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FACTORS OF TRANSPORT (AND LOGISTIC) DEVELOPMENT

Case Study of Slovenia

ABSTRACT

The characteristic of the present time is the crucial, significant, and rapid transformation of the common conditions of trade, transport, and information interchange. However, the strategic role in this process belongs to the communication and information systems. The development of communication and information technology systems is incredibly fast, so that reference is made to the world of advanced communications.

The trend found in business life is very complicated. We are striving both towards collectivisation as well as individualisation at the same time, since thus the world of competitiveness and co-operation is created.

In this world the transport and communication and information network is expected to become fully integrated in the industrial production and service-providing system, so as to provide the foundation for a dynamic adjustment to the market requirements.

It is clear that the transport infrastructure and cross-border development stand for the predominant developmental impulse to the general and physical development of particular areas and of the Slovenian country as a whole. In the pre-accession period of Slovenia to the EU (the accession of Slovenia to the EU could only occur in 2003-2004, at the earliest), it is necessary, in both fields, to accelerate the activities that will provide co-operation on equal footing. Taking into consideration all the increasingly open borders (associated members, full members), the economic development will have a favourable impact on the improved competitiveness and co-operation among regions and states, which will result in an increase in the flow of goods, capital and services, and in particular in an improved mobility of the population.

KEY WORDS

transport, logistics, developmental factors, Slovenia, prospects

1. INTRODUCTION

International integration has nowadays become a «conditio sine qua non» without which the companies and the whole states cannot be run successfully. The fact is the more important for the small countries

which due to their low specialisation have to import and due to the relative smallness of their markets have to export. The Slovenian economic development should move in the direction of an increasing economy internationalisation which assumes gradual merging of production and service activities on different levels and incorporation first into the European networks and later also into other networks of international economies. One of the most important factors of this integration is transportation.

The practice of transportation (and logistics) in the EU countries find support in the powerful industry of information and communication technology, in the automotive industry, in the transport equipment industry, and in research institutes.

Considering that the paper deals with strategic goals, decisions and measures to be taken in the development of transport in Slovenia, this should not be casual or driven by blind forces but carefully and strategically orientated to the macro and the micro fields.

At the beginning the paper suggests a general strategy of transportation and identifies the important factors: demand, supply, complementing and supporting factors, government and prospects. The influence of these factors will be shown on the case study of Slovenia.

The case study of Slovenia is also indicative of other countries, in particular of smaller newly emerged independent countries in transition in Central Europe and on the Balkans.

2. THE GENERAL MODEL IN TRANSPORTATION

How to be organised at the state and company level in order to be maximally competitive in the global responsive environment is an issue faced by governments and managers.

Responsiveness depends a great deal on efficient transportation, which is a typical responsive branch.

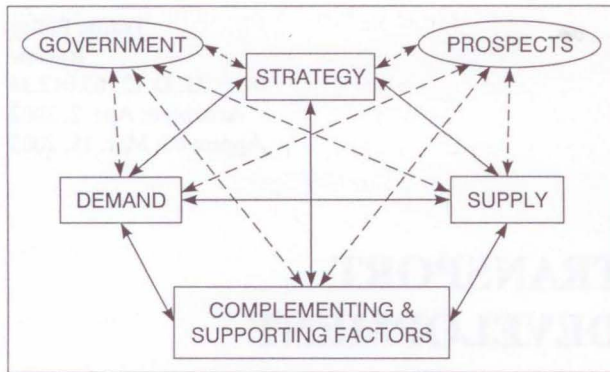


Figure 1 - The strategy model in transportation

Transportation must be oriented to an organisational and operational layout / concept of such a responsive system, and its upgrading. The countries and companies which have realised this, try to make use of this fact to their benefit and gain advantage.

Figure 1 shows a general model of transport strategy adapted from Porter, which may be used also in decision-making on the transport development in Slovenia. This model could be considered by the government or other authorities in the long-term transport policy. The model shows factors affecting the state strategy but also the opposing options.

Interpretation:

Transport strategy is affected predominantly by demand, supply and complementing as well as supporting factors, which is presented by the continuous line. The government and prospects would have an occasional impact.

3. DEMAND

Slovenia is a European and a Mediterranean country. The Slovenian development strategy is therefore exposed to the influence of the trends and events in the European Union, Central and Eastern Europe, as well as in the Mediterranean region. The future development of Slovenia depends vitally on its capability to adapt to these changes and its vision on the level of the state and enterprises.

Strategic decisions of development of transport in Slovenia (on the level of the state and of enterprises) can be treated from the following aspects:

- strategy of economic development;
- mobility;
- inclusion of the Slovenian transportation in the legal and institutional field.

3.1. Strategic Options of Slovenia and its Economy in the New Circumstances

Due to its favourable geographical position, Slovenia can specialise in providing particular ser-

vices. Slovenia has got development resources and comparative advantages in two positive fields, i.e. in transportation and tourist trade. Therefore, it must focus on them. The service-providing industries and the role of Slovenia as an intermediary in linking the East and the West appear as a practicable opportunity, provided that infrastructure is improved in the broadest sense, i.e.: roads, railways, harbour, warehouses, terminals, distribution centres, telecommunications, staff-training, legal regulations, etc. This is the best way to attract attention and to persuade countries and companies to co-operate.

