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# Industry location assessment for multinational enterprises in Latvia

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Abstract: The research is drawn on the main hypothesis that Latvia does not use its advantageous location effectively supported by the previous research results published this year in the book "Climate change and adaptation to it: Latvia" where the authors found the modern industrial real property market stock would not need any further growth and pointed on the local industrial real estate market misbalance. The research subject is the leading industrial multinational enterprises with from the Baltic Sea Region working in Latvia. The survey is planned to be conducted in Latvia. A focus of the research is on finding out the key principles in those companies' choice on the most appropriate territory to the industrial objects and industrial location specifics. The Paper contains the questionnaire with the projected results, the analysis of other scientists' work results on the industrial location research and the model previously introduced. The worked out model is devoted to forecast stock of the modern industrial premises in Europe in the territory of the Republic of Latvia by the original approach of including the European climate change issue as a basis to assign the sustainable supply of the industrial premises, applying complex of the methods like logical approach and comparison, the system and dynamic row's analyses. The Paper is a message to professional critical view and assessment on the model and the questionnaire.

**Keywords:** business in the Baltic Sea Region; economically advantageous location; industry location; locational strategy; market attractiveness assessment.

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#### 1. Introduction

There are a number of reasons for the companies to assess the local market attractiveness to allocate the business.

The researchers stand at several problems of analyzing and assessing the consequences of the headquarters' decisions to enter the foreign markets. The leading theory on multinational enterprises location strategies explains the OLI (ownership, location and internationalization) triad advantages.

According to the previous research session results the authors concluded that Latvia may process the manufacturing industry development following the Czech or Swedish scenarios, which mean the considerable increase of the manufacturing branch efficiency approximately 3 to 6 times in Latvia, the authors allow that the modern industrial real property market does not need any further growth under the chosen scenarios.

Sweden invested into the developing Baltic (Latvian, Lithuanian and Estonian) economies most actively in the second and third year of the target countries' GDP growth. The financial crisis coursed the prompt capital outflow of the investigated Swedish assets and its reallocation. It has increased the assets the stable economies countries. The Lithuanian scientists facilitate forecasts of possible trends of fixed investment and corresponding economic growth [21].

As one of the examples, the Latvian periodical Dienas Bizness recently published news on Volvo decision to close the buses' manufacture in Sweden and fully bring it to the Polish manufacture subsidiary Volvo Buses. This strategy is based on the downturn on the sales and demand, so the company believes to cut the costs, but the movement cost estimated at 15 million US dollars [25].

The following hypothesis and questions to discussion were erected to the analysis: Latvia does not use its advantageous location effectively.

The further substantial chapters of the Paper are the Methods - a section explaining the methodology applied and scientific investigation of the industry location research based on the surveys and qualitative analysis listed in the scientific literature, the Results and discussion panel, which contains a list of the questions and problems arisen to build a basis for the survey and the model introduced, and Conclusions.

### 2. Methods

The main focus of the current research is on the ownership – Baltic Sea Region (further in text – BSR) multinational enterprises and location specifics. The authors targeted to work out the questionnaire to conduct the online survey in Latvia for the leading industrial business companies of the large and middle scale of C, D, E (NACE categories) working in the territory of Latvia with the capital shares from the Baltic Sea Region. A request on the qualitative and quantitative data was made to the Lursoft Company –the local data bases of enterprises. Total number of matches is 592 [28]. A research object is an industrial real estate property market in Latvia and the targeted companies are the subject of the research. The idea to get to know the key principle in their choice of the most appropriate territory to the industrial objects is supported by the question list given in Table 2. The main methods of the research used are the qualitative data analysis to obtain a list of the required

companies according to the criteria number worked out, and a literature observation which has indicated a theoretical background of the statistics and the issues of the market attractiveness, strategic analysis and business scope in the Baltic Sea Region.

In the book "Climate change and adaptation to it: Latvia" the authors proposed the original approach of including the European climate change issue as a basis to assign the sustainable supply of the industrial premises, applying complex of the methods like logical approach and comparison, the system and dynamic row's analyses [22].

The authors have studied several scientific works on the case of making survey and analyzing its results. In all cases studies dataset counted over 400 companies analyzed and rather high response rate – over 50 per cents, in some cases (personal interviews) even over 90 per cents. The current pessimistic expectation to the online survey might result from 20 to 50 per cent response rate due to limitations in direct contact information, fast changing market causing the bankruptcy of the current businesses in the short time period and possible low business interest to the survey or low degree of belief to the results data.

