UDC 339

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PORT BODØ CASE «THE GATE TO THE NORTH IN THE 21ST CENTURY»

Анотація. *Стаття присвячена дослідженню основних відмінностей у логістичних ланцюгах Норвегії і Росії з урахуванням географії країн і характеристик маршрутів доставки. У даному дослідженні також здійснюється аналіз сильних і слабких сторін, можливостей і загроз (SWOT) морського порту Буде в контексті майбутнього розвитку операцій на Крайній Півночі. У статті представлені пропозиції щодо розбудови маркетингової стратегії морського порту Буде з метою зміцнення його позицій як «Ідеального (головного) сполучного вузла Крайньої Півночі».*

Ключові слова*: порт Буде, Північ, SWOT-аналіз, логістичні ланцюги, маркетингова стратегія, інфраструктура.*

Annotation. The article is devoted to investigation of the main difference between Norway and Russia logistics chains considering geography of the countries and delivery routes' characteristics. The SWOT (of the strengths, weaknesses, opportunities and threats) analysis of Bodø sea port in relation to the forthcoming expanding operations within the High North is also carried out. The article presents the suggestions for the

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marketing strategy of Bodø sea port aiming to strengthen its position as a «Complete conjunction point of the High North».

***Key words**: port Bodø, North, SWOT analysis, logistic chains, marketing strategy, infrastructure.*

***Аннотация.** Статья посвящена исследованию основных различий в логистических цепях Норвегии и России с учетом географии стран и характеристик маршрутов доставки. В данном исследовании также осуществляется анализ сильных и слабых сторон, возможностей и угроз (SWOT) морского порта Будё в контексте предстоящего развития операций на Крайнем Севере. В статье представлены предложения по развитию маркетинговой стратегии морского порта Будё с целью укрепления его позиции в качестве «Идеального (основного) соединительного узла Крайнего Севера».*

***Ключевые слова**: порт Будё, Север, SWOT-анализ, логистические цепи, маркетинговая стратегия, инфраструкутра.*

Problem statement. Development of the Arctic region is one of the priorities for both countries that have direct access to the region, and for those states that want to participate in the development of resource and logistical capacity of the Arctic.

Ports and port infrastructure, as well as creation of integrated logistics hubs, are the cornerstone of successful sustainable development of the Arctic region. In this context, the study of logistics capabilities of the ports of the region, along with ways of maximizing their efficiency and increasing their investment attractiveness is the task of utmost importance.

Review of recent publications. Such scholars as N. Nazarova, R. Rafaelsen, I. Mathisen, S. Buck, M. Grigoriev, O. Buch, T. Karlsen and others have studied the issues of transport infrastructure and functioning of the logistics chains in the High North.

Description of the unresolved issues within broader problem.

We believe that in the 21st century, the main competition for the Arctic logistics routes will unfold between the ports of Russia and Norway. In this regard, the study of the main differences between Norway and Russia logistics chains is a very important task. Port Bodø is one of the most promising offshore gates of Northern Norway. Examination of the «Port Bodø case» with conducting SWOT analysis is caused by the necessity of creating long-term plans for its development, as well as for the study of its competitive opportunities in the context of strengthening the fight for traffic flows.

The purpose of the paper is to investigate the main difference between Norway and Russia logistics chains considering geography of the countries and delivery routes' characteristics; to conduct the SWOT analisys of Bodø sea port; to develop the suggestions for the marketing strategy of Bodø sea port on the basis of the aforementioned research.

Main results. Port business is a strategic component of development of the economy of Norway and one of the key elements of transport system functioning. Ports in Norway are a key to ensuring independence of the transport, defense, foreign trade, transportation of goods, development and use of transit potential. Sea ports are crucial for the country's economy and allow maintaining services in the High North [1].

Development of logistic system in Norway and its cooperation with other countries occurs in the framework of global marketplace positioning (figure 1).

