Methodological and Practical Aspects of Marketing Research for Transportation and Logistics Services
to Determine the Parameters of Regional Logistics Centers

ANNOTATION. This article discusses the methodological and practical aspects of Marketing Research to determine the parameters of regional logistics centers. Fragments of the Research of the Regional Transport and Logistics Services Markets, conducted by the Market Guide Agency in the 2010–2014, are presented in this article.

KEY WORDS. Marketing Research, market for transport and logistics services, freight traffic analysis, warehouse infrastructure, the parameters of the logistics center, the degree of reliability of the results.

Rationale

Today, the market segment of transport and logistics services, offering traditional services in transportation and warehouse handling of cargo traffic in Russia, is represented mainly by a large number of small and medium-sized businesses. In its turn, the 3PL segment of integrated logistics services is represented mainly by leading international companies. Despite the crisis in the economy and significant decline in demand, the problem of retaining market positions, and also more in-depth development of the market is relevant for the players of both segments of the logistics market.

According to the experts' preliminary estimates, by 2015 the total value of the market of transport and logistics services in Russia will have to increase more than twice – from USD 48.5 billion to USD 115 billion [5]. At the same time, more than 60% of this amount will accrue to Moscow and the Moscow region, as well as St. Petersburg and the Leningrad region.

The Russian logistics market is one of the most dynamic and fastest growing ones. Before 2013 the annual market growth was equal to 15–30% (according to different sources). After the imposition of sanctions against the Russian Federation and the economic downturn, the market growth of logistics services has slowed significantly and in the short term it is expected to be no more than 5% per year.

Despite the objective problems of the development of contract logistics, one of the most important trends is the fact that the market of transport and logistics services in Russia is de-

veloping from the center to the regions, but it is not as fast as we would like. At this stage the decrease in demand from the commercial and industrial companies in the regions interferes with dissemination of the contract logistics. Experts suppose, that in addition to objective reasons, low demand is explained by the lack of understanding of the benefits of the transfer of logistics functions to specialized companies on the part of the management of regional companies, as well as by the reluctance of cargo owners to use the services of the third parties. Conscious rejection of services of logistics operator is the result of several factors:

1. Absence of actual 3PL companies on the market, which cover the entire territory of the country.
2. Unwillingness to change their technological chain.
3. Fear to give commercial information to logistics operator.
4. Work on the principle: "All I have, I deliver, load etc. by myself."

Before the crisis, a major barrier to the growth of the logistics market was the lack of quality infrastructure in the regions. Today, the reduced demand has been added. Nevertheless, some logistics operators are considering the crisis to be not only the time of hardships, but also the time for new opportunities. While competitors reduce their turnovers or leave the market, a number of players are working out the logistics market questions as to strengthen their position in the market and capture new territories with the lowest cost. To do this, first of all, you must understand where new facilities and logistics in-

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frastructure will be needed in the medium term, and processing of what range of goods they plan to specialize.

Before the imposition of sanctions and economic recession, major logistics operators had their own marketing and analytical services, and owned basic information about customers, current volumes and structure of freight traffic in the target regions of the country, but now the situation has changed significantly. Now it is difficult to get objective information about the current market situation and the directions of cargo flows changes in the medium term without a special marketing research.

Parameters of Logistics Infrastructure Objects Which are Defined in the Process of Marketing Research

Let's consider the aggregate scheme of implementation of the regional logistics project (Figure 1). We see that the study of transport and logistics services is carried out at stage 2. In the process of marketing research the following basic parameters of regional facilities and logistics infrastructure (logistics center) are identified:

- recommended placing of the object on the basis of geography of the study;
- recommended area (m^2) based on the revealed volume of traffic and the demand for logistics services;
- format of logistics center (percentage of the storage areas) – dry warehouse, low temperature warehouse, etc.;
- recommended assortment matrix of logistics services;
- projected sales volumes of logistics services (in rubles) quarterly by years;
- recommended tariffs for logistics services.

Figure 1.
Aggregate stages
of implementation
of regional logistics
project

1. Shaping the idea to create a regional logistics center.

2. Marketing research of traffic flows and logistics services consumption in the region.

3. Development of a feasibility study/ business plan of a regional logistics project.

4. Submission of the feasibility study/ business plan to a bank/investor.

5. Receiving the funds to implement a regional logistics project.

Marketing options, identified in quantitative terms, are the basis for a logistics facility design, and are used to generate the revenue part of the financial model of the feasibility study the logistics of the project taking into account the market and institutional uncertainties.

Stages of Marketing Research for Transportation and Logistics Services

In the process of the research of the regional transport and logistics market it is necessary to:

1. Conduct comprehensive analysis of the logistics market, evaluate its capacity in kind terms (in tons) and in value terms (in rubles), identify the effect of seasonality factor, implement market segmentation.
2. Implement competitive market analysis of logistics services in the region, identify the main players and determine their market shares.
3. Determine the interest of major groups of potential customers in various kinds of logistics services.
4. Estimate the volumes (V) of the potential demand for various types of logistics services by basic services (warehousing, transportation, packaging, integrated logistics services, etc.) and by consumer groups.
5. Estimate the ranges of tariffs (P), based on which potential users of logistics services are ready to use them.
6. Estimate the rate of growth (%) and the forecast of the development of the logistics services market in the region in the medium term (until 2020).

