	Of which *in Latvian*	99
	Of which *in English*	6
	Total	**105**
	Invalid Responses	6
	Valid Responses	**99**
Response rate	99/296	**33%**

Table 1 – Survey Statistics
Source: Created by authors

7.2.2. Descriptive Statistics

The general descriptive analysis of factors included in Questions 6 and 7 shows the most important factors that are considered by companies in making the decision about an office. The converted scale represents positive and negative importance for each of the determinants and attitude for locations.

As it was suggested during expert interviews, the most important factors are the LOCATION, PARKING and RENT with average means (and standard deviations) of 2.08 (1.09), 1.90 (1.36) and 1.91 (1.07) out of a maximum 3, respectively. From the technical side, the most important requirements are availability of INTERNET, TELEPHONE and effective LIGHTING in the building with means (and standard deviations) of 2.70 (0.87), 2.67 (1.01) and 1.89 (1.00) out of maximum 3, correspondingly. These are closely followed by CLIMATE control and SECURITY system in the building. These results do not deviate from the authors' expectations, as the high importance of a developed infrastructure in the building reflects today's businesses dependencies in order to maintain successful operations. The least important factors are availability of such extras as sauna with a mean of –1.81 (1.31) and gym for employees with a mean of –1.43 (1.42), followed by suspended ceilings with a mean of –0.67 (1.74) with a minimum of –3.

The general tendencies in the sample company preferences for office locations in Riga show that the most popular regions are QUIET CENTRE, CITY CENTRE and KIPSALA with means of 1.01 (1.84), 0.79 (1.80) and 0.21 (1.72) out of maximum 3. The latter are closely followed by OLD RIGA and MUKUSALA. The least attractive regions are

Kengarags and Plavnieki, which are the furthest away from the centre. These results are in accordance with expert opinion as well and support the expert opinion that Old Riga is not the most attractive location for a high-class office.

The industries represented in the sample of 99 valid responses chosen were dominated by RETAIL (15.6%) and IT companies (9.4%), followed by logistics (8.3%), marketing (8.3%) and construction (8.3%) companies. However, the spectrum of companies in the sample is quite large, representing 19 industries in total.

7.2.3. Restriction of the Data

The basic descriptive approach provides large standard deviations and errors that do not speak in favour of data reliability. These data cannot be used in regression to provide interpretable and statistically significant results. The reason for this limited reliability and large errors is the sample of only 99 responses altogether.

Nevertheless, it is the authors' belief that the data are useful. This belief is based on the appropriate design, method, and execution of the research itself and the fact that the target respondent was reached. Therefore, while the size of the sample might be small, it reflects true opinion and can be used for descriptive and comparative purposes. Furthermore, the preliminary analysis of raw results spotted some patterns in the answers, which speaks in favour of possible segmentation.

An issue that also needs to be accounted for in the survey is the last question, which asks the desired rent price for the most appropriate office (also referred to as the optimal rent price). Issues connected with income disclosure and preferences for prices were always sensitive issues and are subject to understatement. In defence of the data, it must be said that optimal rent had a higher mean than the current price *(See Appendix 5, Table 4).* Moreover, as the respondents were required to have experience with office-related issues and to have some level of expertise in this area, the possibility and effects of understatement were diminished.

The last critical point is the extremely large size of current office for one of the cases. The figure was so large that it affected the mean value by more than 200 sq m, resulting in approximately 537.2 sq. m. Therefore the result was excluded from the survey. Its omission decreased the average size of an office to 256 sq. m.

8. Analysis

8.1. Factor Analysis

Table 5.1 in Appendix 6 summarizes the result of analysis when the variables of Rent, Parking, and Location were excluded to be analyzed separately. During interpretation of

components obtained, the authors faced a problem in explaining the inclusion of Catering Services in the second component set. Loaded with variables such as Modern Façade, High Speed Elevator, Professional Building Management, and New Building, this component set tends to explain internal and external image or prestige ratings. In neither theory nor expert interviews were Catering services mentioned as an image- or prestige-making tool, rather than pure support. Therefore, taking also into consideration its relatively low loading fraction, the Catering variable was excluded from factor analysis to be analyzed separately and the factor analysis was run again.

The new results are summarized in *Table 5.2* in Appendix 6. A similar problem appeared with the Suspended Ceiling variable, which was sorted in along with such interior image factors as New Building and Modern Façade. During the interview with the constructor, it was mentioned that a suspended ceiling is one of the cheapest solutions for the interior, representing just the technical aspect of a building. Therefore, after analyzing correlations, the Suspended Ceiling variable was included into the first component set, where mainly technical aspects are present.

After considering all the proposed components and analyzing correlations, the variables were grouped into several indexes. The authors were careful not to include more than four variables in one index, to be able to interpret it more precisely. As a result, out of seven proposed components, altogether 10 indexes were made.

The Strategic Location factor denotes how important it is for a company to be located close to its clients and business partners, which is a strategic consideration when choosing an office. The Location Comfort factor, on the other hand, shows the importance of pleasant surroundings and public transportation. These considerations might have an effect on employee satisfaction.

The factors of Infrastructure and Extra Services imply the importance of having Internet and telephone connections in the office, as well as the possibility to access a gym or sauna in the building. If the first factor (Infrastructure) is technical then most likely it is needed in operations; the second (Extras) has an impact on employee satisfaction.

	Factor	Components
1	Strategic Location	Proximity to client + Proximity to Business Partners
2	Location Comfort	Surrounding (park, lake, etc) + Availability of Public Transportation
3	Infrastructure	Internet + Telephone
4	Extra Services	Gym + Sauna
5	Technical Aspects of a Building	Dual Power Supply + Conditioning (Ventilation) System + Modern Security System + Building Management System
6	Technical Aspects of a Floor	Suspended Ceiling + Raised Floor + Distance from Window to Windom 20 meters + Height to Ceiling 2,7 meters
7	Technical Aspects of an Office	Effective, Open Planning + Customization + Effective Lighting
8	Image Making Internal Aspects	Professional Building Management + Modern Fast Elevator + Climate Control
9	Image Making External Aspects	New Building + Façade + Visibility
10	Choice of Floor	

Table 2 – Factors and their Components
Source: Created by authors

Technical aspects were divided into three groups, according to how they affect the company. The first group - concerning the whole building - represents the basic infrastructure (except for Internet and telephone) that helps to operate the building all the time. If one of the systems is malfunctioning, all the tenants might face difficulties with either safety or operations. The second group - concerning floor level - might be less critical to operations than the one of the whole building, as they rather affect spatial considerations on a particular floor. Also, in the literature (Resolution, 2004) the combination of height and distance from window to window determine the amount of light during daytime hours and influence ventilation capabilities, thus affecting operational capabilities of tenants. The third group – concerning office level - combine effective planning, the possibility to adjust office planning to the changing needs of the company, and effective lighting. These criteria influence the effectiveness of work within the office; therefore, they are expected to be of significant importance to companies.

The "image" aspects were classified as internal and external in relation to how an outsider is introduced to them. While the external aspects (New Building, Modern Façade, and Visibility) put more emphasis on the image of the company before entering it, the internal aspects create a prestigious image after entering the building, at the same time providing increased comfort to employees.

The Choice of Floor variable was the only one left in its component; therefore, it was analyzed as a single variable. Another reason for keeping it single is that this option may have different meanings such as, for example, a need for exposure (image-making factor), need for direct access to some outside facilities (operational factor) or fear (dislike) of high-

storey buildings (employee satisfaction). For this reason, choice of floor is left as a single loaded factor, to be interpreted together with other information.

To summarize, after the factor analysis, 25 variables from the questionnaire were transformed into nine factors, leaving five variables to be analyzed individually.

8.2. Cluster Analysis and Market Segmentation

After conducting cluster analysis, three clusters of companies were identified with sizes of 25, 35 and 39, respectively. All the results analysed below are interpreted on a scale from -3 to 3.