A standard theory of the professor John H. Duning on the multinational enterprises knowledge says that success of the foreign direct investment occurs when ownership, location and internationalization (OLI triad) advantages exceed the costs of establishing and running foreign subsidiaries [7], [4]. In this perspective the authors followed the above-mentioned criteria for the qualitative data set as well as working out the questionnaire.

Kronborg and Thomsen studying Denmark industry market from 1895 – 2005 used a matched sample methodology. The objective is to approximate a controlled experiment by matching a treatment group (foreign-owned companies) to a control group that is as similar as possible to the study group in relevant dimensions [2], [7], [11]. The sampling design is as follows: the foreign subsidiaries of manufacturing companies registered in certain years were sampled with a follow-up in the research year (2005). The data collection was made as bias free as possible by 1) identifying all foreign-owned companies in the company register, 2) choosing as control the company in the same industry category that same closest to the foreign company by assets (primary criteria) and share capital (secondary criteria). Therefore the database consisted of 528 pairs of companies.

We agree to Kronborg and Thomsen which cited other researchers on the idea that at the firm level the relative survival of foreign subsidiaries is likely to increase over time (with firm age) because the initial liability of foreignness is gradually overcome as a foreign subsidiary learns more about the host country environment and develops better connections to local business networks [7]. Within the market attractiveness criteria of the current research questionnaire list local collaboration opportunities (local authorities, scientists and business compainions), local tax policy and the advantages of the local natural resources' use are named between the reasons predetermined the choice of location and also future development plans of the companies.

The theoretical side, the Heckscher-Ohlin model suggests that the spatial distribution of economic activity is determined by comparative advantage due to factor endowments. In turn, New Economic Geography models show the existence of a bell-shaped relationship between the process of market integration and the degree of concentration of industrial activity in the territory. The analysis of the results shows that both comparative advantage and NEG-type mechanisms were determinant drivers of industrial location in Spain, although their relative strength changed over time [8],[10].

Mueller and Morgan in their research on the location decision of the manufacturers in Michigan based a study on personal interviews with top executives distinguish between three kinds of location decisions (see Fig.1 and Fig.2): 1) the location of new firms, 2) the decision of existing firms to stay at their present location or, alternatively, to relocate, and 3) location decisions which occur in connection with expansion of facilities [11][12].

Another research made in early 1960-ies by Greenhut and Jackson in Florida, USA, The most important single factor which, supposedly, influenced the firm to settle in Florida was the existence of a market for its product there and the prospects of substantial growth of that market. The second major factor in leading the firm to a location in Florida had been analyzed to do with costs. The community factor includes such advantages as proximity to raw materials, an extensive local market area, superior community services and facilities as well as the existence of sufficient space for expansion, nearness of plant location to workers' homes, and similar items. Indeed, for a theory of location designed to explain why firms have located in a certain community, all of these elements are suggested to be relevant [6].

**Figure 1.** The reasons for the first location decision – location of new firm analyzed by Mueller and Morgan in 1962, USA [12]

Important Locational Factors Mentioned;	All Michigan
Labor costs (wages, productivity) Proximity to markets (including transportation costs). Availability of labor (skills, supply) Industrial climate. Tauss. Proximity to materials (including transporta-	65% 62 56 53 52
water Unionism Community factors Marketing facilities Traffic access; parking Zoring, other regulations. Local sources of financing	7

**Figure 2.** The reasons for second location decisions – stay the same or relocate analyzed by Mueller and Morgan in 1962, USA [12]

# REASONS GIVEN BY MICHIGAN MANUFACTURERS FOR POSSIBLE RELOCATION OR EXPANSION AT NEW LOCATIONS

(Percentage of Employment Represented)

Cited as advantages of possible new locations;	Among Michigan Firms Considering Relocation	Among Michigan Firms Considering Expansion
Labor costs, unionism Taxes. Taxes. Lower costs—not specific. Proximity to customers, marketing facilities. Availability of plant site, local concessions. Proximity to materials. Industrial climate Labor supply. Other	20 4 18 10 *	23% 8 3 49 10 2 1 +
Total	†	†

<sup>\*</sup> Less than ½ per cent.
† Total differs from 100 per cent because some respondents mentioned several advantages, while others (having no specific location in mind as yet) did not mention any.
‡ These questions were asked of 23 per cent of Michigan manufacturers who said that they definitely, probably, or possibly might relocate and of 29 per cent who said they would or might expand in other areas.