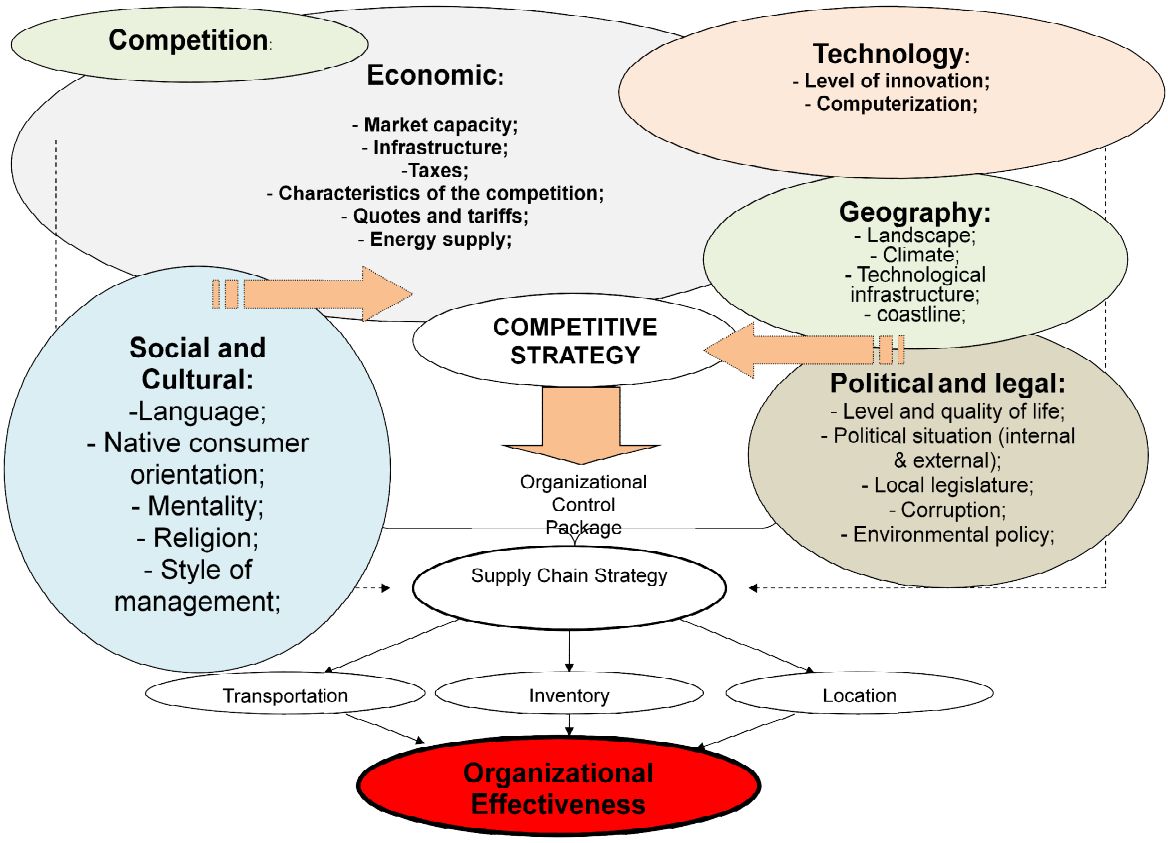

Figure 1. The Global Marketplace:

Uncontrollable Elements of Logistics System

Source: [2].

Brief characteristics of Norway Transport System.

It should be mentioned, that shipping plays the leading role on both internal and external transport links (figure 2). It is due to the specific geo-location, severe irregularities of the coastline, coupled with mountainous terrain and Norwegian historic seafaring skills. Transportation by seaway is 9/10 of the foreign trade and more than half of the domestic turnover. Norway is one of the leading shipping countries in the world, by the volume of merchant tonnage it is on the 5th place [3].