8.2.1. Cluster 1 – Money Savers

The name for the cluster comes from the tendency of its members to have lower requirements and demand lower rents in comparison to other clusters. The average figure for current rent and optimal rent for the most appropriate office is only 7.08 EUR per m^2 and 8.56 EUR per m^2, respectively *(for comparison with other clusters, see Graph 7.1, Appendix 8)*. The requirements, in turn, reflect perceived importance of RENT PRICE, PARKING, LOCATION and infrastructure. These factors were mentioned during the interview as key determinants of company preferences for offices. While parking and infrastructure are measures of effectiveness of the company, rent price has an influence on the balance sheet of the company. The location, on the other hand, helps to determine what the rent price will be, what the possibility to find a parking place is, and how long it will take to get to the CBD, namely Riga Centre.
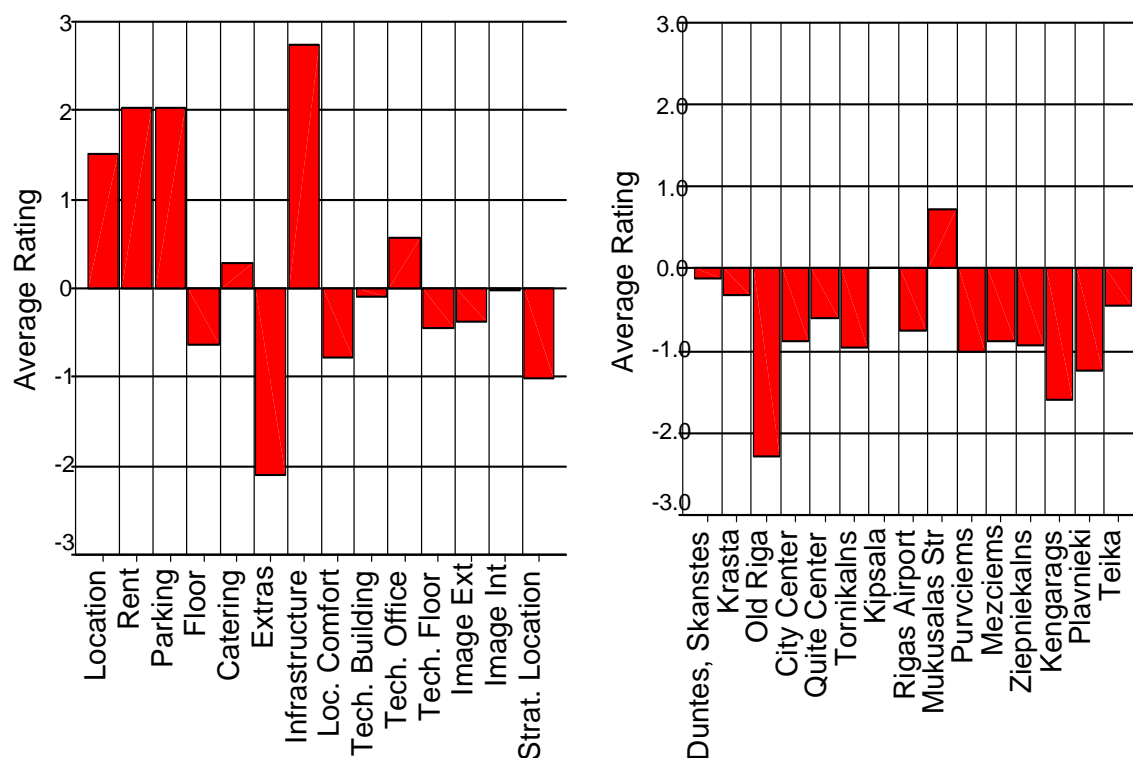
Graph 2 – Cluster 1: Money Savers
  a) Grading of Determinants   b) Grading of Locations
Source: Created by authors

Concerning this last measure, time to the CBD, the Money Savers also have the highest allowance – they allow for a trip from Old Riga to the office taking more than 20 minutes. Such preference goes well in hand with a little reservation rent price. This is also supported by the cluster's average grading on Riga regions. The only region to have a positive score is MUKUSALA STREET, while DUNTES STREET and KIPSALA are slightly below zero in preferences, followed by Krasta Street and Teika. The very negative grading of Old Riga (-2.28), shows that Money Savers are most likely to be found on the periphery of Riga, where the prices are lower and parking problems are not persistent.

When viewing industries that are associated with a cluster, it appears that Retail/Wholesale, Logistics and Construction are the leading segments here, representing 24%, 16% and 12% of cluster population respectively. PR&Marketing and IT&Communication companies seem to share 16% more. However, looking only at industries might not show the whole picture. Average numbers for office size and employment of the Money Savers *(Table 7.1, Appendix 10)* are 213.7 sq.m and 22 employees. This statistic shows that the sector has on average the smallest area per employee ratio among all clusters – 13.45 sq.m/employee. Even though 13.45 sq.m per person is a normal indicator in comparison to the study made by Resolution (2004, 36) indicating

average ratio of 13.67 sq.m, the results for other clusters support the opinion that Money Savers organize their offices basically for the purpose of efficiency, paying little interest to the image the office portrays, or employee satisfaction.

The last two figures for consideration are average desired size of the office, especially when comparing to its current size and the necessity for a new office. Currently, Money Savers want to increase their offices on average by 44.5 sq.m, or by 20.82%. This is again the smallest number both in absolute and percentage terms. Concerning the necessity for a new office, these companies on average scored negatively on this question. This observation implies that the companies in this cluster are growing slowly and on average they do not look for a new, modern office.

To summarize, the Money Saver cluster is a set of companies with comparatively low requirements towards the building and little willingness to pay. They are most likely to look for effectiveness in use of time and resources, and are most likely to be found out of the current CBD, where prices for commercial space are lower. Companies in this cluster are mostly tied to their current offices and express a limited willingness to expand their office space. Money Savers seem to unite many industries with the biggest representation of retailers/wholesalers, construction, and service companies.

8.2.2. Cluster 2 – Developing Enthusiasts

The members of this cluster seem to directly oppose the Money Savers. The first difference appears already in the current and optimal rent prices that Developing Enthusiasts are paying or are ready to pay – 9.50 EUR per m^2 and 11.25 EUR per m^2, respectively. However, they also have extensive expectations from their offices. Besides the strong interest in LOCATION, RENT, PARKING and INFRASTRUCTURE, they show concern in ALL FACTORS, except for extra offers like gym and sauna for employees. Yet, even this unpopular requirement was rated with the most interest among all three clusters – only -.89 of our minimum –3. Almost all other variables are rated around 1, showing that decision-makers among Enthusiasts are concerned about employee satisfaction and comfort. These are accompanied by the image that the chosen office building might add to the company, strategically correct location, and effective design and operations at all levels. The highest ratings among these are for catering services, internal image-making aspects and technical aspects of the office, supporting the point that companies in this set are trying to keep balance in all office aspects.
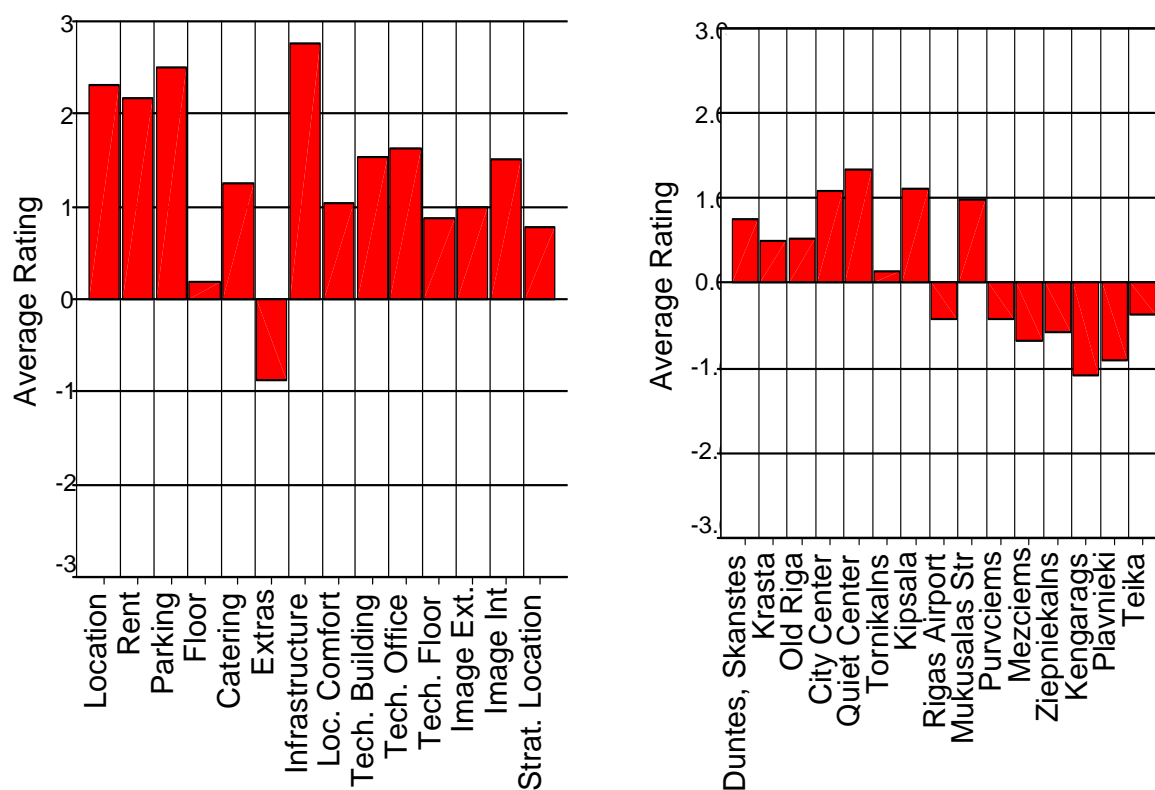
Graph 3 – Cluster 2: Developing Enthusiasts
            a) Ratings of Determinants   *b) Ratings of Locations*
Source: Created by authors

In terms of preference for locations, Enthusiasts showed just as much diversity as with requirements. These companies rated the CBD positively and almost all regions that are close to it. Here, the decision makers evaluated CITY CENTER and QUIET CENTER with 1.09 and 1.34 respectively, giving them quite high marks. KIPSALA and MUKUSALA, areas that are being actively developed at the moment, follow with scores of 1.11 and 0.97. Duntes – Skanstes, Krasta, Old Riga and even Tornakalns areas are less attractive for this kind of company, but are, nevertheless, positively rated. However, the decision-makers from this set are not very free about time taken from Old Riga to office premises and in general prefer it to be not more than 15 minutes.