To carry out the work mentioned, practice of the market research for transportation and logistics services includes the secondary and primary methods of data collection and analysis. Secondary research (Desk Research) is an "armchair" way of collecting and processing of secondary data about the logistics market. Sources of secondary data include:

- Federal State Statistics Service (Rosstat) including territorial offices;
- Database of the Federal Customs Service (FCS);
- Ministry of Transport of the Russian Federation;
- Ministry of Energy of the Russian Federation;
- Mass media: newspapers, magazines, newsletters;
- Internet resources;
- Databases of JSC "Russian Railways" on railroad cargo transportation;
- Results of previous studies on the markets of logistics services and freight flows in Russia;

Table 1.

Methods of marketing research: cost, reliability, timing

Marketing research method	Cost, Euro	Degree of data reliability, %	Continuance of study, calendar months
Secondary marketing research (Desk Research)	Up to 3,000	Up to 50%	Up to 1.0
Primary marketing research (Field Work Research): expert and in-depth face-to-face interviews	3,000–25,000	75–80%	1.5–2.0
Combined market research (simultaneous use of primary and secondary research methods)	Over 15,000	More than 85%	2.5–3.5

- Results of the previously completed projects, including the investment projects to develop transport and logistics centers in Russia.

Primary research (Field Work Research) suggests carrying out expert and in-depth personal interviews (face-to-face method) with market players of logistics services who are current and potential consumers of logistics services, logistics operators, market experts, etc.

Table 1 shows the methods of marketing research vs. cost, data reliability and continuance of study. As you can see from the data presented in Table 1, the degree of data reliability of the marketing research is a very important parameter that depends on the applied research methods, which have various cost and continuance. Ultimately the selected research methods define the output error and, as a consequence, the level of risks when making decisions regarding the logistics project implementation.

In practice, the degree of data reliability of the marketing research cannot be 100%, since there are no sure objective sources of information. The highest degree of reliability (over 85%) is achieved by means of the combined use of secondary and primary research methods, i.e. when the analysis of statistical data of Rosstat database, databases of freight flows from JSC "Russian Railways", FCS, specialized Internet resources, etc., are supplemented by expert and in-depth interviews with market players (logistics companies) and consumers of logistics services, as well as with the data on measurements of the target volume and structure of freight flows (if required).

Use of primary and secondary sources of information in the course of the identification, analysis and validation of the market parameters gives the opportunity to achieve 10–15% error in the assessment of cargo flows, the need for logistics services and the necessary elements of logistics infrastructure that is considered to be an acceptable statistical norm. According to the statistics from the studies conducted by Market Guide Agency in 2010–2014, in order to achieve the highest level of validity of the results, when conducting interviews, the sampling of expert interviews with market players of logistics services should constitute at least 150–200 interviews.

Methodological Particularities of the Logistics Services Market Research

In the process of interpreting the results of the studies of the transport and logistics services market, there are a number of methodological features that have to be taken into account during the collection and analysis of the marketing data:

I. Data bias in state and departmental statistics
Most generally, to assess the market capacity in kind or value terms it is necessary to apply the formula [1], which requires three parameters: the production volume of goods or services, export and import volumes:

$$E = Pr + Imp - Exp,$$

where E — market capacity;
Pr — volume of goods produced or services rendered;
Imp — volume of imported goods or services;
Exp — volume of exported goods or services.

As we know, the data of the Federal State Statistics Service (Rosstat) do not present the real picture on the production and sale of goods and services. Under current law, only large companies, that are open joint stock companies, should make a mandatory report on the volume of work performed or services rendered. As to market of transport and logistics services, the vast majority of the market participants are limited liability companies, and therefore they need not provide the data on the volume of the services rendered to the Federal State Statistics Service, which results in the underestimation of the market.

It often happens that when describing the supplied goods, both imports and exports, in the database of the FCS of Russia (field code G31_1) and in the database of JSC "Russian Railways", there is no detailed description of the goods, making it difficult to assess the structure and nomenclature of the goods transported. The situation is greatly complicated by the fact that there is no statistical information about one of the most popular modes of transport — motor vehicles.

Thus, it is difficult to estimate objectively the parameters of transport and logistics services taking into consideration the basis of the state and departmental statistics and information from open sources only. The highest degree of reliability, which is achieved by analyzing the secondary data in Russia, never exceeds 50%. To improve the reliability it is necessary to use the primary method of collecting and analyzing marketing data either.

II. Methodical unreadiness of consumers and players of the transportation and logistics services market to use comprehensive tools to conduct expert interviews

In the practice of the research, there are various levels of methodological readiness of the market participants to conduct comprehensive marketing research, which is defined by the ability to use quite successfully complex and detailed tools (questionnaires) in the study, and it allows to obtain voluminous and detailed dataset from respondents, that after statistical processing[1]

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[1] For data processing and analysis we use SPSS Statistics (Statistical Package for the Social Sciences). This is software for statistical processing of data intended for applied social and economic research.

makes possible a fairly objective picture of the volume and the structure of demand, level of competition, price elasticity of demand, etc.