Resmini estimates different identification within the neoclassical trade models. The industry location depends on the specialization of the territorial unit considered in line with comparative

advantages of location's geography, factor endowments and technology [14],[15]. The researcher posed the large regions and more generally regions with good market access would become particularly attractive production locations and export bases.

Cantwell et al. argues that the main drivers for institutional entrepreneurship are now found in the increasing autonomy of multinational enterprises subsidiaries. Thus multinational enterprises agency derives from more decentralized forms of experimentation in international corporate networks, which competence-creating nodes of new initiatives can co-evolve with local institutions [3].

The results of the survey carried in Polish industrial market by Wolf Nikolaus pointed to a role for both, comparative advantage and access to markets, showing that both statistically and economically the most important factors were the endowment with skilled labor and inter-industry-linkages [23].

The personal interviews are the qualitative information search method. Michael E.Mullis in his study conducted a survey by phone and mail. The company set gained from Fortune 500 companies list [13]. The countries particularities are considered by the enterprises but one of the key issues typical for every location is a need for confidentiality in the collaboration to the community during a realization of the industrial prospect [13]. The Mullis study's results illustrated the typical issues or "real life scenarios" expressed by the industry leaders that the management solves at the every-day basis while negotiating and suffering from the rivalry in the market. Among those reasons the loss of competitive advantage of a strategic new location, impact on real estate costs and alternatives and community's and the politicians' interest are named. The impact on real estate costs and alternatives might tightly be dependant on the country's regulations system's development level and the ambitions of a landlord.

Le Bas and Sierra study is based upon a database on the European patenting activity of the largest multinational firms in France [1],[9].

For the current research planned survey, the authors mark that according to Le Bas and Sierra study's results of, the companies from Denmark, Germany, Norway, Sweden and USA where R&D activities are aimed at monitoring or acquiring competitive advantages which are complementary to those already possessed by the firm (strategy No.3) [5], [9]. Finnish companies in research of 2002 rather follow the strategy characterized by Kuemmerle as "home-base-exploiting FDI" in R&D (strategy No.2) [8]. In terms of policy implications it could noted that what happens in the home country stays very important. The advantages built at home are at the core of strategies No. 2 and No.3. This clearly shows the national system of innovation (in particular the system of academic research) should strengthen the technological advantages of local firms and enables them to succeed their location abroad. This, how the companies follow the marked strategies by nationality the authors could partly check within the questionnaire planned.

## 3. Results and Discussion (M\_Heading1)

Before the authors introduce the main results of the research, they point at the **discussion: what is** the suggested approach to raise the response rate of the chosen survey method (online survey)?

# 3.1. This Is Hypothesis: Latvia does not use its advantageous location effectively

Latvia has economically advantageous geographical location linking large and powerful countries investors like Russia and Scandinavian states block. Latvia could cumulate all its force on servicing these big neighbors, but it does not. For this purpose it must have strong professional specialists and

well developed infrastructure. There is an evident misbalance in the Latvian real estate market and inland industry locations' characteristics often do not require the long-term plans of the operating companies [16].

According to the previous research session results, within the recent years, the rates of the Latvian gross domestic product (GDP) and the Latvian retail turnover concentrated in Riga keep at the same level – 55% and 60% correspondingly. Compared to the rest of the Latvian territory, the retail turnover per one resident of the capital was more than 3 times higher. Capital city's retail property saturation would overlap the 900 sq.m level per 1,000 inhabitants in 2015 [17], [18][19]. Two years ago the Latvian modern industrial real property stock accounted 0,45 million square meters (24 times less than in Sweden and 8 times less than in Czech), that is 2900 euro of the industrial capacities per 1 sq.m of the modern industrial premises (that is 3 times higher than in Sweden and 7 times less than in Czech), so the authors concluded, that that Latvia may process the manufacturing industry development following the Czech or Swedish scenarios, which mean the considerable increase of the manufacturing branch efficiency approximately 3 to 6 times in Latvia, the authors allow that the modern industrial real property market does not need any further growth under the chosen scenarios. Knowing the modern industrial real estate property stock of the comparable countries (in the experimental investigation – Czech Republic and Sweden), three scenarios on the local market stock potential (in the research – Latvian modern industrial real estate property market segment potential) and presumptive manufacturing capacity are worked out (referring to Table 1) [22].