The experience of smaller countries in Europe, but also in the East, has proved that the orientation of the Slovenian society in production must not be forgotten (at home, abroad). On the contrary, the service-providing activities cannot be the only strategic direction. However, these can contribute to faster development of production with higher productivity. The success of smaller countries of Europe and Asia is not only supported by service providing, but also by the processing industries.

Experience has shown that such economies have to be open to the world. There are several reasons for that. On the import side there are raw materials, intermediate goods, semi-products, component parts and groups which cannot be found in the domestic market, on the other hand the exports support the production which therewith renders the required economy of scale possible.

The orientation of the Slovenian economy should lead towards establishing of a framework for the transport strategy (i.e. logistics). An important factor for the development and gaining of new lucrative markets are adequate international systems of logistic support. A comparative macrologistical systems analysis by Ihde states that companies in countries with better transport infrastructure are in a much better position as far as the bilateral trade exchange is concerned, according to Porter the companies that have the advantage are those with favourable factor conditions (infrastructure, knowledge, etc.).

Mutual integration of production and service industries will be enhanced by the completion of the entire transport system, the information flows and communication mechanisms.

3.2. Mobility

Having a really free flow of goods, persons and services does not mean that something can be (allegedly) performed, but it should be actually implemented. The meaning of freedom will have its weight when we are truly mobile.

The aim is an optimum sustainable mobility. In addition to optimum transport connections with the

neighbouring countries, it comprises mainly an optimum transport connection between towns and regions within Slovenia in order to support positive division (allocation) of work and herewith contribute to more favourable living circumstances and work conditions. The improvement of transport conditions in Slovenia represents a national issue of the first priority and a contribution to the mobility of Europe.

Mobility involves costs and efficiency. Low mobility may imply less investment (poor condition of infrastructure) and lower efficiency. On the other hand, high mobility can involve higher investments (resulting in improved infrastructure and higher physical parcelling / apportioning), and higher efficiency. This must be brought into line with optimisation, paying attention to economic and social goals, as well as financial resources available in Slovenia.

The transport infrastructure of Slovenia, along with its transport system should be integrated in the European transport system in such a way that the developmental interest of Slovenia is fully highlighted and included to an optimum extent in the course of Slovenia's approximation to the EU (an associated member, a full member). This refers in particular to the potential strengthening of the gravitational impact of major state and regional centres in the neighbouring countries.

3.3. Legal and Institutional Integration of the Transport Activity of Slovenia in Europe

The framework for the development of transport business in Slovenia comprises the internal requirements and possibilities, in that the external events – particularly those in the EU – have to be considered.

Slovenia is interesting for the EU as a transit country regarding road, rail and combined transport (especially the connection with Greece, which is a member state of the EU, and the connection on the Barcelona – Kiev route).

The problems of harmonisation in the field of transportation should be considered from the functional and institutional point of view.

For Slovenia, the following international documents are important:

- 1) The Act of Ratification of the European Agreement on Major Railway Lines (AGC), Official Gazette of the SFRY, 11 /89). The Agreement was adopted by the United Nations Economic Commission (UN ECE, 1985), and outlines the development of the Slovenian railway network in connection with Europe. This Agreement comprises the following railway connections:

E65: Gdynia-Warsaw-Breclaw-Vienna – Brück an der Mur-Villach-Jesenice-Ljubljana-Pivka-Rijeka;

E67: Brück an der Mur-Graz-Šentilj/Spielfeld-Zidani Most;

E69: Budapest-Kotoriba-Pragersko-Zidani Most-Ljubljana-Koper;

E70: Paris-Turin-Milan-Triest-Sežana-Ljubljana-Dobova-Zagreb-Belgrad-Sofia-Ankara

- 2) The perspective plan of the development of the European railway infrastructure, the International Railway Union, Paris 1974, amendment 1990; the document comprises three major traffic routes across the Slovenian territory:
 - the Tauern (München-Jesenice-Ljubljana)
 - the Balkans (Jesenice-Ljubljana-Zidani Most-Zagreb-Ankara)
 - the Adriatic (Budapest-Pragersko-Zidani Most – Ljubljana – Koper-Triest-Rijeka);
- 3) The European high-speed railway network, the Community of European railways within the EU (GEB), Brussels, 1991.
- 4) The Agreement between the European Economic Community and the Republic of Slovenia in the field of transport (Official Gazette of RS, International contracts, no. 14/93). It concerns road, railway and combined transport, with inclusion of necessary infrastructure, implementation of the common traffic policy, and efficient, non-hindered and non-discriminatory transit commodity flow through Slovenia.

Both signatories agreed that their common objective was to construct the indicated traffic routes as soon as possible. To achieve the objectives contained in Art. 5, the Protocol was signed on the financial co-operation between the EU and Slovenia for the period from 1 January 1993, to 31 December 1997 (Art. 7).

- 5) The Agreement on the Fund set up for the co-operation in Trans-European Railway (TER) (Off. Gazette of RS. 35/94). The main reason for the founding of the TER-programme was in the political changes in East Europe. The aim of this programme is to increase the quality and efficiency of the combined transport, and a harmonised development of rail and combined transport between the countries of Central and Eastern Europe, and among them and the rest of Europe.
- 6) The Law on ratification of the European Agreement on major railway lines in the international combined transport and the accompanying facilities (AGTC) (Official Gazette of RS, international contracts, 16/94 – Official Gazette of RS 58/94).