In the course of research in a number of industries, which include, for example, coatings industry, as well as other sectors of chemical complex, the respondents usually have no difficulties to use bar graph issues, ratings, building percentage structures, open questions, etc. In surveys of the market participants of the transport and logistics services, especially when the questions are focused on studying of current and future demand, as well as current and forecast tariffs, it is extremely difficult to obtain information expressed quantitatively.

In this regard, at the current stage, fairly simple tools can be effectively used in the study of regional markets of transport and logistics services. However, the smallest questionnaire required for interviewing the customers of logistics services includes questions to help you determine:

1. Nomenclature and the average annual volume of goods that are transported by the company (food, household chemicals, forest products, chemicals and petrochemicals, etc.).
2. The proportion of goods to be stored/to be warehoused/to be transshipped in the total volume of cargo.
3. The current tariffs for all types of logistics services, which are used by the company (freight, forwarding, rental of warehouse space, cargo consolidation, custody, packing and repacking of goods, labeling, etc.).
4. The share of imports in the total cargo flow of the company.
5. The main routes and modes of transport for the transportation of goods.
6. Forecast of change in cargo traffic in 2020 perspective.
7. Availability of own transport and its types (load capacity, standard/refrigerator).
8. Area and temperature, which are required to store the goods.
9. The average term of goods storage in the temporary-storage warehouses.
10. The number of the items that are stored in the warehouse monthly.
11. Seasonal changes in cargo flow.
12. The determining factors in deciding whether or not to use the services of logistics operator (convenient geographical location, reasonable price, high level of technical equipment of the center, which will ensure the safety of cargo, etc.).

III. Specific features in the calculation of the parameters of the transport and logistics services market

Specificity of cargo transportation, one of the most popular logistics services, imposes certain

features on the calculation of the market capacity: the export share of total volume of production and imports is not deducted, as in the traditional calculation formula mentioned above, as far as the exported products falls under the function of "cargo transportation" and should be transported at least once. For example, we suggest the order of calculating the market capacity to transport the hazardous cargo in Russia in 2010 (Table 2).

In 2010 the Russian market capacity of transportation by all modes of transport was: 420 million tons for hazardous cargo, 385–395 million tons for petroleum products.

Determination of the Demand for Transport and Logistics Services in the Region

One of the main purposes of market research of transportation and logistics services is to determine the demand for services by different groups of consumers. The main consumer groups are:
- vertically integrated companies (the VICs);
- building holdings and companies;
- petrochemical plants;
- oil-and-gas service companies;
- other manufacturing enterprises (machine-building, production of electrical and building materials, food, textile and other industries);
- independent retailers and other businesses;
- retail chains (including those who are planning to start operating in the region);
- other consumers.

During the analysis of the statistical data, the demand for different types of logistics services, adjusted to the results of the expert surveys, is determined. The example, given below, shows the demand for transport and logistics services, which was identified during the market research, to serve the cargo handling of materials and equipment in the Ural Federal District[2] (the UFO) — Figure 2.

At the end of 2012 the total demand for transport and logistics services in the UFO by explored segment was about 556 million tons. In 2012 the largest share of coverage (considering the all-Russian structure) fell on transportation services and forwarding (1,2 PL) was about 495 million tons, including 61 million tons for the foreign trade services (import-export). Estimated demand for management logistics was about 17 million tons, demand for warehousing and storage was about 44 million tons.

Table 2.

Data for the calculation of total market capacity of the hazardous cargo transportation by all modes of transport for the 2010, million tons

No.	Indicator	Total amount of hazardous products	Including oil products
1	Manufacturing	340	240
2	Import	80	45
3	Export	–	100–110
4	Market capacity (1+2+3)	420	385–395