**Table 1.** Collation of the 2035 forecast and 2009 statistics. The Latvian case results to times [22].

Ratio\ Country scenario		2	3
Agriculture, gross value added	0.43	0.78	0.60
Manufacturing, gross value added	2.36	1.00	1.67
Manufacturing percent from GDP in 2020	0.54	0.38	0.46
Modern industrial real estate property stock	0.41	1.71	0.55
Manufacturing gross value added per 1 sq.m of modern industrial property	5.75	0.32	3.04

Low market capacities, limitations of the locations' physical and strategic development characteristics, protective tax policy and recent brain exodus create threats for attracting foreign businesses. Companies rather use lower cost development countries and the location in the Latvia's neighboring countries.

The authors considered "competition effect", "local market particularities" and "investment environment", "locational strategy" and "multinational cooperation" [9], [21], [24].

The authors connect two general blocks: regional economic planning within a certain region and real estate business as a support function to industrial market development.

Regional economic planning (see the VASAB model example in Fig.3) is often directed towards stimulating commercial and industrial environment of a region. Assessing the regional spatial structure and planning, the main goal of it is to coordinate and ensure with the guidelines in land use, infrastructure development, transport, services and economy development and other sectors' and interests' maintenance [1].

When looking at the business allocating and local market development plans issue the authors categorize it in three types of collaboration: 1) industry and agriculture; 2) trade and services; 3) construction as a support and interaction branch.

The strategic decisions on the territory development meeting the commercial needs what to build and for what purposes or following rather agricultural capacities searching on where exactly and what cropper to grow effect the real estate market expansion opportunities in the aspect of location availability and location investment attractiveness.

The Baltic Sea Region namely includes the following areas: EU member states Denmark, Estonia, Finland, Latvia, Lithuania, Poland, Sweden and northern parts of Germany, as well as the neighboring countries of Norway, north-west regions of Russia and Belarus.

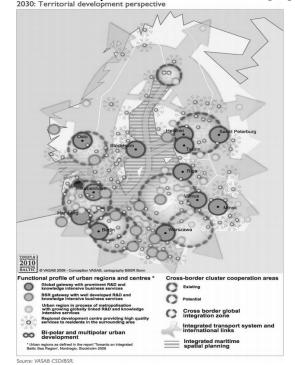


Figure 3. The BSR cooperation scheme until 2030 [25],[29].

#### 2.2. Industry location assessment criteria

It is considered to outline four tasks of the survey: 1) to determine the influence of a level and conditions of the market development; 2) to define threats in a territory acquisition; 3) to analyze if the current locations match the strategic plans of the enterprise; 4) give a resume on the R&D strategy type when working in Latvia.

Formulating the right location criteria might be influenced by a choice of headquarter, collaboration perspectives with the local authorities, the development plans of the administrative territory or location correspondence to the manufacture's requirements. The authors examine this part of a research by a set of criteria given in Table 2.

**Table 2.** The planned survey question list (authors results)

Grade	Type/ Question
A	Statistics
1	Answer date
2	Company Name
3	The Contact person data:
a	Name, Surname
b	Occupation
	Phone number (GSM number in
c	priority)
d	e-mail
В	Specialty questions
	When did the company enter the
4	market?
	Is the administration office placed
	in the same territory with
5	industrial premises in Latvia?
	How many industry locations does
6	the company have in Latvia?
	Is current location/ locations the
	first from the beginning of
	company' start or the company
	has already relocated the business
7	in Latvia?
	Did the company follow the
	expansion of the land plot/ any of
8	the land plots?
	Please give the characteristics of
	the occupied industry location/
	locations (if there are several) and
9	premises in Latvia:
	total land plot area (including the
a	area under the buildings), ha
	gross floor area of the occupied
	premises of industrial premises,
b	square meters
	gross floor area of the occupied
	premises of the Company's
С	administration square meters
10	The market attractiveness criteria
10	when company entered the market
a	Advantageous geopolitical location
b	Attractive tax policy