The Agreement determines the main lines that are relevant for the international combined transport, and includes the container terminals in Ljubljana and Koper, and the border passes Opicina/Sežana, Jesenice-Rosenbach (Področja) and Maribor/

/Spielfeld (Šentilj) classifying them on the international level. This document prescribes the lowest infrastructure standards (stations, rail lines, terminals) and operational requirements for the trains employed in this kind of transportation.

- 7) The Crete Declaration (1994), the result of joint proposal of the European Commission, the Secretariat of the Conference of the European Ministers and the UN Economic Commission) represents a strategic transport plan.
- 8) The Vienna Paper, the Conference of Ministers of Transport of the Central European Countries, Brijuni, February 3-4, 1994: Austria, Croatia, Slovenia, the Czech Republic, Hungary and Slovakia participated in this event. The programme of construction of transport infrastructure in Austria, Croatia, Slovenia, the Czech Republic, Hungary and Slovakia was used as the working material at the conference. The Vienna Paper is a programme document and defines precisely the prices and terms, length of traffic routes and even facilities.
- 9) The Alpine Convention (Official Gaz. of RS 19/95).
- 10) The European Agreement of Association, signed 10 June 1996.
The Agreement between the government of R. Slovenia and the government of Hungary on direct railway connection.

4. SUPPLY

Larger growth of the transport of goods (demand for transport services) in Slovenia (will) depend on the growth of the GNP and vice versa, larger GNP will depend on a more efficient transport (supply side). On the other hand, the development and growth of transport do not depend merely on the growth of GNP but are also seen as a result of the demand from individual firms for transport services in Slovenia.

Therefore, we speak about strategies and strategic scenarios at macro and micro levels as well as about the harmonisation of those two.

In connection with that, the transport (and logistic) strategy of Slovenia should be divided as follows:

- macro and
- micro field.

4.1. Macro Field

Goals, measures and authorities in the macro field:

- a) Goal: enabling integration of economy and other activities of the distribution of work and market in Slovenia and in relation to the EU.
- b) The measures of transportation policy to obtain this goal may be divided into two basic groups, indirect and direct. Direct measures have greater

influence on the supply of transportation services; indirect measures, however, influence distribution among various kinds of transportation.

Direct measures are particularly:

- infrastructure measures: building up, renovation and modernisation of infrastructure,
- subsidies: financial means allocated by the state to various modes of transportation without repayment,
- various regulative measures: e.g. limitation of loading capacity and the weight of vehicles, conditional carriages, chartering: giving permissions to companies to carry out certain kinds of activities, by quota systems: limiting number or tonnage of vehicles,
- limitation of road carriages by issuing passes, by road taxes, etc.

Indirect measures are particularly the following:

- indirect subsidies, e.g. for acquisition of certain means (e.g. acquisition of certain freight cars for the piggyback system - fostering piggyback carriages),
- indirect limitation of a definite kind of transport (e.g. different taxation of lorries),
- tariff policy including different factors - economic, economic and political, competence, social, etc.

c) The authorities means particularly the state:

- the Parliament,
- the Ministries - of transport and communications, of science and technology, of education and sports, of finance, of physical planning and environment, of economic affairs and development.

d) For the transportation connection with EU the following capital goals should be pointed out:

- improvement of rail and road infrastructure regarding speed, capacity, etc.

Accessibility, mobility and efficiency of the Slovenian transport system depend largely on the infrastructure. The development of infrastructure must follow the development of international exchange. Moreover, the infrastructure (suprastructure) and transport system on the whole can accelerate international transport by attracting the flows of goods.

Larger volume of transport and consequently better exploitation of the Port of Koper and the railways depend and will depend in the future on the increased transit.

The Port of Koper envisions its possibility of further development in highway and railway connections in the direction Ljubljana - Maribor with a branch towards Austria and Hungary.