Figure 2.
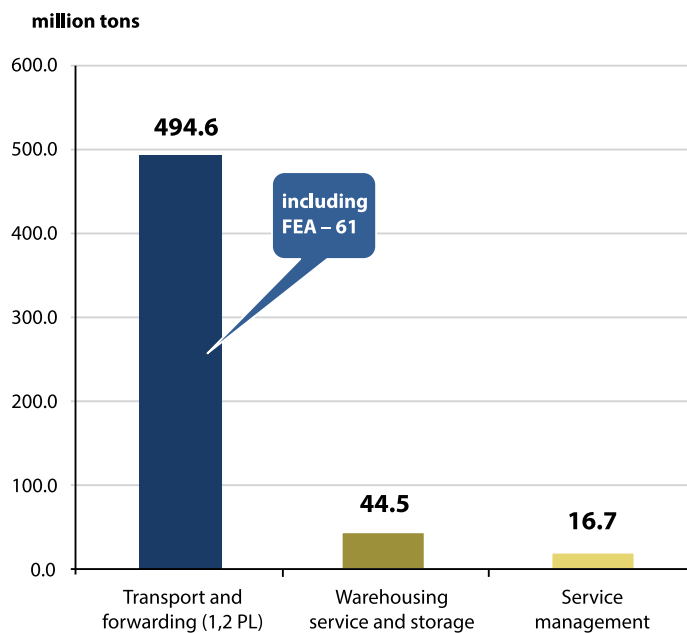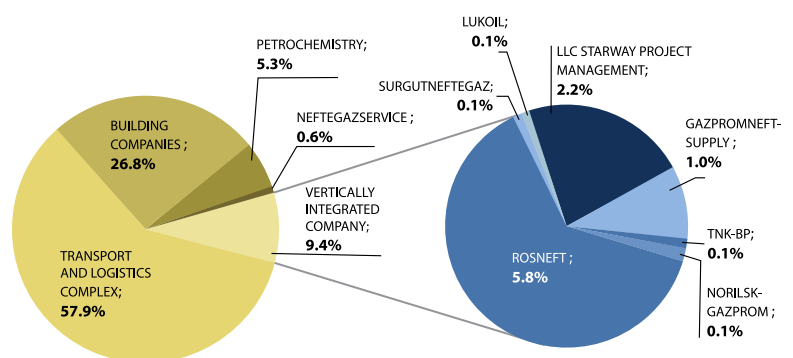Demand for transport and logistics services in the UFO in 2012

Figure 3.
The demand for transportation and logistics services (excluding crude oil, petroleum products, hydrocarbon gases, broad fractions of light hydrocarbons) in the SFO in 2012

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[2] The following segments are taken into account in the assessment of demand: VICs, building companies, petrochemical plants, oil-and-gas service companies.

Figure 4.
Investment projects in the UFO

Determining the Structure of the Demand for Transport and Logistics Services

In addition to assessing the total capacity of the transport and logistics services market in the region, it is important to determine its structure. As an example, the structure of the demand[3] for transport and logistics services in the Siberian Federal District (the SFO) is given (Figure 3).

In 2012 building companies showed the greatest demand for transport and logistics services in the Siberian Federal District (about 27%). The Top-3 among the VICs in terms of the demand for logistics services to deliver materials and technical resources were: Rosneft (Vankorneft), TNK-BP (Starway Project Management) and Gazprom-neft–Snabzheniye: about 6%, 2% and 1% respectively. Significant proportion of the demand (58%) fell on transport and logistics companies.

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[3] The following segments are taken into account in the assessment of demand: VICs, building companies, petrochemical plants, oil-and-gas service companies.

Determination of "Growing Points" in the Market of Transport and Logistics Services

Key issue in the study of transport and logistics services in addition to assessing the current demand and its structure is to determine the "growing points", which will provide an increase in demand for transport and logistics services in the medium term (5–7 years). To identify the "growing points" a detailed analysis of priority of investment projects is carried out in the region. As an illustrative example, we present the analysis of priority projects to be implemented in the UFO. The list includes 25 projects in six regions of the Urals Federal District, worth about 1.5 trillion rubles (Figure 4).

Priority Projects determine the specialization of the UFO as a territory of diversified development of metallurgical and mining production, refining and petrochemicals, as well as the implementation of complex investment projects, including the creation of innovative technology parks. In accordance with the plans for the development of investment projects the UFO "growing points" in the transportation and logistics services will be: Yamal-Nenets Autonomous Area, Khanty-Mansi Autonomous Area, Tyumen region.

It is planned in Yamal-Nenets Autonomous Area: construction of Yamal SPG plant; development of prospective oil and gas fields (Kharasaveyskoe, Bovanenkovskoe, Novoportovskoe, Tambeyskoe, Messoyakhskoe); construction of major infrastructure projects: Kharasavey port, the port of Sabetta, railroad branch to Sabetta; creation of a new generation of gas transportation system under the extensive renovation of the Unified Gas Supply System of Russia (Figure 5).

The largest investment projects in the Oil and Gas sector in Khanty-Mansi Autonomous Area during the period from 2012 to 2020 is projects of further development and construction of the following licensed areas:

- Priobskoye, Prirazlomnoe, Malobalykskoye oilfields (JSC NK Rosneft);
- The southern section of Priobskoye oilfield (JSC Gazprom Neft);
- Samotlor oilfield (OJSC TNK-BP Holding);
- Fedorovsky oilfield (OJSC Surgutneftegas).

In 2011, in the Khanty-Mansi Autonomous Area, openly and officially, 8 new oilfields were put on the state balance according to the data of Rosnedra, including: Hoshiplorskoe and the Logachev oilfields (OJSC Surgutneftegas), Yuzhno-Eityanskoe oilfield (Lukoil Western Siberia), Vostochno-Kamskoe and Yanlotskoe oilfields (Irtysh-Neft). In addition, future projects will appear in the power industry, mining and timber industry complexes.