Developing Enthusiast companies seem to have on average larger offices and less employees in comparison to Money Savers, resulting in 18.98 sq.m office space per person. This is the largest sq.m/person ratio among all three clusters, which could be also an indicator of a prestige-seeker profile. As for optimal size, the company generally seeks to increase its office space from 241.2 sq.m to about 333 sq.m, or by 38.1%. Combined with a generally neutral attitude towards seeking a new office (-.1176 compared to –1.12 of the Money Savers rating) it signals that this segment has better growth and development perspectives. Given the

high standards, decision makers set a building and relatively high stated optimal price, this cluster might be a good target for new office projects that are developing or going to be developed in Riga in the nearest future.

The industry composition of Enthusiasts is much dispersed. Retail companies again represent 20% of the set, followed by IT & communications and construction agencies with 14.3% and 11.4% shares, correspondingly. The rest is represented mostly by service industries (e.g., real estate, financial advisory, PR and marketing, audit and consulting) and several more trade industries (pharmaceuticals and logistics) with shares of less than 10%. *(See graph 8.2, Appendix 9)*

Such a portfolio demonstrates that companies group into the cluster not by industry type, but rather by market behaviour. According to this behaviour, Developing Enthusiasts tend to have certain expectations of almost all the characteristics of an office building, most likely trying to combine them and create competitive advantage. They prefer to be in CBD or close to it and agree to pay a reasonable price for it. These are most likely developing companies with good growth prospects that would like to have a qualitative and prestigious office.

8.2.3. Cluster 3 – Established Value Appraisers

This set of companies received its name for its very determined location preferences and requirements towards a building. Decision-makers of this cluster are very united in their preferences for the CBD – OLD RIGA, CITY CENTER, AND QUIET CENTER. All the other areas, except for Kipsala, received an average grade of less than –1, with some even approaching the minimum of –3. This goes well in hand with time to Old Riga preferences, according to which the Value Appraisers wish to be located within 10 minutes distance. Additionally, this cluster has the highest reservation prices, paying on average around 11 EUR per sq.m and being ready to pay up to 12.30 EUR per sq.m for the most appropriate office.

Taking these points together, an image of aggressive and determined companies with a defined set of priorities appears.
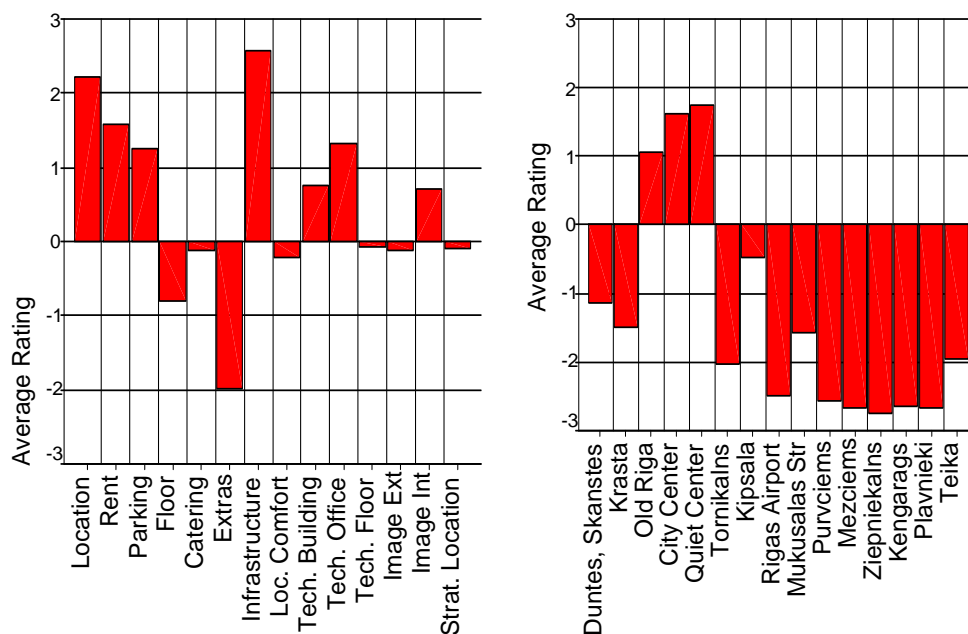
Graph 4 – Cluster 3: Established Value Appraisers
           a) Ratings of Determinants   b) Ratings of Locations
Source: Created by authors

Addressing the priorities, besides PARKING, RENT PRICE, INFRASTRUCTURE and LOCATION, the Value Appraisers stress the importance of TECHNICAL and internal IMAGE-making aspects of the office. The scores for these are 1.33 and 0.7, indicating some importance on average. All the other aspects, except for choice of floor and extra offers that have a definite negative tendency, are insignificantly below zero value. Such a preference structure might contradict the name Value Appraisers. However, it is the authors' belief that these companies have already incorporated certain standards into the definition of what is "normal" and are accustomed to buildings of high quality and well-organized space. This opinion is derived from the relatively high rent price that Appraisers are ready to pay and their definite preference for the CBD, the most prestigious area in Riga.

The typical size for these companies is 305 sq.m, while the average number of employees is 45. Appraisers have most likely stabilized their operations and maybe even established brand names. That is where the adjective "Established" part of the cluster name comes from. That also explains why decision-makers did not emphasize strategic proximity to clients and business partners – a Value Appraiser is important and serious enough (in comparison to other clusters) for the client or partner to either come to their office or invite to its own premises.

Concerning office growth, the optimal desired size of a representative company is 425 sq.m, which is an increase of 39.3% from the current office. The majority of respondents did

not see a need for a new office, despite the sub-optimal size. Such an opposing tendency might be explained by the narrow range of offers in the area of most interest, especially since a typical company is quite large. Therefore, the reason for the high growth figure is mostly due to other reasons (lack of suitable offers, increasing standards, and increased competition) than the growth of the company itself, as in case of Developing Enthusiasts.

As for industry mix, the Value Appraisers represent audit and consulting, PR and marketing, banking, architectural and law agencies that altogether cover 60% of the segment. *(See Graph 8.3, Appendix 9)*

Summarizing the profile of the Established Value Appraisers, it is important to indicate that such companies are looking for qualitative office space in the CBD and are ready to pay considerably higher rents for it. The CBD is vital for these businesses and no other location is preferred. The representatives of this cluster are on average large in both employment and office size, but are comparatively slow-growing, and not willing to look for a new office even if current size is sub-optimal. *(See Appendix 7 for detailed cluster comparison by factors)*

8.3. Analysis of Consumer Choice

8.3.1. Choosing Requirements

Considering the decision-maker choices on requirements, expert opinion on the high importance of location, parking, and rents is obvious. However, the results for psychological or perceptional requirements (as opposed to technical) are ambiguous. The division of technical and perceptional in the authors' opinion is as follows:

Technical /Financial	Perceptional
Infrastructure	Strategic Location
Technical Aspects of a Building	Location Comfort
Technical Aspects of a Floor	Extra Services
Technical Aspects of an Office	Image Making Internal Aspects
Rent	Image Making External Aspects
Parking	Choice of the Floor
	Location
	Catering

Table 3 – Technical and Perceptional Indexes
Source: Created by authors

Looking at the company cluster profiles, technical requirements dominate choice by providing essentially important technical aspects such as Internet and telephone, which is

evident for all clusters in the sample. Yet, there are differences in importance ranking between clusters for factors describing image and prestige, atmosphere in the office, comfort level, and attitude towards extra facilities available. On average, these psychological qualities of office space are evaluated as important and necessary. The greatest concerns for these requirements are shown by Developing Enthusiasts, which is explained by their fast-growing business and emerging need to upgrade their current office location. They, as opposed to Established Value Appraisers, are sensitive to all marginal improvements that will make life in the office better and more effective. They care about image (mean 1.24) mostly because they are in the phase of establishing their position in the market. The other clusters care about image much less (only -0.21 for Money Savers and 0.29 for Established Value Appraisers). However, judging from the means, the Value Appraisers are more concerned with internal image factors such as professional building management, high speed elevator, and climate control, even though they are highly recognized and established companies that should be concerned with external image factors (new building, modern façade, and visibility) as well. Nevertheless, the interpretation of these figures is that cluster 3 is already located in a high quality building and their judgement most probably is skewed to the relative marginal benefits that up-market office space can provide, in addition to what they already have. The explanation lies in the fact that they are used to high quality offices and take most of the requirements for granted. This explanation seems reasonable in the light of the results obtained from the survey.

The results for cluster 1 (Money Savers) are dubious in the sense that their optimal rent levels for the most part correspond to lower class B office space. This is explained by the fact that all class B tenants were included in the sample and accordingly play their role in the results. Therefore, their significance in this paper is decreased, as the scope of the work concerns A and B+ category tenants. The Money Saver cluster is also not expected to provide a reasonable evaluation of the highest class office requirements, as they simply do not consider them important.

Therefore, the most appropriate target group (but not the only one) to describe the needs of a company from the psychological point of view is the Developing Enthusiasts. Their psychographic profile is clearly concerned about image, and comfort in the office. Therefore, it can be concluded that according to consumer behaviour theory, perceptional requirements do matter in the decision-making process of the up-market office tenant.