c	Low level of rivalry
	Low price level of the staple in
d	Latvia
	Close collaboration with local
	scientists in the company's R&D
e	activities
	Beneficial credit terms and
f	conditions for the industrial business
	The advance to use the local natural
g	resources for the manufacture
	Latvia has appropriate ecological
h	conditions
i	Availability of labor (skills, supply)
j	Low labor costs
	Well-developed transport
k	infrastructure
	The company has full manufacturing
	process organized in Latvia,
	including its realization in local
1	market
	What factor predetermined the
	What factor predetermined the
	genuine decision on a choice of
11	-
11	genuine decision on a choice of
<b>11</b>	genuine decision on a choice of location
	genuine decision on a choice of location  Nothing but the Headquarters'
	genuine decision on a choice of location  Nothing but the Headquarters' decision
a	genuine decision on a choice of location  Nothing but the Headquarters' decision  Cooperation capabilities with a
a	genuine decision on a choice of location  Nothing but the Headquarters' decision  Cooperation capabilities with a certain community
a b	genuine decision on a choice of location  Nothing but the Headquarters' decision  Cooperation capabilities with a certain community  The strategic development plans of
a b	genuine decision on a choice of location  Nothing but the Headquarters' decision  Cooperation capabilities with a certain community  The strategic development plans of the current administrative territory
a b c	genuine decision on a choice of location  Nothing but the Headquarters' decision  Cooperation capabilities with a certain community  The strategic development plans of the current administrative territory  The best match and fit to our
a b c	genuine decision on a choice of location  Nothing but the Headquarters' decision  Cooperation capabilities with a certain community  The strategic development plans of the current administrative territory  The best match and fit to our production needs
a b c	genuine decision on a choice of location  Nothing but the Headquarters' decision  Cooperation capabilities with a certain community  The strategic development plans of the current administrative territory  The best match and fit to our production needs  Close to the local partners
a b c d e	genuine decision on a choice of location  Nothing but the Headquarters' decision  Cooperation capabilities with a certain community  The strategic development plans of the current administrative territory  The best match and fit to our production needs  Close to the local partners  Close to the customers supply
a b c d e	genuine decision on a choice of location  Nothing but the Headquarters' decision  Cooperation capabilities with a certain community  The strategic development plans of the current administrative territory  The best match and fit to our production needs  Close to the local partners  Close to the customers supply market
a b c d e f	genuine decision on a choice of location  Nothing but the Headquarters' decision  Cooperation capabilities with a certain community  The strategic development plans of the current administrative territory  The best match and fit to our production needs  Close to the local partners  Close to the customers supply market  None of the above-mentioned criteria  The Company's plans for the next
a b c d e	genuine decision on a choice of location  Nothing but the Headquarters' decision  Cooperation capabilities with a certain community  The strategic development plans of the current administrative territory  The best match and fit to our production needs  Close to the local partners  Close to the customers supply market  None of the above-mentioned criteria  The Company's plans for the next five (5) years in Latvia
a b c d e f	genuine decision on a choice of location  Nothing but the Headquarters' decision  Cooperation capabilities with a certain community  The strategic development plans of the current administrative territory  The best match and fit to our production needs  Close to the local partners  Close to the customers supply market  None of the above-mentioned criteria  The Company's plans for the next
a b c d e f g 12	genuine decision on a choice of location  Nothing but the Headquarters' decision  Cooperation capabilities with a certain community  The strategic development plans of the current administrative territory  The best match and fit to our production needs  Close to the local partners  Close to the customers supply market  None of the above-mentioned criteria  The Company's plans for the next five (5) years in Latvia  Expansion of the manufacture  The manufacture's assets movement
a b c d e f g 12	genuine decision on a choice of location  Nothing but the Headquarters' decision  Cooperation capabilities with a certain community  The strategic development plans of the current administrative territory  The best match and fit to our production needs  Close to the local partners  Close to the customers supply market  None of the above-mentioned criteria  The Company's plans for the next five (5) years in Latvia  Expansion of the manufacture

d	Cease manufacture in Latvia
e	Another answer
	If the previous question results as
	"Cease manufacture in Latvia"
13	please name the reason
	Does the occupied land plot and
	premises acquire the company's
	requirements for the nearest five
14	(5) years?
	The physical characteristics
a	(parameters) of the land plot
b	The conditions of the premises
С	The current utility system
	Transport infrastructure within 1 km
d	radius
	What are the planned territory
	and premises changes for the
15	nearest 5 years
	the company plans to move the
	industrial premises to another
a	location in Latvia
	the company plans to move the
	administration premises to another
b	location in Latvia
	Please give the characteristics of
	the planned industry location/
	locations (if there are several) and
16	premises in the future 5 years
	total land plot area (including the
a	area under the buildings), ha
	gross floor area of the occupied
	premises of industrial premises,
b	square meters
	gross floor area of the occupied
	premises of the Company's
c	administration square meters
	Does the company's management
	make plan the business activity in
	Latvia for longer period from +5
	to 10 years (2017-2022)? if the
	answer is "No", please give the
17	reasons