INVESTMENT PROJECTS OF THE YAMAL-NENETS AUTONOMOUS OKRUG (URAL FEDERAL DISTRICT)

Investment projects	Specification	Commissioning / development period
1. Development of Bovanenkovo field zone: Bovanenkovskoe, Kharasaveyskoe, Krusensternskoe fields	Total annual gas production is expected up to 220 billion cubic meters, gas condensate – up to 4 million tons.	
2. Development of Tambey field zone: North-Tambey, West-Tambey, Tassiskoye, Malijinskoye, South-Tambey and Syadorskoye fields	Total annual gas production is expected up to 65 billion cubic meters, gas condensate – up to 2,8 million tons.	
3. Development of South field zone: Novoportovskoye, Nurminskoye, Malo-Yamalskoye, Rostovtsevskoye, Arkticheskoye, Sredne-Yamalkokoye, Khambateyskoye, Nietinskoye, Kamenomysskoye (land) fields	Total annual gas production is expected up to 30 billion cubic meters, gas condensate – up to 7 million tons.	
4. Construction of LNG plant "Yamal LNG"	LNG production could reach 440,9 million tons; stable gas condensate production could reach 18,9 million tons.	Phase 1 – 2012-2016. Phase 2 – 2013-2017. Phase 3 – 2014-2018.
5. Construction of the pipeline "Zapolyarye-Purpe"	Total length – 488 km; length of supply lines – 1200 km. Rate of flow – up to 45 million tons per year.	Stage 1 – 2013, December. Stage 2 – 2014, December. Stage 3 – 2015, December.
6. Construction of the pipeline "Purpe-Samotlor"	Length – 429 km. Rate of flow – 25-50 million tons per year.	Became operational in 2011, October.
7. Construction of GPP Vyngapurovsky (comprehensive program "Sibur")	Annual APG receiving capacity – up to 2.4 billion cubic meters, with 99% extraction of desired cuts.	2nd half of 2012
8. Construction of Northern Latitudinal Railway	Obskaya – Salekhard – Nadym – Pangody – Novy Urengoy – Korotchaevo	
9. Construction of railways	Bovanenkovo – Kharasavey; Payuta – Novy Port	2015–2030
10. Construction of railways	Korotchaevo – Russkoe – Igarka	2015–2030