8.3.2. Choosing Location

For the most part, companies have chosen to be located in Quiet Centre, City Centre, Kipsala, Old Riga, and Mukusala, which score the highest on average among all clusters. The Money Saver cluster has chosen to be further away from Old Riga and to locate its office either in Kipsala, which is very close to the CBD, or in the Duntes – Skanstes Street region, which is about 15 minutes away from the centre. Money Savers are one fourth of the whole respondent size and thus represent the smallest part; however, these regions are highly appreciated by the Developing Enthusiast cluster as well.

Developing Enthusiasts prefer Quiet Centre, City Centre, Kipsala and Mukusalas Streets, closely followed by the Duntes - Skanstes regions. This shows that there is a tendency for growing firms to be located in the CBD as well; however, they would also be satisfied with developing districts a little further away. If compared to Value Appraisers, this cluster shows a very obvious tendency to reside in the CBD, with the highest value for the Quiet Centre.

According to traditional location theory, the agglomeration signs include high importance given to advanced infrastructure and communications system, prestige related to location, and proximity to clients and business partners. From the survey results it can be concluded that up-market office tenant companies require these features, and that there is an obvious tendency for established companies to cluster in the CBD. However, it is also apparent that small clustering signs are emerging around the busy CBD in Duntes-Skanstes Streets, Kipsala and Mukusala regions that could create significant clustering in these areas in some 8-10 years time.

9. Conclusions

This paper contributes several findings to office market research in Riga. These concern factors that decision-makers in office choice value the most. The sample representing the company profile located in Riga forms three distinctive clusters – Money Savers (25%), Developing Enthusiasts (35%), and Established Value Appraisers (40%).

Firstly, the survey data and expert opinions in the field show that the most important factors for choosing class A and B+ office space are: good location, parking availability, rent, and office infrastructure – Internet and telephone. These are closely followed by effective lighting and climate control in the office. The least important requirements are availability of gym and sauna, suspended ceiling, and attractive surroundings. Overall, the importance of psychological factors in office choice is considerably high and is expected to increase.

Secondly, the most attractive areas in Riga for businesses are Quiet Centre, City Centre, and Old Riga and the new developing business areas – Duntes – Skanstes Streets, Kipsala, and Mukusalas Streets. Overall, the agglomeration phenomenon is present in Riga CBD with all its characteristics. However, as stated, there are appearing several nearby regions close to the city centre that might either become new clustering centres for business activities or join with the current CBD in the next decade. As a result, future definition of the CBD is likely to change and might include areas expanding considerably over its current borders.

The modern office market in Riga is just in its development stage. Sleeping demand is gradually waking up and contemporary company executives are starting to set higher office standards. In several years, further research might empirically analyse consumer choice of top class offices based on a decent stock of respective offices.

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Terminology

Agglomeration – the clustering of business head offices in the metropolitan or central area of a region.

CBD - Central Business District or City Centre, one of the most often used acronyms in real estate, which in the Riga context is the approximate area between the Daugava right bank in the West, Pernavas Street in the East, Satekles Street in the South and Valdemara Street in the North *(See Graph 5, Appendix 1)*. This region is considered to be the main business area that attracts the most consumers and business clients and has the most developed infrastructure and communications system.

Office Stock – represents the total completed office space (occupied and vacant) in the private and public sector at the survey date. Ideally, stock should include all types of buildings regardless of quality, age and ownership (i.e. both leased and owner-occupied).

Quiet Centre – Riga region between Hanzas, Valdemara, Elizabetes and Eksporta Streets.

Sq.m – square meters.

Vacancy rate – the ratio of unoccupied office space over the total available rentable office space.

Yields - the final profit derived from the net operating income (after deducting all non-recoverable expenditure) divided by total purchase costs (including price, costs and taxes).

Appendix 1

Graph 5 – Map of Riga Central Business District and Quiet Centre

1.2 – List of Requirements by Colliers Int.

Source: Office Guide 2005

1. New or fundamentally reconstructed building.
2. Location, public transportation availability.
3. Effective, open floor planning.
4. Space loss factor is not bigger than 13%.
5. Parking. At least 1 parking slot per every 30 sq. m of office space.
6. Modern façade. Modern engineering systems. In future – BMS.
7. High quality windows, rational displacement of windows.
8. Suspended ceiling.
9. The distance from window to window not more than 20 meters.
10. Average height to suspended ceiling 2.7 meters.
11. Not less than two-tube conditioning system.
12. 3 section joint for electricity, telephone and computer cables.
13. Contemporary, high speed elevators. Waiting time not more than 30 seconds.
14. Professional telecommunication provider in the building.
15. Professional building management.
16. Contemporary security and control systems.
17. Catering service.

Appendix 2 – European Market Data Definitions
Source: Cushman&Wakefield, DTZ, CBRE, and JLL

Grade of Office - Inevitably local market circumstances are likely to dictate local class of office definitions. As a guide the following features associated with the quality of office space should be used to define Class A, B and C space.

Quality aspects to consider include:
- Air conditioning system.
- Suspended ceilings.
- Floor to ceiling height minimum 2.70m.
- Flexibility of internal design.
- Either three compartment trunking for telephones, electricity and computer cable or raised floors.
- Modern high speed lifts, maximum waiting time of about 30 seconds.
- Good quality fitted carpets and wall finishes.
- Provision of secure dedicated car parking.
- Reliable telephone and communications equipment.
- Dual power supply and/or power supply system back-up.
- Humidity control.

Grade A Reflects an above average property in that market with quality criteria being at the upper end of the scale.
Grade B Reflects an average or typical property in that market based on the criteria.
Grade C Reflects a below average property in that market based on the quality criteria.

Appendix 3 – Expert Interviews

3.1 – List of Expert Interviewees

1. Mihails Danilevics – Commercial real estate specialist, real estate company "Ober Haus".
2. Rasa Villerusa – Office market specialist, real estate company "Ober Haus".
3. Janis Krumins – Commecial real estate specialist, real estate company "Arco Real".
4. Sergey Snegirjov – Commercial real estate consultant, International Property Advisor Company " Resolution".
5. Santa Rozenkopfa – Commercial property Service Administrator, International Property Advisor Company "Resolution".
6. Vilnis Gavars – Director, Construction company "Gavars".
7. Alexey Avanessov – Financial economist, real estate development company "RB Management".
8. Andrey Maslov – Real estate consultant, real estate company "Nira Fonds".

3.2 – List of Open-Ended Questions to Expert Interviewees

1. What is, in your expert opinion, the current situation in the office market in Latvia in terms of supply and demand?
2. What is the current development of offices in Riga? Are there many new projects?
3. How would you define a class A office space?
4. What is the approximate total area in sq.m of up-market office space in Riga?
5. What are the rent prices for up-market offices in Riga?
6. What factors influence the rent prices of offices?
7. What factors influence the consumer choice of the office?
8. What are the most demanded office locations currently?
9. What could be the future demanded office locations in Riga?
10. What is the proportion of foreign to local up-market office renters?
11. How do you think the office market will develop in future in Latvia?

Appendix 4 – The Questionnaire

4.1 – Structure of Questionnaire

Question 1 looks at the industry the company is operating in. It is a multiple-choice question with one possible option per respondent.

Question 2 – identifying current and optimal size of the office. Multiple-choice question, where respondent is asked to tick one option for how much optimal office size deviates from current, and in the box below indicate the current size of the office. The optimal size of the company's office is calculated by taking the current size and adjusting it according to respondent's preferences.

Question 3 – identifying preference for time when locating the office. The question is multiple-choice with one option to choose.

Question 4 – current office rent. Given as a set of 2 Euro spreads, this question aims at distinguishing current class of rented space and providing a proxy for the last question – optimal price that respondent would be willing to pay for a well-fit office. The question is multiple-choice with one option to choose.

Question 5 – approximate number of employees in the company, as another proxy for the size of the company. An open box question, where respondent is asked to write an appropriate number.

Question 6 is a 1-6 Likert scale, indicating the importance of listed criteria when selecting an office. The scale is leveraged to provide both positive and negative opinions, and forced (no 'neutral' option), in order to mitigate possible desire of respondent to save time by selecting 'neutral' answer. The criteria for grading is selected in such a way to represent most important aspects of the office being perceived as image creators, affecting level of comfort and/or operational effectiveness. Some of the criteria might be concluded to be technical, but they are included here as they fit into above-mentioned categories.

Question 7 and *question 8* are 1-6 Likert scales, indicating the importance of purely technical aspects of a building, and the necessity for a new office, correspondingly. The scale is leveraged to provide both positive and negative opinions, and forced, in order to mitigate possible desire of respondent to save time by selecting 'neutral' answer.

Question 9 is a 1-7 Likert scale to measure the attractiveness of 15 regions of Riga for possible office locations. The scale is leveraged to provide both positive and negative opinions, and non-forced, so as to allow respondent to express neutral preference. The reason for allowing this option at this stage is that respondents are aware of company's preferences

and it is easier for them to formulate their preference, hence minimizing the 'neutral' option selection rate.