	The current market attractiveness
18	criteria
a	Advantageous geopolitical location
b	Attractive tax policy
c	Low level of rivalry
	Low price level of the staple in
d	Latvia
	Close collaboration with local
	scientists in the company's R&D
e	activities
	Beneficial credit terms and
f	conditions for the industrial business
	The advance to use the local natural
g	resources for the manufacture
	Latvia has appropriate ecological
h	conditions
i	Availability of labor (skills, supply)
j	Low labor costs
	Well-developed transport
k	infrastructure
	The company has full manufacturing
	process organized in Latvia,
	including its realization in local
1	market
С	Corporative identity of the Company
15	The Company's status in Latvia
a	Headquarter
b	Subsidiary
	Did the Company survive the
16	market and acquisition?
	What is the Company's turnover
17	in Latvia in 2011, EURO
	The Company headquarters'
18	country location
a	Belarus
b	Denmark
c	Estonia
d	Finland
e	Germany
f	Latvia
g	Lithuania
h	Norway

	T
i	Russia
j	Poland
k	Sweden
1	USA
m	Another answer
	The city location of the
19	Company's headquarter
a	Capital city
b	outside the city capital
	The subsidiary/subsidiaries'
20	country location
a	Belarus
b	Denmark
С	Estonia
d	Finland
e	Germany
f	Latvia
g	Lithuania
h	Norway
i	Russia
j	Poland
k	Sweden
1	USA
m	Another answer
	The city location/locations of the
	Company's subsidiary/
21	subsidiaries
a	Capital city
b	outside the city capital
	The Corporation's business
22	activities' markets in 2012
a	Belarus
b	Denmark
С	Estonia
d	Finland
e	Germany
	<del>-</del>

_	
f	Latvia
g	Lithuania
h	Norway
i	Russia
j	Poland
k	Sweden
1	USA
	The Latvian subsidiary's business
23	activities' markets in 2012
a	Belarus
b	Denmark
c	Estonia
d	Finland
e	Germany
f	Latvia
g	Lithuania
h	Norway
i	Russia
j	Poland
k	Sweden
1	USA
D	R&D strategy
	What is the size of the Corporate
	investment in Research and
24	Development in 2011, EURO
a	Total investment size, of which
b	in Baltic Sea Region
c	in Latvia
	What development dynamics for
	the investments in Research and
	<b>Development the Corporate plans</b>
25	for the next 5 years, in percents?
a	Total investment size, of which
b	in Baltic Sea Region
c	in Latvia

The authors' expectations on the answers to the remarkable questions are the following:

- 1. Question 4. As the major database set is of the leading companies, the authors expect the major answers would be within the last one or two decades.
- 2. Question 5. The administration office probably will be located in the same territory with local industrial premises.

- 3. Questions 10 and 18. The authors assume that "Latvia's advantageous geopolitical location" together with and "proximity to the materials" might be most highly valued from the rest. The lowest rates to the question 10 could get the answers "Attractive tax policy" and "The company has full manufacturing process organized in Latvia, including its realization in local market" to the question 18. The authors expect the most positive answer on the companies' careful and tight collaboration with the local communities, and low support from the local side and local tax legislation, poor percentage of the local forces use in the corporation's R&D activities, certain collaboration with local business units with a strong orientation on the further market outlets outside Latvia (wood manufacture, food products lines).
- 4. Question 14. The most "No" answers could get the characteristics of the premises due to certain limitations of being in industrial parks or taking the old factories building, the land plot due to the land plot physical limitations or connection to the road and distribution channels, and transport infrastructure due to still low quality of the roads connections in Latvia and possibly far proximity to the supply markets or materials.
- 5. Questions 15 and 17. According to the stagnation in market the most probably the companies do not plan any changes for the nearest five years, but could possibly expect the development for the longer time period.
- 6. Question 16. M&A is rather new way of business in Latvia, but became rather popular in the last decade due to local companies assets limitations and often bankruptcy.
- 7. Question 19. If following the Latvian example, the Companies headquarters might mostly be located in the capital cities.
- 8. Questions 18 and 20. The answers would be close to the FDI share structure chart for Latvia (see Fig.4).
- 9. Questions 24 and 25. The answer partly is given at the point 3 above.