SYMBOLS

INDUSTRIAL ZONES, FIELDS

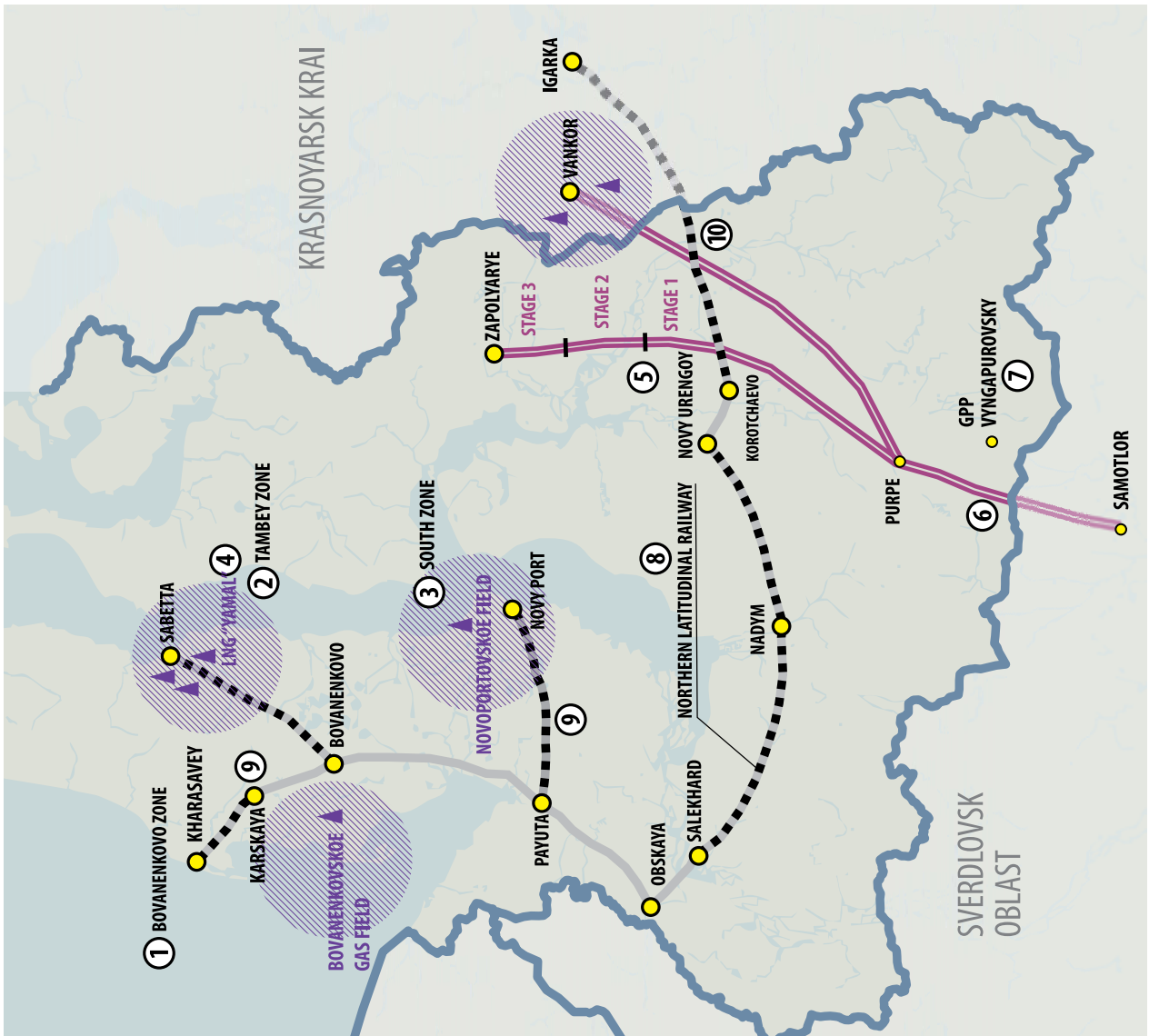PROJECTED RAILWAYS

PIPELINES

Figure 5.
Investment projects in Yamal-Nenets Autonomous Area (UFO)

Analysis of the Warehouse Infrastructure in the Region

The study of the transport and logistics services also includes a detailed analysis of the regional warehouse infrastructure. A good example of this is a map of the Volga Federal District that shows all the basic facilities and storage infrastructure with their basic characteristics: area, class (A, B, C, D), load level (Figure 6). On the basis of Figure 6, we can say that the greatest areas of quality storage facilities (classes A and B) are located in regions such as Nizhny Novgorod, Kazan, the Samara region, which are currently the largest industrial and commercial centers of the Volga Federal District. In the regions bordering the Saratov region, there locate a sufficient number of distribution centers, retail chains, which provide shopping area with the necessary products, including:

- distribution centers of retail chains of Magnit, Auchan, X5 Retail are located in Samara;
- distribution center of X5 Retail is in Kazan;
- distribution centers X5 Retail, M.Video, Magnit are in Nizhny Novgorod.

The above mentioned regions have considerable competition for warehouse operators of the Saratov region, "dragging" a significant part of traffic, especially in the segment of FMCG.

Determination of the Format (the ratio of Storage Areas) of the Object in the Regional Logistics Infrastructure

Based on the identified range and volume of freight traffic, as a result of the market analysis, the format of the logistics center (the ratio of the storage areas of the object in the logistics infrastructure in %) — dry storage, low temperature storage, etc. is defined.

A good example is a ratio of the required areas of FMCG storage in the logistics center on the Sakhalin Island. In accordance with the ratio of the import volume of certain types of goods to the Sakhalin oblast, and due to the necessary storage conditions, you can determine the approximate ratio of storage areas (Table 3).

Table 3.
Distribution of storage areas by temperature regimes (all types of goods)

No.	List of goods subject to warehousing and storage	Conditions of storage	Share in the total volume of storage, %
1	Fish	Freezing storage (−18 °C)	11.1
2	Meat	Freezing storage (−18 °C)	4.5
3	Cement	Common storage	22.3
4	Building materials	Common storage	8.6
5	Household and industrial goods	Common storage	4.7
6	Furniture	Common storage	1.7
7	Canned food	Cold storage (2−4 °C)	0.7
8	Vegetable oil	Common storage	0.3
9	Timber	Common storage	0.3
10	Paper and stationery goods	Common storage	0.2
11	Other	Common storage	0.9
12	Equipment / machinery	Common storage	8.9
13	Alcohol	Common storage	6.2
14	All-mash	Common storage	4.7
15	Flour	Common storage	3.5
16	Drinks, juices	Common storage	2.7
17	Cereals and pasta	Common storage	1.9
18	Sugar	Common storage	1.4
19	Salt	Common storage	1.3
20	Grain	Common storage	1.0
21	Fruit and vegetables	Cold storage (4−6 °C), ventilation	7.4
22	Milk and dairy products	Cold storage (2−4 °C)	5.8