   Question 10 - optimal office rent that company would be willing to pay. Given as a set of 2 Euro spreads, it is multiple-choice question with one option to choose.

4.2 – English Version

Question 1 - What is the industry your company operates in?
(Please, select one option)
Banking
Law
Retail
Real Estate
IT and Communications
Pharmaceutics
Catering
Logistics
Consulting
Audit
Tourism
Marketing
Broker agency
State agency
Other _____
Question 2 – If compared to your current office, what would be the optimal office size for your company?
(Please, select one option)
Smaller by 200 m2 and more
Smaller by 100 m2
Smaller by 50 m2
Current size is optimal
Larger by 50 m2
Larger by 100 m2
Larger by 200 m2
Larger by 300 m2
Larger by 400 m2
Larger by 500 m2
Larger by more than 500 m2
What is your current office size in m2?

Question 3 – How many minutes of car drive away from the centre (Old Town), including average traffic and weather conditions, would you locate your office?
(Please, select one option)
Up to 5 minutes
Up to 10 minutes
Up to 15 minutes
Up to 20 minutes
Up to 25 minutes
Up to 30 minutes

More than 30 minutes
Time doesn't matter
Other_____

Question 4 – What is your current rent per m2 per month excluding maintenance and VAT?
(Please, select one option)
Less than 6 EUR (approx. 4.20 LVL) per m2
6 – 7.99 EUR (approx. 4.21 – 5.61 LVL) per m2
8 – 9.99 EUR (approx. 5.62 – 7.02 LVL) per m2
10 – 11.99 EUR (approx. 7.03 – 8.43 LVL) per m2
12 – 13.99 EUR (approx. 8.44 – 9.83 LVL) per m2
14 – 15.99 EUR (approx. 9.84 – 11.24 LVL) per m2
16 – 17.99 EUR (approx 11.25 – 12.65 LVL) per m2
18 – 19.99 EUR (approx. 12.66 – 14.05 LVL) per m2
20 EUR (approx. 14.06 LVL) and more

Question 5 – Approximately how many people work in your office?

Question 6 – On the scale of 1 to 6, please grade, how important are the following factors in choosing the office for your company
1 – Irrelevant
2 - Unimportant
3 – Low Importance
4 – Slightly Important
5 – Important
6 – Very Important

	1	2	3	4	5	6
Location						
Rent price						
Parking						
Proximity to clients						
Proximity to business clients						
Public transportation availability						
Surroundings (i.e. close to park, lake)						
Floor (renting space on a particular floor)						
Customization (possibility to adjust the planning of the floor space to match your need)						
Modern security control system						
Visibility, exposure to the clients						
Professional building management						
Infrastructure – telephone						
Infrastructure – internet						
Climate control						
High speed elevator						
Modern façade						
Catering Service						
Gym for employees						
Sauna for employees						

Question 7 – Please, on the scale of 1 to 6 grade the following Technical Office
Requirements in order of importance to you.
1 – Irrelevant
2 – Unimportant
3 – Low Importance
4 – Slightly Important
5 – Important
6 - Very Important

	1	2	3	4	5	6
New building						
Suspended ceiling						
Height to the ceiling 2,7 meters						
Effective, open floor planning						
Effective lighting						
Building Management System – BMS						
Dual power supply and/or power supply back-up						
The distance from window to window not more than 20 m						
Conditioning system						
3 compartment trunking for electricity, telephone and computer or raised floors						

Question 8 – How important is for your company to find a new office at the moment?

Irrelevant	Unimportant	Low Importance	Slightly Important	Important	Very Important

Question 9 – How would you evaluate on the scale of 1 to 7 the following regions for
possible locations of your company office?
1 – completely unattractive
2 – unattractive
3 – doubtful
4 – neutral
5 – normal
6 – attractive
7 – very attractive

	1	2	3	4	5	6	7
Duntes, Skanstes Streets							
Krasta Street							
Old Riga							
City Centre (up to Pernavas Street)							
Quiet Centre (surrounded by Eksporta, Hanzas and Valdemara Streets)							
Tornakalns							
Riga Airport							
Kipsala							
Mukusalas Street							
Purvciems							

Ziepniekkalns							
Mezciems							
Kengarags							
Plavnieki							
Teika							

Questions 10 – What would be the highest limit for the office rent in the most suitable location for your company?
(Please, select one option)
Less than 6 EUR (approx. 4.20 LVL) per m2
6 – 7.99 EUR (approx. 4.21 – 5.61 LVL) per m2
8 – 9.99 EUR (approx. 5.62 – 7.02 LVL) per m2
10 – 11.99 EUR (approx. 7.03 – 8.43 LVL) per m2
12 – 13.99 EUR (approx. 8.44 – 9.83 LVL) per m2
14 – 15.99 EUR (approx. 9.84 – 11.24 LVL) per m2
16 – 17.99 EUR (approx 11.25 – 12.65 LVL) per m2
18 – 19.99 EUR (approx. 12.66 – 14.05 LVL) per m2
20 EUR (approx. 14.06 LVL) and more

4.3 – *Latvian Version*

1. - Kādā nozarē strādā Jūsu kompānija?
(Lūdzu izvēlieties vienu vai divas atbilstošākās atbildes)
    Banku sfēra
    Jurisprudence
    Tirdzniecība
    Nekustamais īpašums
    IT un komunikācijas
    Farmācija
    Ēdināšana
    Loģistika
    Konsultācijas
    Audits
    Tūrisms
    Mārketings
    Brokeru aģentūra
    Valsts aģentūra
    Cita_____

2. - Salīdzinot ar pašreizējo biroja platību, kāda būtu Jūsu biroja optimālā platība?
*(Lūdzu atzīmējiet vienu no piedāvātajām iespējām **kā arī** pēdējo opciju un norādiet Jūsu pašreizējo biroja platību)*
    par >=200 m2 mazāka
    par >=100 m2 mazāka
    par >=50 m2 mazāka
    pašreizējā platība ir optimāla
    par 50 m2 lielāka
    par 100 m2 lielāka
    par 200 m2 lielāka
    par 300 m2 lielāka

    par 400 m2 lielāka
    par 500 m2 lielāka
    par vairāk kā 500 m2 lielāka
    Kāda ir Jūsu pašreizējā biroja platība m2?_____

3. - Cik minūšu attālumā no pilsētas centra (Vecrīgas), braucot ar mašīnu un ņemot vērā satiksmes un laika apstākļus, Jūs izvēlētos sava biroja atrašanās vietu?
(Lūdzu izvēlieties vienu atbilstošāko atbildi.)
    Līdz 5 min.
    Līdz 10 min.
    Līdz 15 min.
    Līdz 20min.
    Līdz 25 min.
    Līdz 30 min.
    Vairāk kā 30 min.
    Laikam nav nozīmes
    Cits _____

4. - Kāda ir Jūsu pašreizējā īres maksa par kv.m mēnesī bez PVN un bez apsaimniekošanas maksas?
(Lūdzu izvēlieties vienu atbilstošāko atbildi)
    Mazāk par 6 EUR (approx. 4.20 Ls) par m2
    6 – 7.99 EUR (4.21 – 5.61 Ls) par m2
    8 – 9.99 EUR (5.62 – 7.02 Ls) par m2
    10 – 11.99 EUR (7.03 – 8.43 Ls) par m2
    12 – 13.99 EUR (8.44 – 9.83 Ls) par m2
    14 – 15.99 EUR (9.84 – 11.24 Ls) par m2
    16 – 17.99 EUR (11.25 – 12.65 Ls) par m2
    18 – 19.99 EUR (12.66 – 14.05 Ls) par m2
    20 EUR (14,06 Ls) par m2 un vairāk

5. - Kāds ir Jūsu biroja darbinieku skaits?
_____

6. - Lūdzu, novērtējiet, cik svarīgi Jums ir zemāk esošie faktori Jūsu biroja izvēlē:
    1 – Pilnīgi nesvarīgi
    2 - Nesvarīgi
    3 – Mazsvarīgi
    4 – Vērā ņemami
    5 – Svarīgi
    6 – Ļoti svarīgi

	1	2	3	4	5	6
Atrašanās vieta						
Īres maksa						
Autostāvvietas						
Klientu tuvums						
Biznesa partneru tuvums						
Sabiedriskais transports						
Apkārtne (piem. tuvu parkam, ezeram utt.)						
Stāvs						
Iespēja pārplānot biroju ja rodas						

nepieciešamība						
Moderna drošības sistēma						
Redzamība, ekspozīcija klientiem						
Profesionāls ēkas menedžments						
Infrastruktūra – telefons						
Infrastruktūra – internets						
Klimata kontrole						
Ātrgaitas lifts						
Moderna ēkas fasāde						
Ēdnīca vai restorāns						
Trenažieru zāle darbiniekiem						
Sauna						

7. – Lūdzu, novērtējiet sava biroja tehnisko parametru svarīgumu.
    1 – Pilnīgi nesvarīgi
    2 - Nesvarīgi
    3 – Mazsvarīgi
    4 – Vērā ņemami
    5 – Svarīgi
    6 – Ļoti svarīgi