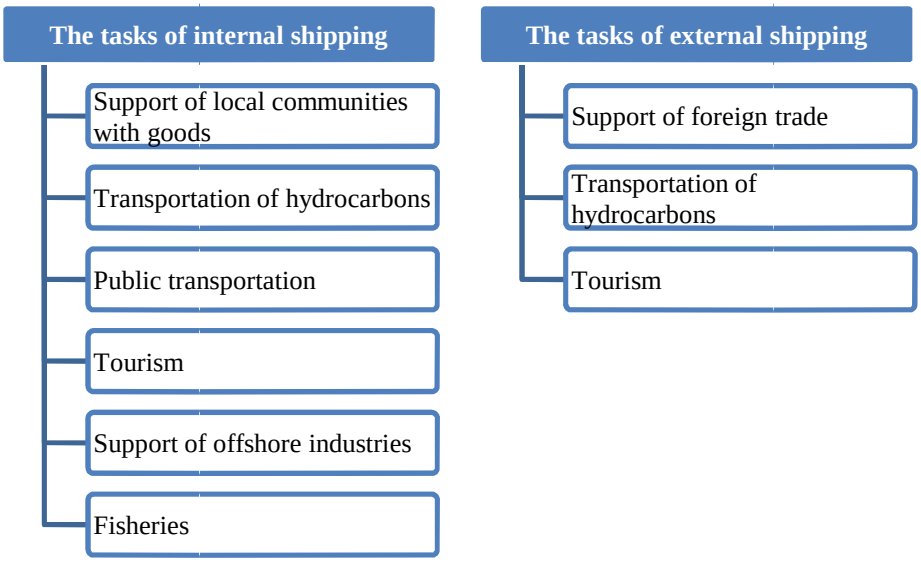

Figure 2. The Main Internal and External Tasks of Shipping in Norway

Source: The chart was developed by the authors.

Norwegian fleet includes a large proportion of tankers that make up more than half of the total tonnage. It is an important source of currency income to cover the balance of trade.

The length and role of railways and roads in Norway's integrated transportation system is limited and total length of railways (usually single-track) is 4200 km, of which slightly more than half are electrified. The most important railway junction is Norway's capital Oslo, it is connected by lines to Stockholm, Gothenburg (Sweden) and the main cities of the country – Bergen, Trondheim and Stavanger. The main air gateway is airport Fornebu, near Oslo, Norway.

The main difference between Norway and Russia logistics chains considering geography of the country and delivery characteristics.

Norway has enough power, but the economic and industrial development of the Barents Region will require completely new traffic flows. As a result of large-scale investment to the mineral extraction the transport demand will significantly increase.

The existing transportation infrastructure will not be enough and will require new strategic initiatives. Roads and railways need to be repaired and strengthened, as well as their capacity has to be increased. It is necessary to

build the new roads and railways. It should be mentioned in this context that using marine logistics is more efficient in Norway.

A range of weaknesses of logistics flows are identified in Russia such as: a significant amount of spare capacity; shortage of specialized and high-tech facilities; the exhaustion of a number of ports and the capacity of road and rail infrastructure near ports; the negative socio-economic and environmental impacts due to increased loss of time; high transportation costs and environmental pollution.

According to the tonnage, Russian merchant fleet is the seventh largest in the world (16.5 million DWT[2]), but most of the ships are worn out physically, that does not allow many of them to enter foreign sea ports. In Russia it is more effective to use roads and railroad transport (faster and cheaper) [4].

It should be mentioned that in term of the efficiency of logistics Norway is far ahead of Russia and Ukraine (figure 3).