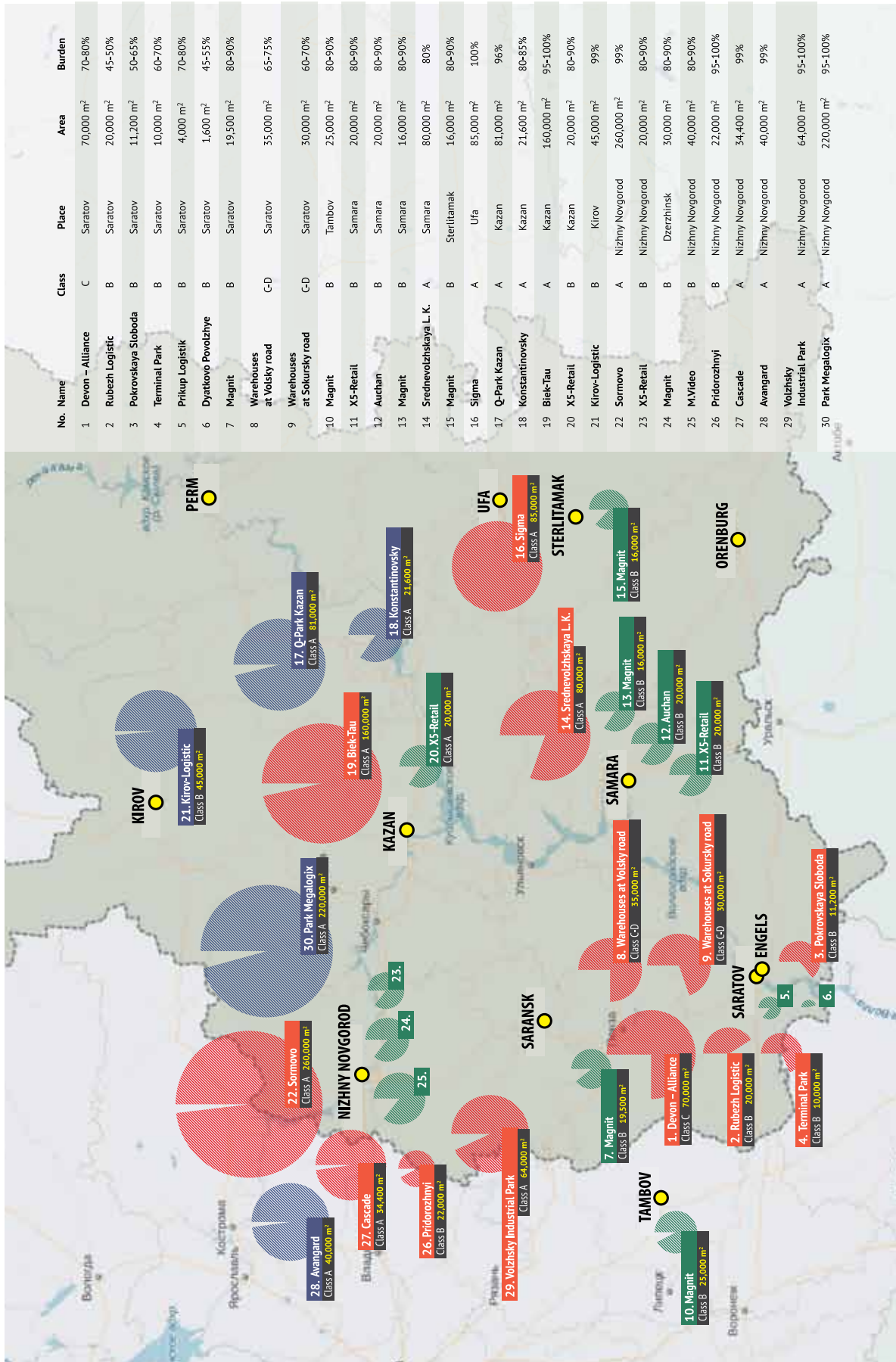| No.	Name	Class	Place	Area	Burden
1	Devon – Alliance	C	Saratov	70,000 m²	70-80%
2	Rubezh Logistic	B	Saratov	20,000 m²	45-50%
3	Pokrovskaya Sloboda	B	Saratov	11,200 m²	50-65%
4	Terminal Park	B	Saratov	10,000 m²	60-70%
5	Prikup Logistik	B	Saratov	4,000 m²	70-80%
6	Dyatkovo Povolzhye	B	Saratov	1,600 m²	45-55%
7	Magnit	B	Saratov	19,500 m²	80-90%
8	Warehouses at Volsky road	C-D	Saratov	35,000 m²	65-75%
9	Warehouses at Sokursky road	C-D	Saratov	30,000 m²	60-70%
10	Magnit	B	Tambov	25,000 m²	80-90%
11	X5-Retail	B	Samara	20,000 m²	80-90%
12	Auchan	B	Samara	20,000 m²	80-90%
13	Magnit	B	Samara	16,000 m²	80-90%
14	Srednevolzhskaya L. K.	A	Samara	80,000 m²	80%
15	Magnit	B	Sterlitamak	16,000 m²	80-90%
16	Sigma	A	Ufa	85,000 m²	100%
17	Q-Park Kazan	A	Kazan	81,000 m²	96%
18	Konstantinovsky	A	Kazan	21,600 m²	80-85%
19	Biek-Tau	A	Kazan	160,000 m²	95-100%
20	X5-Retail	B	Kazan	20,000 m²	80-90%
21	Kirov-Logistic	B	Kirov	45,000 m²	99%
22	Sormovo	A	Nizhny Novgorod	260,000 m²	99%
23	X5-Retail	B	Nizhny Novgorod	20,000 m²	80-90%
24	Magnit	B	Dzerzhinsk	30,000 m²	80-90%
25	M.Video	B	Nizhny Novgorod	40,000 m²	80-90%
26	Pridorozhnyi	B	Nizhny Novgorod	22,000 m²	95-100%
27	Cascade	A	Nizhny Novgorod	34,400 m²	99%
28	Avangard	A	Nizhny Novgorod	40,000 m²	99%
29	Volzhsky Industrial Park	A	Nizhny Novgorod	64,000 m²	95-100%
30	Park Megalogix	A	Nizhny Novgorod	220,000 m²	95-100%

Figure 6.
Warehouse Infrastructure of the Volga Federal District

Table 4.