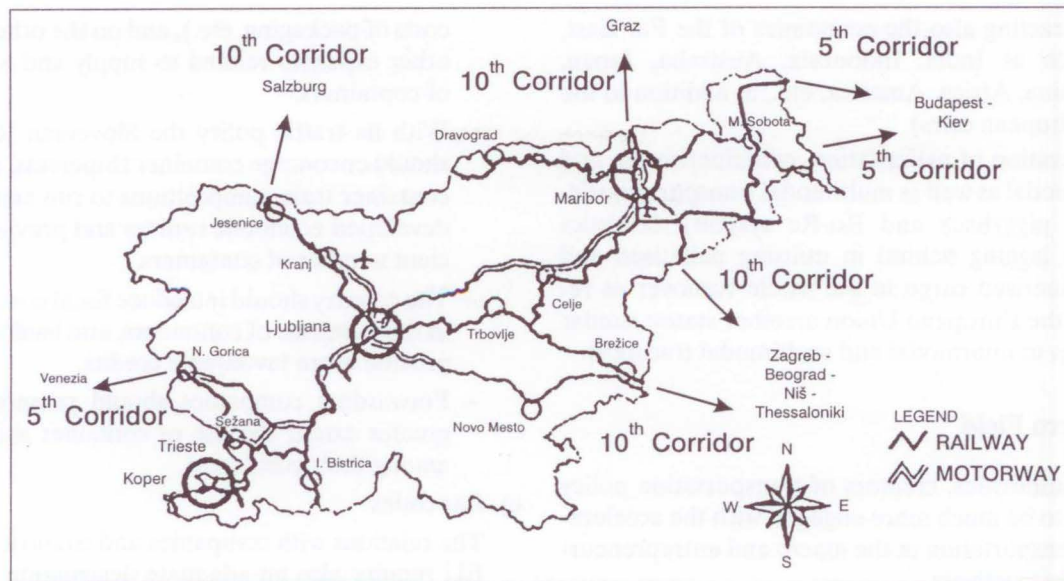


Figure 2 - 5th and 10th pan-European traffic corridor through Slovenia

Source: Traffic Institute of Ljubljana

A direct railway connection to Hungary would increase the turnover in the Port of Koper, whereas a more appropriate road connection would increase the volume of traffic from the countries oriented chiefly to road transport (Hungary, the Czech Republic, Slovakia, Bulgaria).

Taking into consideration all that, the geo-transport position requires a more rapid construction of the highway and railway network, chiefly in the main transit connections through Slovenia - 5th and 10th pan-European traffic corridor¹ (Fig. 2), for which also the European Union is interested (and also prepared to provide the funds for the construction). The construction of the road-network for the 10th corridor that proceeds from the Slovenian border in the following direction – Bregana (off the Slovenian border) – Zagreb – Dubrovnik – has also aroused interest by the Americans².

- Acceleration of development of interports in Ljubljana and Maribor as well as the Port of Koper (Fig. 2). The mentioned interports and the Port of Koper should completely fulfil their functions as organic complex of integrated structures and services with the aim of transportation of cargo combining various kinds of transportation, which includes the railway discharging yard capable of making up and receiving complete train compositions, including piggyback ones. This yard should be connected with seaports, airports and large communication networks. Simultaneously, the belonging subcentres of interports will have to be developed (Fig. 2).

Ljubljana and Maribor are the most important national and also relevant international E-transport hubs of Slovenia. The Port of Koper is one of the leading /most relevant/ generators of the development of transport. The economic effects of port activity are multiply reflected in direct surroundings and wider environment. These effects are most visible in the activities of maritime, road and railway carriers, in freight forwarding, agencies, and in trade, catering, tourist, financial and other services. Per one unit of generated value in a direct port activity, eight additional value units are generated in the whole Slovenian economy.

The Port of Koper will try to assert itself as an international commodity centre. The strategy of the port company, as well as the changes in functional policies should contribute to building up of higher competitiveness and more efficient operation.

The strategy of the Port of Koper should be based on the following basic directions:

- the universality of the range of port services offered at the highest quality level;
- the Port of Koper company ('Luka Koper') - a commodity distribution centre;
- an efficient information network and logistical connection with the world;
- stability and profitability of the operation in the long run.

The strategic goal of the Port of Koper is to become one of the best ports in the southern Europe, to develop from a handling port into a commodity distributional centre (in view of

attracting also the economies of the Far East, such as India, Indonesia, Australia, Japan, China, Africa, America, etc., in addition to the European ones).

- e) Acceleration of palletisation, containerisation and intermodal as well as multimodal transport (particularly piggyback and Ro-Ro system). Statistics shows lagging behind in utilising palletised and containerised cargo in the whole turnover as regards the European Union member states; similar applies to intermodal and multimodal transport.

4.2. Micro Field

The authorities, creators of transportation policy will have to be much more engaged with the acceleration of transportation in the macro and entrepreneurial fields respectively.

This acceleration should include:

a) Palletisation

Typical for the economies of developed countries (e.g. EU) is to make use of palletisation in carriages and thus achieve better cost and qualitative effects. Relation with these countries requires equal efforts of the Slovenian companies in this field as well.

Therefore, the care of accelerating palletisation should be distributed above all among companies (point-of-origin, point-of-consumption), carriers and the country.

- It is the concern of companies to acquire pallets, fork lifts and to provide for the training of personnel,
- the carriers should prepare tariffs and other concessions for carriages,
- the country should provide fiscal concessions in acquisition and operation with pallets and fork-lifts, banks by granting credits, and chambers of commerce should organise seminars for companies.

b) Containerisation

Container transport has an increasingly important role in the economically advanced countries (e.g. EU) because of its numerous specified advantages. For the development of containerised transport, adequate infrastructure is important, particularly container terminals in regions with advanced economy.

Similarly as for palletisation, care should also be shown for containerisation, above all in the companies (point-of-origin, point-of-consumption).

- In calculation of costs (and prices) companies must consider, on the one hand, the advantages of container shipments (cheaper loading and discharge, transport tariffs, less damage, lower

costs of packaging, etc.), and on the other hand, other expenses related to supply and handling of containers.

- With its traffic policy the Slovenian Railways should encourage container shipments, arrange container train compositions to run among the developed economic centres and provide sufficient number of containers.
- The country should introduce fiscal concessions in the purchase of containers, and banks should provide more favourable credits.
- Forwarding companies should promote to a greater extent the use of container shipments among their customers.

c) Bar codes

The relations with companies and countries of the EU require also an adequate designation of consumer goods.

In EU an EAN - European Article Numbering standard is used, i.e. a bar code enabling electronic data acquisition and therefore timely and accurate data about stocks, prices and titles of products. This enables rational business operation.