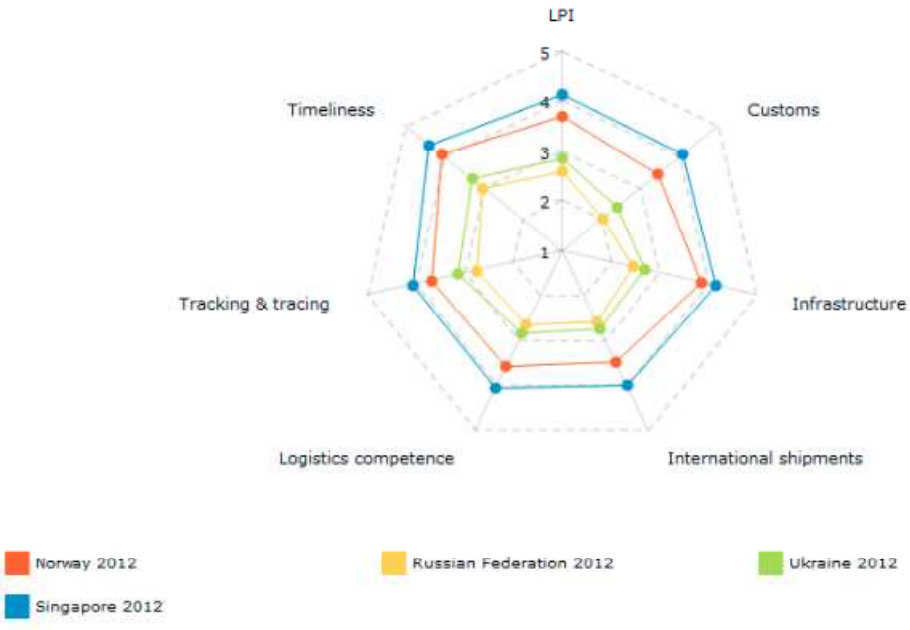

Figure 3. Logistics Performance Index 2012 comparison: Norway, Russia, Ukraine, Singapore

Source: [2]

[2] DWT – deadweight tonnage – the sum of the weights of cargo, fuel, fresh water, ballast water, provisions, passengers, and crew [9].

General characteristics of Port Bodø.

Bodø is a Navy base and fishing port in Northern Norway in the Renwick Bay. The wharfage length of port Bodø is 1.7 km with depths of up to 12.6 metres. Annual navigation could provide the basing of fishing vessels, up to destroyers. The total shipping turnover of port Bodø is 0,12 million tons. There are 8 cranes for loading and unloading marine cargo, fuel depots and a shipyard for repairing small vessels.

The Headquarters of Bodø (Navy and Air Force) which commands allied NATO forces in Northern Norway are located in the port. In 2 km southwest of Bodø is an airport with a concrete runway of 2,800 m and underground shelters for aircraft. It is used to base aircrafts which control airspace and waters of the Norwegian Sea shipping lines linking the Atlantic and Arctic oceans.

Port Bodø is a part of a complete transportation hub in the North, and performs the following functions: a national port, national hub port, fisheries port, Northern Norway's largest container port with different strategic areas (figure 4).

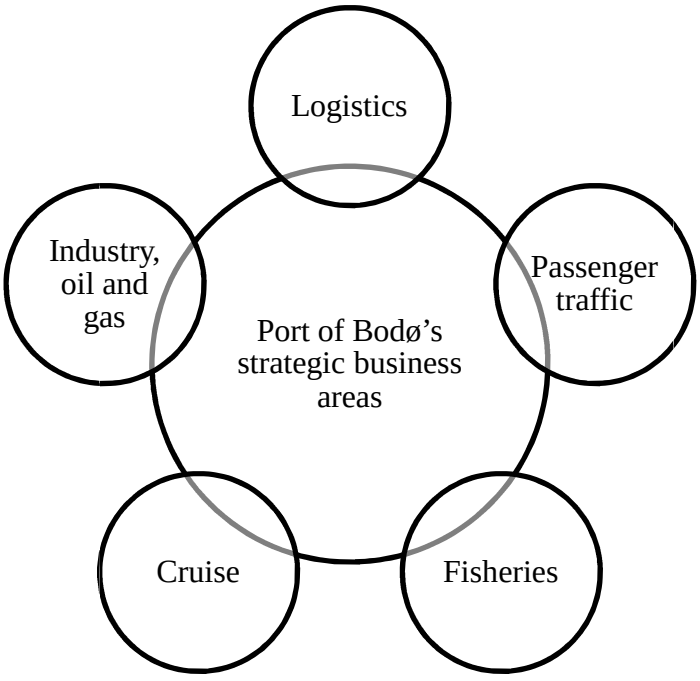

Figure 4. Port of Bodø's strategic business areas

Source: [5; 6].