Distribution of storage areas by temperature conditions (food and manufactured FMCG goods)

No.	List of goods subject to warehousing and storage	Conditions of storage	Share in the total volume of storage, %
1	Fish	Freezing storage (−18 °C)	17.2
2	Meat	Freezing storage (−18 °C)	7.0
3	Household and industrial goods	Common storage	7.4
4	Furniture	Common storage	2.7
5	Canned food	Cold storage (2−4 °C)	1.1
6	Vegetable oil	Common storage	0.5
7	Paper and stationery goods	Common storage	0.3
8	Other	Common storage	1.4
9	Equipment and machinery	Common storage	13.8
10	Alcohol	Common storage	9.7
11	Flour	Common storage	5.5
12	Drinks, juices	Common storage	4.2
13	Cereals and pasta	Common storage	2.9
14	Sugar	Common storage	2.2
15	Salt	Common storage	2.0
16	Grain	Common storage	1.6
17	Fruit and vegetables	Cold storage (4−6 °C), ventilation	11.5
18	Milk and dairy products	Cold storage (2−4 °C)	9.0

However, as the results of the analysis of incoming traffic flows to Sakhalin show, certain types of building materials, particularly cement, the supply of which dominates in the overall structure of the transportation, do not have specific requirements for storage conditions (except for the humidity). Moreover, given the significant volumes of supplies, cargo owners quite naturally seek to deliver it directly to the construction site, thereby minimizing storage costs. In other words, there is a high probability that services to store the construction materials such as cement, will be unclaimed within the logistics center. So, the areas, which are intended for general storage, can be used to store such food products, which are not subject to special requirements for temperature regime (flour, beverages, sugar, etc.).

In such a situation it is advisable to make a redistribution of storage areas provided that not only food, but other industrial FMCG goods would be stored there, as these products do not have strict storage conditions requirements (Table 4).

Figure 7 more clearly shows the correlation of storage areas depending on the temperature mode of storage.

We would take as a basis the latest version of the structure of the storage areas distribution by temperature regimes, and it may be considered as the most appropriate in terms of incoming cargo flows to Sakhalin, so most areas should be provided for the general conditions of goods storage, which do not impose any special requirements on storage temperature mode. The share of such areas can be up to 40% of the logistics infrastructure areas. The market has a great need in low-temperature storage of food, especially of fish and seafood, as well as imported meat. According to Figure 7 the freezers area may be about a third of usable space of the warehouse areas.
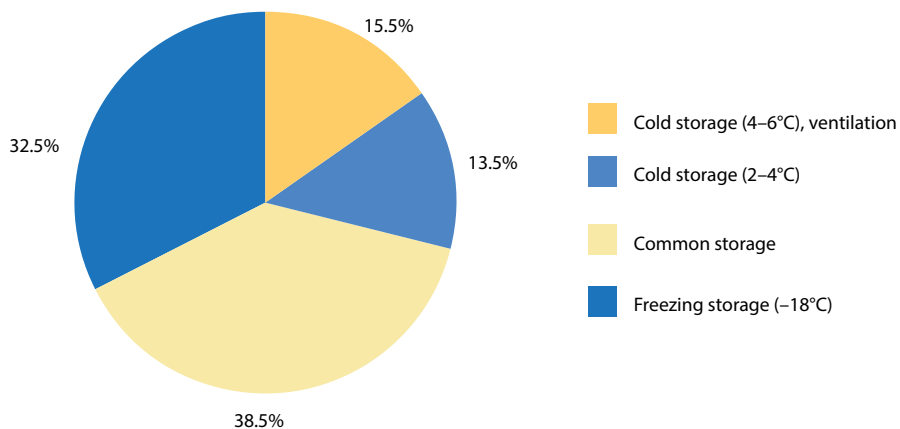
Thus, the results of the marketing research of the regional transport and logistics services markets include the determination of the parameters that are needed to make decisions about the appropriateness of the logistics business in a particular region:

- volume and structure of the cargo flows;
- current and projected capacity of the transport and logistics services market;
- current and potential demand for transport and logistics services by individual consumer groups;
- seasonal fluctuations in demand for transport and logistics services;
- "growing points", which will provide an increase in demand for logistics services in the medium term;
- existing warehousing capacities and projected ones;
- recommended areas of the logistics infrastructure facility;
- ratio of the storage areas of the logistics infrastructure facility based on current and future cargo flows;
- recommended range of transportation and logistics services, which will be needed in the medium term;
- recommended level of tariffs for transportation and logistics services, based on the average level of prices, that prevail in the market, and on consumers' expectations, etc.

The parameters mentioned above of the transport and logistics services in quantitative terms, received as a result of the market research, are needed to determine the revenue part of the financial model of a feasibility study for the construction of regional facilities and logistics infrastructure and allow to calculate the parameters such as economic efficiency, net present value (NPV), internal rate of return (IRR), payback period, which in its turn makes it possible to make an objective decision about the development of the logistics business in a particular region.

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