	1	2	3	4	5	6
Jaunceltne						
Piekaramie griesti						
Griestu augstums ne mazāk par 2,7 m						
Efektīvs, atklāts stāva plānojums						
Efektīva apgaismošana						
BMS – ēkas menedžmenta sistēma						
Dubulta strāvas padeves sistēma vai analogs						
Attālums no loga līdz logam 20 m						
Ne mazāk kā divu cauruļu kondicionēšanas sistēma vai atbilstošs analogs						
Trīs sekciju kārba elektrības, telefona un datora kabeļiem vai virsgrīda						

8. – Cik svarīgi šobrīd ir Jūsu kompānijai atrast jaunas biroja telpas?
(Lūdzu izvēlieties vienu atbilstošāko atbildi.(6 ballu skalā))

Pilnīgi nesvarīgi	Nesvarīgi	Mazsvarīgi	Vērā ņemami	Svarīgi	Ļoti svarīgi

9. – Kā Jūs novērtētu sekojošos reģionus (ielas) kā iespējamās Jūsu biroja atrašanās vietas?
    1 – Ļoti nepievilcīgi
    2 – Nepievilcīgi
    3 – Šaubīgi-
    4 – Neitrāli
    5 – Normāli
    6 – Pievilcīgi
    7 – Ļoti pievilcīgi

	1	2	3	4	5	6	7

Duntes, Skanstes ielas								
Krasta iela								
Vecrīga								
Pilsētas centrs (līdz Pernavas ielai)								
Klusais centrs (starp Eksporta, Hanzas un Valdemāra ielām)								
Torņakalns								
Ķīpsala								
Rīgas Lidosta								
Mūkusalas iela								
Purvciems								
Mežciems								
Ziepniekkalns								
Ķengarags								
Kengarags								
Pļavnieki								
Teika								

10. – Kāda būtu visaugstākā maksa par kv.m mēnesī, ko Jūs maksātu par biroja telpām Jūsu kompānijai vispiemērotākajā reģionā?
(Lūdzu izvēlieties vienu atbilstošāko atbildi)

    mazāk par 6 EUR (approx. 4.20 Ls) par m2
    6 – 7.99 EUR (4.21 – 5.61 Ls) par m2
    8 – 9.99 EUR (5.62 – 7.02 Ls) par m2
    10 – 11.99 EUR (7.03 – 8.43 Ls) par m2
    12 – 13.99 EUR (8.44 – 9.83 Ls) par m2
    14 – 15.99 EUR (9.84 – 11.24 Ls) par m2
    16 – 17.99 EUR (11.25 – 12.65 Ls) par m2
    18 – 19.99 EUR (12.66 – 14.05 Ls) par m2
    20 EUR (14,06 Ls) par m2 un vairāk

Appendix 5 – Descriptive Statistics

Table 4.1 – Descriptive Statistics: Requirements

	N	Minimum	Maximum	Mean	Std. Error	Std. Deviation	Variance
L_INTERN	99	-3.00	3.00	2.6970	.0879	.87429	.764
L_PHONE	99	-3.00	3.00	2.6667	.1015	1.01015	1.020
L_LOCATN	99	-2.00	3.00	2.0808	.1100	1.09430	1.197
L_RENT	99	-3.00	3.00	1.9091	.1075	1.06991	1.145
L_PARKNG	99	-3.00	3.00	1.8990	.1366	1.35898	1.847
L_LIGHTG	99	-1.00	3.00	1.8889	.1004	.99887	.998
L_CLIMAT	99	-3.00	3.00	1.4545	.1416	1.40896	1.985
L_SECURT	99	-3.00	3.00	1.3333	.1464	1.45686	2.122
L_PROFBM	99	-3.00	3.00	1.2121	.1581	1.57320	2.475
L_PLANNG	99	-3.00	3.00	1.1111	.1338	1.33163	1.773
L_RAISFL	99	-3.00	3.00	.9091	.1811	1.80187	3.247
L_POWSUP	99	-3.00	3.00	.8788	.1760	1.75123	3.067
L_CUSTOM	99	-3.00	3.00	.7172	.1533	1.52557	2.327
L_H2.7M	99	-3.00	3.00	.6768	.1661	1.65263	2.731
L_BMS	99	-3.00	3.00	.5960	.1686	1.67770	2.815
L_PUBTRN	99	-3.00	3.00	.5556	.1789	1.77983	3.168
L_FACADE	99	-3.00	3.00	.5051	.1658	1.64982	2.722
L_CATERN	99	-3.00	3.00	.4646	.1601	1.59280	2.537
L_CONDIT	99	-3.00	3.00	.4545	.1840	1.83098	3.353
L_VISIBL	99	-3.00	3.00	.3737	.1797	1.78763	3.196
L_PROXCL	99	-3.00	3.00	.0202	.1915	1.90584	3.632
L_PROXBP	99	-3.00	3.00	-.0707	.1766	1.75693	3.087
L_ELEVAT	99	-3.00	3.00	-.2525	.1868	1.85903	3.456
L_WTW20M	99	-3.00	3.00	-.2626	.1726	1.71777	2.951
L_NWBULD	99	-3.00	3.00	-.2626	.1726	1.71777	2.951
L_SURRON	99	-3.00	3.00	-.3838	.1584	1.57601	2.484
L_FLOOR	99	-3.00	3.00	-.4040	.1728	1.71975	2.958
L_SUSCEL	99	-3.00	3.00	-.6667	.1753	1.74379	3.041
L_GYM	99	-3.00	2.00	-1.4343	.1430	1.42257	2.024
L_SAUNA	99	-3.00	2.00	-1.8081	.1313	1.30679	1.708
Valid N (listwise)	99						

Source: Created by authors- SPSS software.

Table 4.2 – Descriptive Statistics: Locations

	N	Minimum	Maximum	Mean	Std. Error	Std. Deviation	Variance
QTCENTR	99	-3.00	3.00	1.0101	.1853	1.84333	3.398
CTYCENTR	99	-3.00	3.00	.7980	.1805	1.79557	3.224
KIPSALA	99	-3.00	3.00	.2121	.1725	1.71591	2.944
OLDRIGA	99	-3.00	3.00	.0202	.2173	2.16173	4.673
MUKUSALA	99	-3.00	3.00	-.0909	.1953	1.94354	3.777
DUNTES	99	-3.00	3.00	-.2121	.1719	1.70995	2.924
KRASTA	99	-3.00	3.00	-.4949	.1474	1.46645	2.150
TORNKLN	99	-3.00	3.00	-.9899	.1696	1.68726	2.847
TEIKA	99	-3.00	3.00	-1.0101	.1602	1.59396	2.541
AIRPORT	99	-3.00	3.00	-1.3232	.1710	1.70131	2.894
PURVCIEM	99	-3.00	3.00	-1.4141	.1612	1.60363	2.572
MEZCIEMS	99	-3.00	3.00	-1.5152	.1515	1.50756	2.273
ZIEPNKLN	99	-3.00	3.00	-1.5152	.1614	1.60588	2.579
PLAVNIEK	99	-3.00	3.00	-1.6869	.1321	1.31434	1.727
KENGARAG	99	-3.00	1.00	-1.8283	.1193	1.18701	1.409
Valid N (listwise)	99						

Source: Created by authors. SPSS software.

Table 4.3 – Descriptive Statistics: Optimal vs. Current price

	N	Minimum	Maximum	Mean	Std. Error	Std. Deviation	Variance	Interpretation of Mean
OPTIMAL RENT	97	1.00	9.00	4.4845	.2031	2.00059	4.002	10.96 EUR/sq m
CURRENT RENT	95	1.00	9.00	3.7579	.2078	2.02493	4.100	9.51 EUR/sq m
Valid N (listwise)	94							

Source: Created by authors. SPSS software.

Graph 6 – Industries represented in the survey results
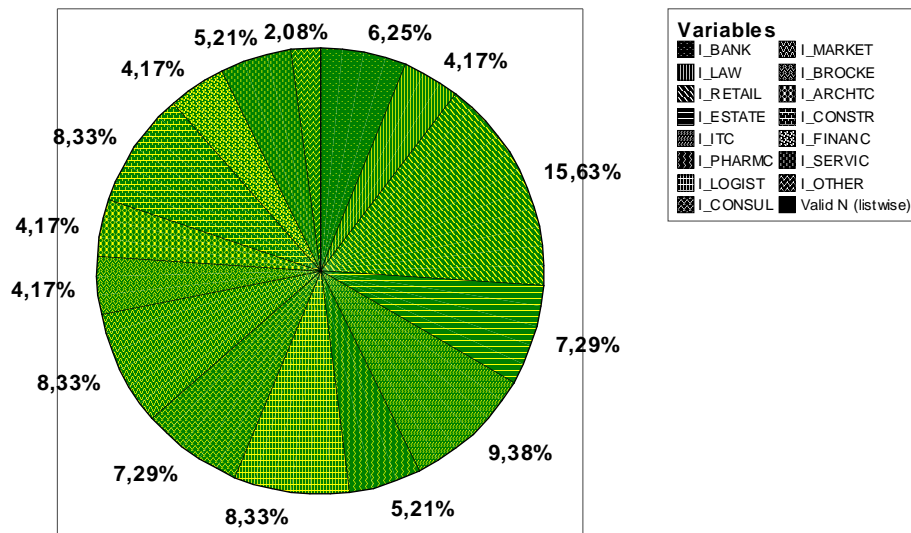
Source: Created by authors. SPSS software.