The products which are not designated by EAN codes cannot be sold at the points of sale where electronic counters are used.

- d) Organisation of transportation and logistics in Slovenian companies is informal, i.e. divided to different company sectors (purchase, production, sales, marketing, etc.), therefore integration of common goals is suffering.

Measures should be taken towards concentration of transportation and logistics within separate bodies whose responsibility and rights in taking measures should be equal to those of other principal sectors of the company (purchase, production and sales).

- e) Transportation and logistical information technology

Transportation and logistical information technology are an indispensable means for flexible performance and supervision of transportation and logistical processes. Its goal is the highest possible adaptation to constant changes within a company, with partners and generally in a wider geographical area (must be compatible with the customers, agents, carriers and customs authorities).

The authority taking measures in the transportation and logistic field within the company is its management, often managing in co-operation with partners - apart from that the Chamber of Commerce of Slovenia and its regional branches are involved, particularly when supporting initiative is taken by the state authorities.

4.3. Logistical Approach

Nowadays, in addition to strictly business results there are other demands, such as the effects which cannot be precisely measured and are concerned with human protection and protection of the environment. Those are the values which are gaining in importance, since they contribute to a greater quality of living. Advanced transport technologies largely suffice for both criteria and are being successfully integrated into the transport systems of individual countries of the European Union and into the European Union as a whole. Advanced technologies increase the attractiveness of an individual transport holder and boost the employment of different holders.

In Slovenia, the development of advanced transport technologies was slow and it has been lagging considerably behind the current condition in the EU: this could be largely blamed on the out-of-date condition of railway infrastructure and bad organisation of transport.

Even the production and merchant organisations in Slovenia have to insure higher efficiency of transport by introducing containers and pallets, industrial rails and, above all, information technology: all of them together would form the basis for an advanced technology of transport.

In transportation strategy it is important to take a logistical approach³, i.e. it is necessary, apart from transport, to consider also other logistical elements (for example distribution centres). Apart from treating transportation as a phase in the logistical cycle (logistics is a wider notion which includes transportation, so it is normal that we talk about transportation in logistics), we can also talk about logistics in transportation and logistical support of transportation.

The extent to which transport activity sub-systems will be present in the logistical cycle will depend on bringing other sub-systems into line. Sub-systems are interconnected and the output of the system depends on the quality of these connections and influence of the environment (the market). For example, greater storage capacities could mean less transport, or better said, greater efficiency in movement will reduce storage, while greater warehousing efficiency will enable the goods to be kept safely and economically.

The principles on which the logistical concept stands, should pervade much more the transport activity. The crucial aspects of logistical function in transportation lie in inter-modality, multi-modality and communication and information technology.

Here we speak about connecting different transport holders (and infrastructure too) which enable synergetic effects. Nowadays, it does not merely suffice to transfer goods and persons, but there are other important features, especially punctuality, safety and the possibility of informing the customer regarding

the merchandise at any given moment. The goods must reach the consumer not only in the right quantity, the right condition, the right place and the right time, but also at the right price. Costs for packing, insurance, freight, documentation, interest on capital, terminal handling charges vary depending on the route or mode of transport chosen.

It is obvious that advanced technologies of transport demand more skills and knowledge especially in international business. Therefore, transport and other logistic organisations (mostly the forwarding agents) in Slovenia have to be trained in such a way that they will be able to face the new challenges.

Changes that are in progress today concern the structure of goods and are taking place parallel to the creation of new production and distributional structures (in the global environment). This demands more knowledge and skills, which all influence the tertiarisation of transport services.

Nowadays, it is normal that the providers of logistic services in Slovenia (like freight forwarders), are required to act as logistic systems, that is, the promoters of the logistic concept. The more support they offer to the carriers and production and trade companies, the more efficient transport chain and their business will be.

Integration of individual functions within the logistic activity of today reflects the needs for such services. Since the goods segment of a high logistic profile is gaining importance, the demand for integrated logistic units is bound to rise. Therefore, there will be more demand for service providers who will master the transport (above all the intermodal and the multi-modal ones), as well as storing and information technology, and, in addition to that, offer a global logistical service⁴.

5. COMPLEMENTING AND SUPPORTING FACTORS

Complementing and supporting factors - particularly the industry of information and communication technology, industry of vehicles, industry of transportation equipment, science and research institutes - contribute a great deal to the efficiency of the whole transport system. The achieved stage of development of these factors in Slovenia provides good ground for the development of transport activity.

Furthering of the transport (and logistics) development in Slovenia ought to rely more on scientific research. In Slovenia the following institutes and research centres have been dealing with the question of transport and logistics: the Institute of Transport in Ljubljana (emphasising the macrologistics), the Transport Sciences Institute of the Department of

Table 1: Factors influencing location decisions of multinationals in Europe.