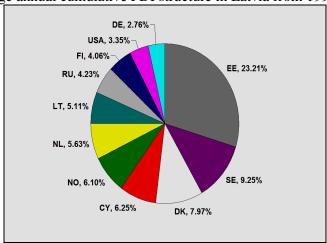


Figure 4. An average annual cumulative FDI structure in Latvia from 1992-2009 [21], [26], [27]

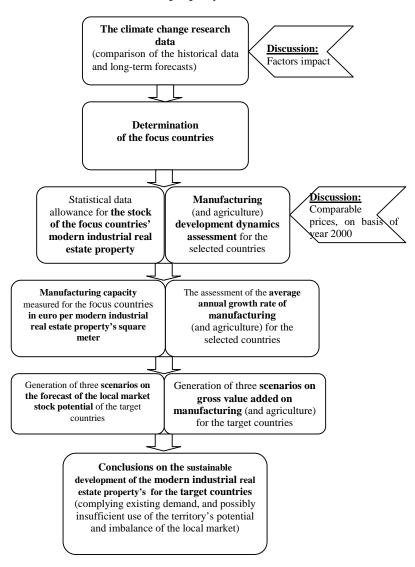
# 2.3. The sustainable development model for the modern industrial real estate property

The authors introduce the sustainable development model for the modern industrial real estate property on the basis of the climate change analysis detecting the comparable focus countries

territories for the further industrial property stock assessment by the fact of the local market's misbalance assumption (see Fig. 5). Authors relied on the ENSEMBLES project, a scientific prediction system for climate change as one of the options with multidimensional calculations' results in global and regional Earth System models, where the base of the meteorological research data obtained from the member countries has been adjusted by the unified method with high resolution [20],[18].

The main idea and processes of the research presented in Figure 5 with the purpose to further prove for other countries forecasts and editing and improving the model by adjusting the other factors and ratios.

Figure 5. the authors' proposed sustainable development model for the modern industrial real estate property [20]



The bullets mark the discussion and scope for the further adjustment:

1) Discussion: factors influence means the invitation for the specialists of the environment research scope to measure the relevance and necessity to add more factors of the climate change that possibly may change the results.

2) Discussion: comparative prices year 2000 = 100. The authors present the part that the system and dynamic row's analysis is carried by applying the comparison approach method considering the official statistics available and comparative [20],[22].

According to the research results already mentioned in chapter III (A) Latvia may process the manufacturing industry development following the Czech or Swedish scenarios, which mean the considerable increase of the manufacturing branch efficiency approximately 3 to 6 times in Latvia, the authors allow that the modern industrial real property market does not need any further growth under the chosen scenarios [22].

#### 3. Conclusions

The Paper is a message to professional critical view and assessment on the model and the questionnaire.

The author highlights the following issues: the role of the market development stage and conditions; the main obstacles in the location choosing and territory's planning and management, the companies' strategic plans.

It is considered to outline four tasks of the survey: 1) to determine the influence of a level and conditions of the market development; 2) to define threats in a territory acquisition; 3) to analyze if the current locations match the strategic plans of the enterprise; 4) give a resume on the R&D strategy type when working in Latvia.

The research has the main hypothesis: Latvia does not use its advantageous location effectively. This is supported by the previous researches' results presented in the Paper. From the pointed expectations on the answers the one may resume that the hypothesis is expected to be one of the major conclusions from the planned survey that would show that the location and premises characteristics could not perfectly fit the requirements of the current industrial market leaders.

The authors have pessimistic expectation on the response rate to the online survey due to limitations in direct contact information, fast changing market causing the bankruptcy of the current businesses in the short time period and possible low business interest to the survey or low degree of belief to the results data as it is typical for the local market. However, the authors think online survey might be the most efficient way of controlling the answers of a large quantity of the database set in a short time period. By searching for the direct contacts through personal contacts database and adding it using the online business networks or database of the marketing companies, as well as thinking over the planned results and introducing the main questions at the start of the interview to get the interest and must to have reasons to persuade the managers to answer the questionnaire, the authors believe to rise the response rate level up to 50 per cent or even more.

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# **Conflict of Interest**

The authors declare no conflict of interest.

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