Appendix 6 – Factor Analysis

Table 5.1 – Rotated Component Matrix 1

	Component						
	1	2	3	4	5	6	7
L_POWSUP	.808						
L_RAISFL	.799						
L_PLANNG	.740						
L_CONDIT	.659	.494					
L_LIGHTG	.617						
L_CUSTOM	.610						
L_BMS	.604	.472					
L_WTW20M	.600			.415			
L_SECURT	.488		.442				
L_FACADE		.716					
L_ELEVAT		.682					
L_NWBULD		.651					
L_CLIMAT		.592					
L_PROFBM	.403	.507					
L_CATERN		.505					
L_PHONE			.908				
L_INTERN			.851				
L_SAUNA				.858			
L_GYM				.816			
L_PROXCL					.885		
L_PROXBP					.885		
L_PUBTRN						.800	
L_SURRON						.683	
L_FLOOR							.709
L_SUSCEL		.487					.560
L_H2.7M	.481						.541
L_VISIBL							.524

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 8 iterations.
Source: Created by authors. SPSS software.

Table 5.2 – Rotated Component Matrix 2

	Component						
	1	2	3	4	5	6	7
L_RAISFL	.796						
L_POWSUP	.793						
L_PLANNG	.719						
L_CONDIT	.648	.525					
L_CUSTOM	.644						
L_LIGHTG	.600						
L_WTW20M	.599						
L_BMS	.583	.476					
L_FACADE		.735					
L_NWBULD		.672					
L_ELEVAT		.659					
L_CLIMAT		.601					
L_SUSCEL		.548					.451
L_PROFBM		.486	.433				
L_PHONE			.903				
L_INTERN			.846				
L_SECURT	.461		.466				

L_SAUNA				.879			
L_GYM				.839			
L_PROXBP					.891		
L_PROXCL					.886		
L_PUBTRN						.818	
L_SURRON						.666	
L_FLOOR							.689
L_H2.7M	.438						.588
L_VISIBL		.424					.511

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. A Rotation converged in 8 iterations.
Source: Created by authors. SPSS software.

Table 5.3 – KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.830
Bartlett's Test of Sphericity	Approx. Chi-Square	1366.074
	df	325
	Sig.	.000

Source: Created by authors. SPSS software.

Appendix 7 – Cluster Analysis

Table 6.1 – Final Cluster Centers

	Cluster		
	1 – Money Savers	2 – Developing Enthusiasts	3 – Established Value Appraisers
LOCATION	1.52	2.31	2.23
RENT	2.04	2.17	1.59
PARKING	2.04	2.51	1.26
FLOOR CHOICE	-.64	.20	-.79
CATERING	.28	1.26	-.13
DUNTES, SKANSTES	-.12	.74	-1.13
KRASTA	-.32	.49	-1.49
OLD RIGA	-2.28	.51	1.05
CITY CENTER	-.88	1.09	1.62
QUIET CENTER	-.60	1.34	1.74
TORNAKALNS	-.96	.14	-2.03
KIPSALA	.00	1.11	-.46
RIGAS AIRPORT	-.76	-.43	-2.49
MUKUSALA	.72	.97	-1.56
PURVCIEMS	-1.00	-.43	-2.56
MEZCIEMS	-.88	-.69	-2.67
ZIEPNIEKKALNS	-.92	-.57	-2.74
KENGARAGS	-1.60	-1.09	-2.64
PLAVNIEKI	-1.24	-.91	-2.67
TEIKA	-.44	-.37	-1.95
EXTRA	-2.10	-.89	-1.97
INFRASTRUCTURE	2.74	2.77	2.56
LOCATION COMF	-.78	1.04	-.22
TECH BUILDING	-.09	1.53	.76
TECHN OFFICE	.56	1.62	1.33
TECHN FLOOR	-.45	.88	-.08
IMAGE EXTER	-.39	.98	-.11
IMAGE INTER	-.03	1.51	.70
STRAT LOCATION	-1.02	.77	-.10

Source: Created by authors. SPSS software.

Table 6.2 – Number of Cases in each Cluster

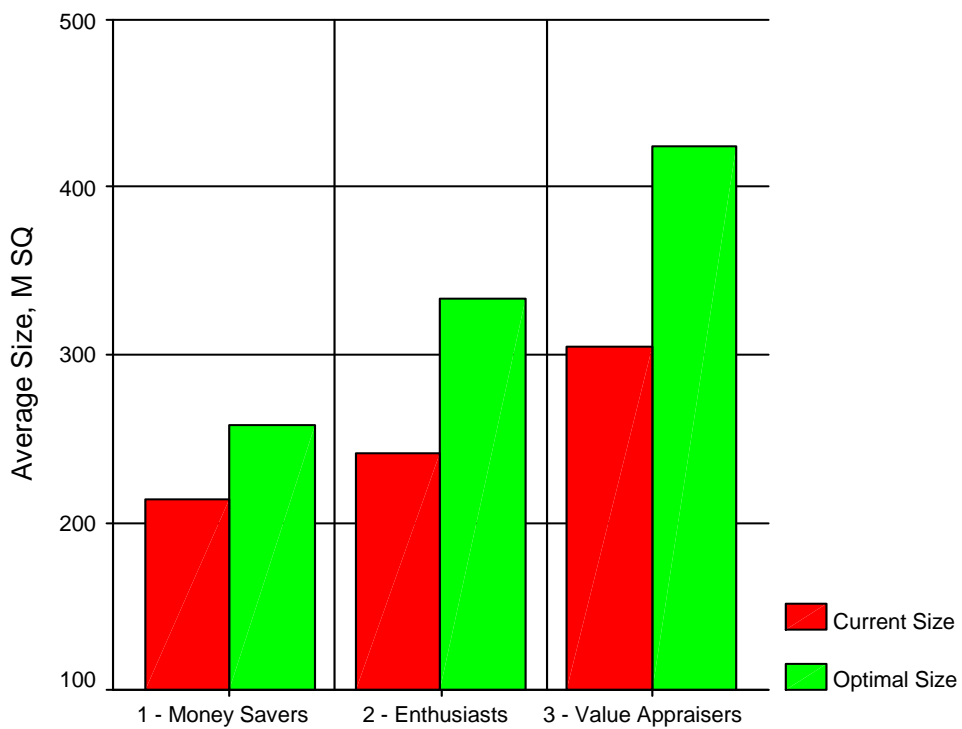|		
Cluster	1 – Money Savers	25.000
	2 – Developing Enthusiasts	35.000
	3 – Established Value Appraisers	39.000
Valid		99.000
Missing		.000

Source: Created by authors. SPSS software.

Appendix 8 – Cluster Comparison

Graph 7.1 – Current Rent, Optimal Rent, Time from Old Riga
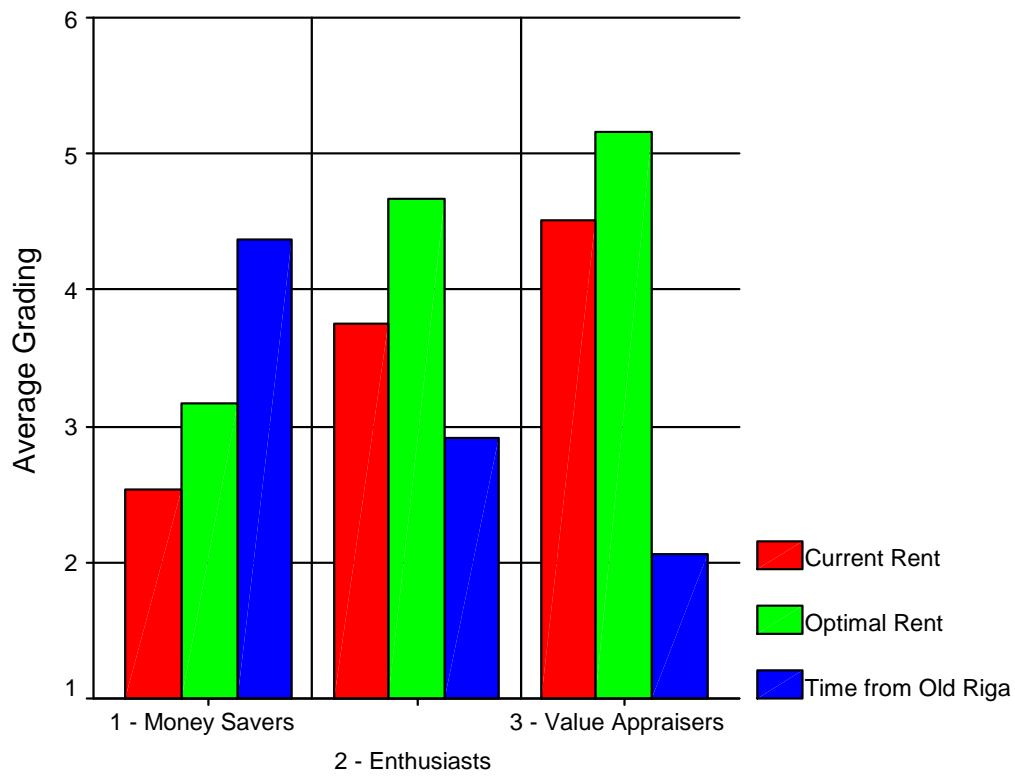
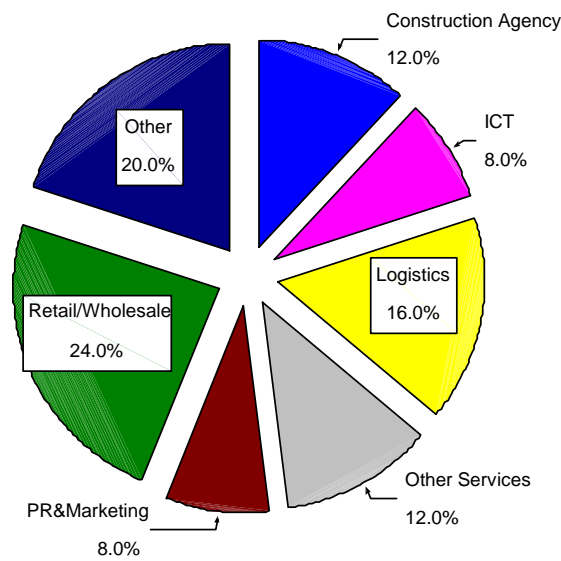*Source: Created by authors. SPSS software.*