		Operation by trades	Operation by regions
A. MARKET			
1.	Size and prospects	3.2	3.1
2.	Import duty	0.7	1.8
3.	Non-customs obstacles	1.1	1.7
B. PRODUCTION AND COSTS			
4.	Labour costs	1.5	2.1
5.	Labour quality	2.0	2.6
6.	Rental	2.2	2.6
7.	Energy costs	nd	nd
8.	Exchange rate	nd	nd
9.	Expenditure of production components	nd	nd
C. TRANSACTION EXPENDITURES			
10.	Language	3.0	3.4
11.	Business framework	2.6	3.0
12.	Attitude of government, purchasers and companies to foreign companies	2.2	2.4
13.	Transportation	2.6	3.5
14.	Telecommunications	2.0	2.6
15.	Industrial relations	1.3	2.2
16.	Employment limitation	1.4	2.7
17.	Cultural factor	nd	nd
18.	Expenditures of coordination between head office and company in foreign country	nd	nd

Note: Grades are between 1 and 5, where the rate is higher it means higher importance of variable; nd - means no data available.
Source: Dunning, J.H.: Governments, Economic Organisation and International Competitiveness, 1989, p. 30

Constructing from the University of Maribor (with the emphasis on the infrastructure), the Transport and Logistics Institute of the Faculty of Economy and Commerce of the University of Maribor (with the emphasis on business logistics), the Faculty of Marine and Transport Studies in Portorož of the University of Ljubljana, the Institute of Economy in Maribor and, finally, the Institute of Urbanism in Ljubljana.

6. GOVERNMENT

The role of government is very important. It may influence the supply and the demand as well as the complementing and supporting factors.

It is known that the government can act as a corrective or incentive factor. Its role in Slovenia is particularly important in building up the infrastructure (suprastructure) facilities with minimum mobilisation of private capital.

Today worldwide (in global environment), we can follow the internationalisation processes in the production, which leads to strengthening of the advanced

forms of co-operation with foreign countries. The international exchange is rapidly gaining the character of an intra-firm exchange among the parts (units) of trans-national (multinational) corporations, which are in various ways mutually connected.

The present conditions in the international market only allow for this approach for Slovenia to increase its share in the international exchange and economic relations.

The factors which influence location decisions of multinational companies in Europe can be seen in Table 1.

The factors are allocated to three groups:

- market,
- production and costs,
- transaction expenditures.

In the first group of factors (market), the size of the market and its prospective are the most relevant ones. The Slovenian market is not a big one; however, it is interesting.

In the second group of factors (production and cost), the quality of workforce and the rental rates are

significant factors. We can call the quality of the workforce in Slovenia competitive, unfortunately, this does not apply to the rental rates.

In the third group of factors (transaction expenditures), the highest rates are attributed to the following factors: language, business framework, attitude of the government, buyers and enterprises towards foreign enterprise, transport and telecommunications. A great deal of these factors depends on the overall policy of the state, whereas others rest on the corporate management in the role of the partners of foreign companies.

It is evident that transport is becoming a significant factor (2.6 3.5) relating to the location. Improved transport conditions in Slovenia would enhance the productivity of processes, or create the preconditions required for it. This would accelerate physical allocation of work, strengthen the exchange relations, and allow for the exploitation of development potentials in individual regions and in the whole economic system of Slovenia connecting it with Europe and the rest of the World.

Accordingly, Slovenia (the government) and its corporate sector, each in its own sphere, must create favourable conditions in order to make these factors interesting for foreign (and national / domestic) investors. Investments of foreign multinational companies in Slovenia today are behind investments in member countries of EU. The share of the direct foreign investments in the GNP (currently at the rate of 13.3%) is far smaller than that in other countries negotiating their entry into the EU (e.g., in Hungary the foreign investment share stands at 42%!). Yet, the foreign investments have until now been largely export bound, which for Slovenia represents an important issue⁵.

7. INTERNATIONAL PROSPECTS

We could say that in the light of global co-operation and competence, prospects (chances, threats) represent an important factor. Slovenia must be ready and be able to take advantage of the chances (or amortise threats).

The prospects (chances, threats) - which arise in the international sphere, can greatly affect the development of the transport industry. In the first case (chances), a service-providing industry and an intermediary role in linking the East to the West may be questionable, and in the second case (threats) it might be cabotage, for instance.

In Europe the following relevant processes are today in full swing:

- the transition of the Eastern countries, going through a hard transitional period, which in the long run affects the changes in the political life, as well as in the economy;

- an increasing economic and political associating of the EU countries (changes which strengthen the political and economic unity);
- approaching of the EU and Eastern European countries closer together (links are established in various fields; however, special importance is laid on transport connections).

The events and developments so far made have already brought about relevant changes that are reflected in the larger trade exchange between the countries in transition and the EU. The exchange is expected to rise between the East and the West (and vice versa), as well as on the relation between the Central and East European countries and overseas countries - (and vice versa), therefore a higher transport activity will follow in both relations. The Port of Koper could become the main gateway primarily for the countries of Eastern and Central Europe.

Good international prospects such as car exports from the European countries to the East and vice versa (via Port of Koper), already indicate a considerable business and have an important impact on the development of transport activity in Slovenia (300,000 in 1999).

7.1. The Adriatic - Ionian Corridor

The great project (chance) which could influence the transport activities development is the planned construction of the Adriatic-Ionian motorway as a strategic pan-European corridor. The Adriatic-Ionian Corridor designates a traffic corridor along the north-eastern coast of the Adriatic and the Ionian Sea, from Trieste in Italy to Igoumenitsa in Greece in the length of 1100 km, which in the maritime, road, railway and air traffic has to secure / provide for/ the vital connections for the development of seven countries (Italy, Slovenia, Croatia, B&H, Montenegro, Albania and Greece).