Port of Bodø is:

1. 100 % owned by the Municipality of Bodø;
2. Self financed, with income from:
    a. 28%: Ships and cargo;
    b. 58%: Sales- and rental;
    c. 14%: Other income;
3. A business;
4. A service company.

Analysis of strengths, weaknesses, opportunities and threats (SWOT) of Bodø sea port in the relation to the forthcoming operations in the High North.

Logistics in the High North is characterized by:

1. Insufficient logistics infrastructure in the High North regions to meet future challenges (Arctic logistics was not considered as a source of industrial and regional development in the High North, but the infrastructure was developed to secure an efficient flow of extracted raw materials to southern regions);

2. Climate change and weather conditions impact logistics solutions in the High North (there are new logistics opportunities that will effect a competitive position of different transportation modes and solutions);

3. In case of emergency the virginity of nature and complexity of response actions execution demand increasing sustainability considerations from logistics operations in the Arctic (growing environmental impact based on current technology, regulation and organizational services is difficult to handle) [2; 7; 8].

We should emphasize that it is difficult to find an analogue to Bodø Port with the set of criteria mentioned above, which include: a branched railway, all forms of roads and air transport and widely developed marine transport.

At the moment the competition to attract containerized cargo among the leading ports worldwide is increasing (table 1). The increasingly important factor for success is the quality of service and logistics service level.

Table 1

TURNOVER OF CONTAINERS, MILLION TEU[1] PER YEAR

	PORT	MTEU
1	PSA Port of Singapore (Singapore)	27,68
2	Port of Rotterdam (Rotterdam, Netherlands)	11,15
3	Port of New York & New Jersey (New York, USA)	5,29
4	Port of Los-Angeles (Los-Angeles, USA)	7,8
5	Ports of Russia (Saint Petersburg, Murmansk)	3,6

Source: [4]

Table 2

SWOT ANALYSIS

	Positive impact	Negative impact
Internal	*Strengths* - Ports are strategically important for sustainable development of Norway; - Natural depth and year-round navigation; - Interoperability with all types of transport (railway, auto, internal marine); - Developed railway infrastructure; - Modern infrastructure; - Closeness of centers of consumption and production of bulk goods to some ports; - Increase in turnover; - The development of container transport by creating modern container terminals in ports; - Stable financial position; - Skilled labor and management team; - Years of experience.	*Weaknesses* - Geographical remoteness; - Bottlenecks on the approaches to the ports from railway and highways; - Total volumes of transshipment below the world average; - Low speed of cargo handling; - Low degree of cargo containerization; - The complicated procedure of customs registration of cargoes; - High costs of port's energy supply.
External	*Opportunities* - Advantageous geographical location – the location at the crossroads of international transport corridors, as well as a great transit potential; - Competitive rates; - Development of transport corridors; - Connection to Europe; - Use of the potential of the Northern Sea Route, and as a result, a significant reduction in transportation costs and delivery times of goods in comparison with the traditional routes.	*Threats* - The low percentage of transit potential use; - Inflexibility of rate policy; - Competition from the ports of neighboring countries.

Source: conducted by the authors.

[1] TEU - Twenty-foot equivalent unit.

Conclusion.

Suggestions for the marketing strategy for port of Bodø aiming to strengthen its position as a «Complete conjunction point in the North».

The main indicators of the competitiveness of the port are:

– Cargo grace storage period; year-round operation;

– The percentage of damage and theft of goods;

– Availability of storage; availability of infrastructure (road and railway lines and stations);

– The level of pass-through insert and transit time of delivery of the goods from the sender's station to destination port (for export) or from the port of the sender to the consignee's warehouse (import);

– The probability extra-costs and delay of cargo.

Aforementioned elements are directly dependent on the processing conditions and maintenance of ships at the port: port charges and tariffs of pilots' and tugs' services, the presence of deep-water berths for large vessels, the intensity of the loading operations, lack of downtime waiting for berth.