Graph 7.2 – Average Current Size vs. Optimal Size

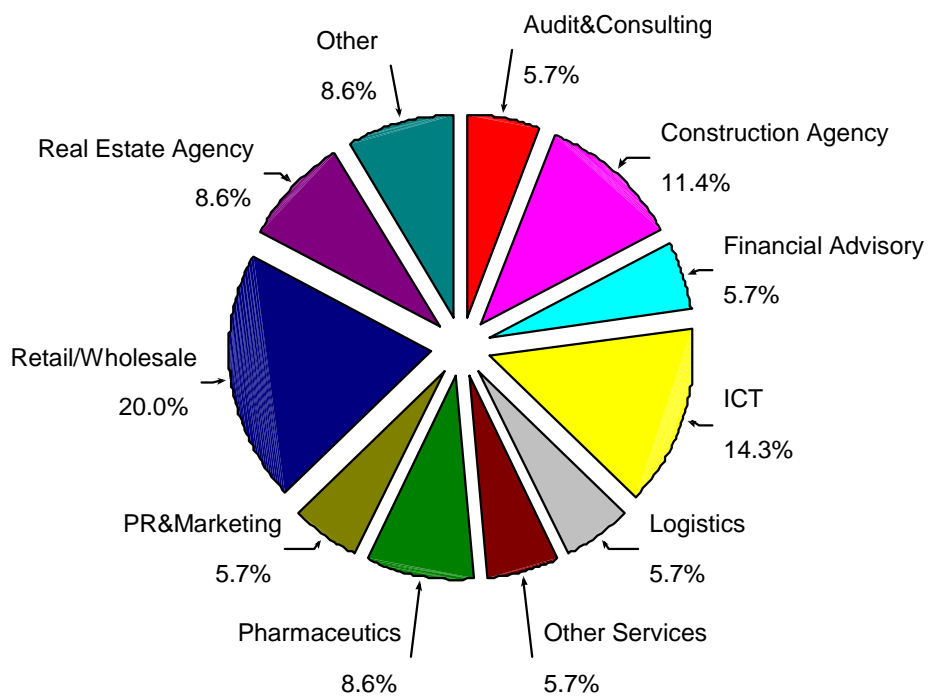*Source: Created by authors. SPSS software.*

Appendix 9 – Industry Composition

Graph 8.1 – Money Savers

Source: Created by authors. SPSS software.

Graph 8.2 – Developing Enthusiasts

Source: Created by authors. SPSS software.

Graph 8.3 – Established Value Appraisers

Minor Participants 7.7%
Real Estate Agency 7.7%
Retail/Wholesale 5.1%
PR&Marketing 12.8%
Logistics 5.1%
Law Agency 10.3%
Audit&Consulting 15.4%
Architect Agency 10.3%
Banking 10.3%
Brocker Agency 5.1%
Financial Advisory 5.1%
ICT 5.1%
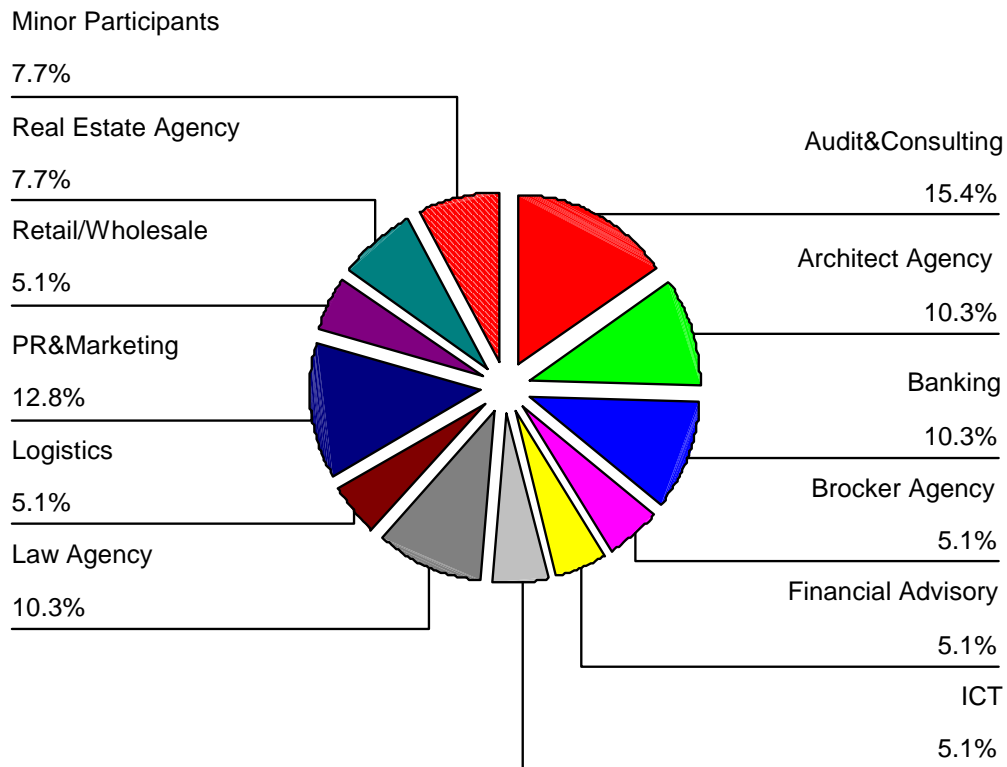
Source: Created by authors. SPSS software.

Appendix 10 – Descriptive Statistics, Clusters

Table 7.1 – Money Savers

	N	Min	Max	Mean	Std. Error	Std. Deviation
Current Rent	24	1.00	6.00	2.5417	.2552	1.25036
Optimal Rent	25	1.00	6.00	3.2800	.3241	1.62070
Time from Old Riga	25	1.00	9.00	4.2400	.4700	2.35018
M SQ per Employee	24	4.00	23.33	13.4450	1.0514	5.15086
Number of Employees	24	1.00	250.00	21.4583	10.5308	51.59034
Current Size	25	20.0	1600.0	213.672	71.396	356.9800
Optimal Size	25	30.0	2100.0	258.232	86.759	433.7943
New Office?	25	-3.00	3.00	-1.1200	.4255	2.12760
Valid N (listwise)	23					

Source: Created by authors. SPSS software.

Table 7.2 – Developing Enthusiasts

	N	Min	Max	Mean	Std. Error	Std. Deviation
Current Rent	33	1.00	9.00	3.7576	.3287	1.88796
Optimal Rent	35	2.00	9.00	4.6286	.3015	1.78368
Time from Old Riga	35	1.00	9.00	2.8571	.2324	1.37505
M SQ per Employee	31	3.33	61.60	18.9826	2.3592	13.13558
Number of Employees	35	1.00	82.00	14.8857	3.0557	18.07789
Current Size	31	30.0	1820.0	241.168	60.726	338.1079
Optimal Size	31	30.0	2420.0	333.103	84.099	468.2427
New Office?	34	-3.00	3.00	-.1176	.3345	1.95036
Valid N (listwise)	29					

Source: Created by authors. SPSS software.

Table 7.3 – Value Appraisers

	N	Min	Max	Mean	Std. Error	Std. Deviation
Current Rent	38	1.00	9.00	4.5263	.3553	2.19011
Optimal Rent	37	1.00	9.00	5.1622	.3455	2.10177
Time from Old Riga	39	1.00	9.00	2.1026	.2317	1.44723
M SQ per Employee	31	6.50	30.00	16.5852	1.2885	7.17421
Number of Employees	38	1.00	860.00	44.8158	22.7186	140.04707
Current Size	31	13.0	1300.0	305.016	65.400	364.1319
Optimal Size	31	13.0	1900.0	425.081	91.227	507.9329
New Office?	37	-3.00	3.00	-1.2162	.3175	1.93125
Valid N (listwise)	26					

Source: Created by authors. SPSS software.