Under the Croatian presidency the first experts meeting was held in Dubrovnik, on 17 January 2000, covering the topic of the Adriatic-Ionian motorway and the possibilities of its realisation through the Stability Pact, the priority being regional co-operation - the factor of development. There were participants from over ten countries, namely from Croatia, Bosnia and Herzegovina, Slovenia, Albania, Montenegro, Greece, representatives of the USA and EU, Austria, Turkey and Macedonia as well as the leading transport and road-building experts.

The goal was set, namely, to obtain the status of the strategic pan-European corridor for the Adriatic-Ionian motorway, which is only a precondition that would attract the leading European as well as global financial sources. The project's value is estimated at 5.6 billion Dollars.

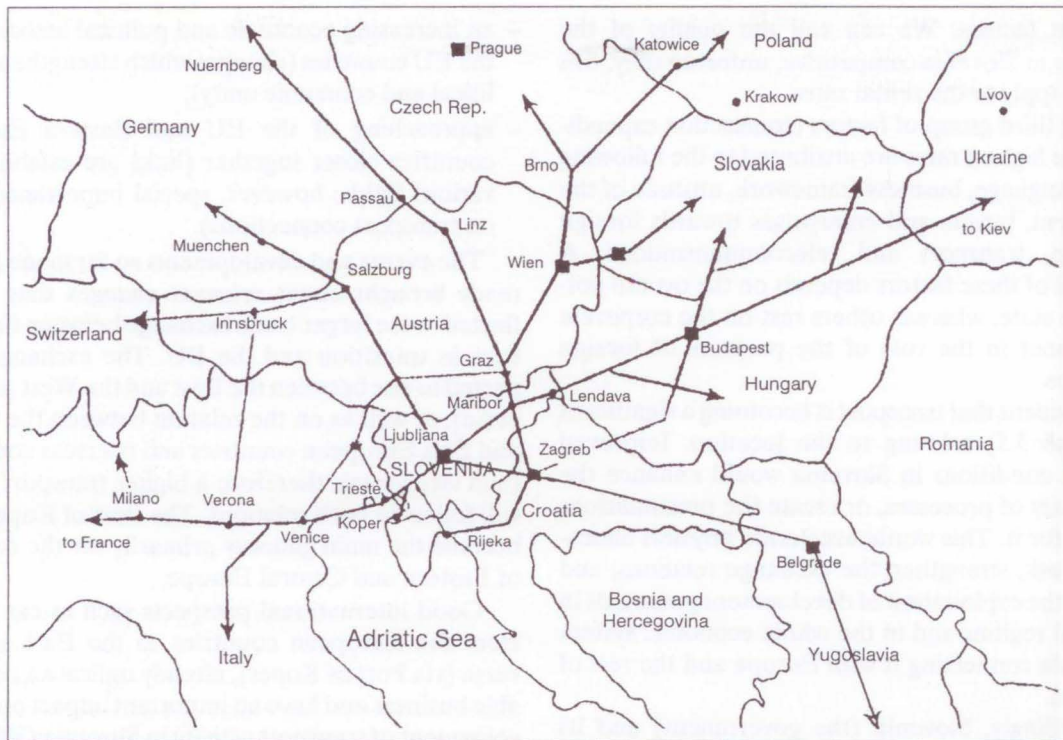


Figure 3 - Main transport corridors important for Slovenia

Source: EU

7.2. Lease of Pier VII in Trieste

Recent developments have shown that with effect of 1 February 2001, Luka Koper d.d. (Port of Koper Corp.) has been taking over the management (the 30-year concession) of Pier VII⁶ (T.I.C.T Trieste International Container Terminal - 49% share) in the Port of Trieste, and thus became 'included into the European Union ahead of time'.

Today, the Port of Koper has got the features of a third generation port, but it also endeavours to assert itself as the fourth generation port (unified administration Port of Koper- Trieste International Container Terminal). Strategic decisions taken by the Port of Koper as to lease the container terminal (Pier VII) in Trieste (after recent withdrawal of ECT), have to be considered in the light of global associating, alliances, concentration and co-operation in the world.

The management of the Container Terminal in Trieste presents an opportunity to realise of the plans of the Port of Koper regarding the growth of container turnover, mainly for the following reasons:

- developed road and railway infrastructure enable connections with advanced Central European markets (the hinterland of the Port of Koper);
- high share of national cargo;
- the status of a European port allows for easier cargo acquisition of certain groups (at present, the Port of Koper does not have the status of a European port and is therefore, due to customs duties, more

expensive for the European Union users than the Port of Trieste);

- the outfit and operation provide the conditions for an immediate launch of marketing activities;
- the terminal has modern technical equipment and has been constructed to receive large container ships.

8. CONCLUSION

The development of transport in each country is influenced by the natural and production resources, its integration into international flows, and by the formal position of the respective country, as defined by international agreements or treaties. Other influential role relates to the political and economic changes.

The changes in the structure of production and in economic operations and transactions, as currently characteristic for the European Union, are present also in Slovenia. Similarly, Slovenia takes part in the major changes in the political and social and economic field. The privatisation that is currently underway today, will change the manner of conduct in the business operation, chiefly in the sense of optimum use of the resources and optimum adjustment to the environment.