Ensuring the competitiveness of the port on these factors, maritime administration and port management create the necessary conditions to attract cargo. Perspectives of the development of Port of Bodø largely depend on the growth of cargo turnover between Russia and Europe, increasing the number of vessels and their cargo capacity and also great potential in further development of Bodø as intermodal hub between the vast fishery resources of Northern Norway and the vast markets of the Baltic's and consumer goods on the return leg.

The strategy for further development of the port is based on the global trends of world economic growth, in particular, acceleration of the pace of growth of GDP of the BRIC countries (Brazil, Russia, India, China) with slower growth in Europe.

The balance between exports and imports has to be conducted. It will increase port's attractiveness for carriers that can easily find the goods to be

transported in both directions, which prevents the transportation of empty containers, as well as to create a zone of free storage of containers for transit container traffic, because the absence of import duties in transit are often the factor of decision when choosing a container terminal.

The further development of the port includes the improvement and expansion of logistics systems. In particular, additional logistics facilities should be built. They have to be connected by transportation links with the container terminal.

Bodø is able to provide the huge volume of maritime cargo between Norway and European countries. Bodø port has much more convenient location close to the river, rail and road transportation systems of the country than other ports in Norway. At the same time competition with other ports in the quality of services requires a relatively small investment.

Improving competitiveness of Bodø port is possible by:

- Strengthening the innovation component in the development of sea ports, equipping them with the latest advanced technology, modern electronic control technology and information processing, updating the service and support fleet;

- Building infrastructure to handle large vessels;

- The organization of special economic zones in the port;

- Improving tariff policy.

Among the basic improvements which will increase the bandwidth of terminals there are:

- Expansion of access channels;
- Acceleration of ice-breaking entries in freezing ports;
- Increase of operational efficiency (use of efficient equipment);
- Increase of efficiency (use of longer lengths berth etc.);
- Improvement of road and railroad access routes to the port (eliminating «bottlenecks» in the transport infrastructure).

The main qualitative improvements to increase the capacity of terminals are:

1. Improvement of customs procedures;
2. Elimination of administrative barriers;
3. Improvement of operational processes in terminals;
4. Reduction of the costs;
5. Increase of reliability;
6. Establishing additional customer services;
7. Decrease of transportation time.

REFERENCES

1. Норвегия. Официальный сайт в России [Электронный ресурс]. – Режим доступа: http://www.norvegia.ru/

2. Nazarova N. Logistics In The Context // Business practice in Norway: SMEs for business development in the High North [Electronic resource]: Power Point Presentation / University of Nordland, Bodø, Norway, 1st of August 2013.

3. Структура транспорта в Европе [Электронный ресурс]. – Режим доступа: http://www.refu.ru/refs/17/37981/1.html

4. Rafaelsen R. Logistic Challenges in the Barents region [Electronic resource]. – Access mode: http://barentsobserver.com/en/opinion/logistic-challenges-barents-region-15-11

5. Stabæk T. Nordland – Nature is our power// Business practice in Norway: SMEs for business development in the High North [Electronic resource]: Power Point Presentation / University of Nordland, Bodø, Norway, 5th of August 2013.

6. Mathisen I. Transport infrastructure in the High North // Business practice in Norway: SMEs for business development in the High North

[Electronic resource]: Power Point Presentation / University of Nordland, Bodø, Norway, 6th of August 2013.

7. Hill C., Jones G. Theory of strategic management (chapter 2 «Opportunities and threats: Analyzing the external environment») / C. Hill, G. Jones. – South-Western College Pub : 9th Edition, 2009. – 518 pages. – pp. 41-73.

8. Hill C., Jones G. Theory of strategic management (chapter 3 «Competitive advantage») / C. Hill, G. Jones. – South-Western College Pub : 9th Edition, 2009. – 518 pages. – pp. pp. 75-107.

9. Turpin, Edward A.; William A. McEwen (1980). Merchant Marine Officers' Handbook (4th ed.). Centreville, Maryland: Cornell Maritime Press.