Slovenia is a country in its transitional period. In the future, the social and economic development of Slovenia will depend on proportionate development,

or progress, of regions and on the integration of Slovenia in a wider European space. One of the most important factors of this integration is transportation.

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POVZETEK

Za današnji čas so značilne pomembne in hitre spremembe pogojev v procesu trženja, transportu in izmenjavi informacij. Strateško vlogo v teh procesih imajo komunikacijsko-informacijski sistemi. Komunikacije se danes razvijajo z neverjetno hitrostjo, tako da govorimo o svetu razvitih komunikacij.

Trend, ki ga zasledimo v poslovnem življenju, je zelo zapleten. Istočasno stremimo h kolektivizaciji in k individualizaciji, saj se tako ustvarja svet kompetitivnosti in kooperativnosti. Od transportne in komunikacijske - informacijske mreže se pričakuje, da bo vedno bolj integrirana v sistem industrijske proizvodnje in storitev in da omogoči dinamično prilagajanje tržnim zahtevam.

Transportna infrastruktura in čezmejno sodelovanje dajejo pomemben razvojni impuls razvoju posameznih regij in Slovenije. V obdobju pred vključitvijo Slovenije v EU je potrebno pospešiti aktivnosti na obeh področjih. Odprte meje bodo vplivale na ekonomski razvoj, pospešeno konkurenco in sodelovanje med regijami in državami, kar bo povečalo pretok blaga, kapitala in storitev, ter zlasti izboljšalo mobilnost prebivalcev.

REFERENCES

1. Slovenian traffic cross: Šentilj - Maribor - Ljubljana - Koper, with branches towards the Hungarian border and in the South West to Nova Gorica; then direction Jesenice - Ljubljana - Dobova towards Zagreb. The first leg signifies the connection with the international line Barcelona - Milan - Ljubljana - Budapest - Kiev (5th corridor); the second leg denotes farther connection with Zagreb - Belgrade - the Balkan states - the Near East (10th corridor)
2. The Export-Import bank has issued the guarantee for one of the loans to build the three sections of the motor way Bregana - Zagreb - Dubrovnik, that is to be built by the Croatian Roads Board and the American Bechtel. According to the HAPU (Croatian Agency for Investment Promotion) there have been up to 870 Million Dollars of investments by the American investors in the years between 1993 to 1998.
3. Due to its role and importance for the whole socio-economic system transport is treated in professional literature and practice more and more as a part of logistically conceived process or the logistic chain of object flows. The factors of time, space, and information with respect to the exchanging of objects are today of the utmost importance. And this is the domain of logistics, which takes care of optimal exploitation of the said factors in exchanging processes. Logistics excellence represents greater buyer satisfaction, "less" traffic, better space-transport organisation and lower costs.

4. We can say that logistics is a typical child of systemic thinking. It integrates external and internal sources of competition. We no longer sell individual services, but a system.
5. In Slovenia the companies with foreign capital hold a share of mere 10.7% in the company capital, employ 8.1% of work force in the business sector. Foreign investors prefer to invest into trade and other related services, but already half of their investments in Slovenia prove to be in the manufacturing industry (car industry, paper, tobacco industry, tyre industry, industry of machines and of other devices, chemical industry, etc.). These companies seem to be more successful from those of merely domestic capital, seem to be more capital intensive and have greater share of means in machinery and equipment and a smaller share in non-productive means. The share of Austrians as far as the foreign investments in Slovenia are concerned amounts to 39%, that of the French to 13.4%, the German share amounts to 12.8%, that of the Italians 6.9%, the Czech to 5.6%, the British share is 5% and that of the Americans only 4.6%.
6. Pier Seven (Molo VII) is the most important structure of the Port of Trieste and is wholly designated for container transport. The operational quay is nearly one and a half km long, sea depth 18 m, which allows berth to the largest container ships. The handling capacity of Pier VII is 400,000 TEUs per year, and there is an area measuring 400,000 qm available, with 7 bigger bridges to load containers and several cranes. Container traffic is regulated on a special rail terminal, from which direct trains are forwarded to the intermodal terminal in Cervignano. Pier VII is directly connected to the motorway network.

LITERATURE

- [1] **Cooper, J.** and co-authors: *European logistics*, Blackwell, Oxford 1992
- [2] **Ihde B. G.:** *Transport, Verkehr, Logistik*, Verlag Vahlen, Munchen, 1984
- [3] **Porter, M. E.:** *The Competitive Advantage of Nations*, Free Press, New York, 1990
- [4] Report of the research carried out on the program URP for the year 1992, *Defining elements and measures of the traffic policy of Slovenia*, Institute for Transportation and Logistics EPF, Maribor, 1993
- [5] **Robertson, J:** *Future Wealth*, 1990, London
- [6] **Požar, D:** *Theory and Practice of Transportation and Logistics*, Publisher Obzorja, Maribor, 1985
- [7] **Trupac, I.:** *Transport - dejavnik povezovanja Slovenije in Evropske unije, (Transportation - a Factor Associating Slovenia with the EU, Doctoral Dissertation, 1997)*
- [8] **Trupac, I.:** *Logistics integrates - in theory and practice.* Proceedings I International Conference on Traffic Science, Portorož, 1997
- [9] **Žižmond, E.:** *Ekonomika narodnega gospodarstva, (Economics of National Commerce and Industry)*, DZS, Ljubljana, 1993.