

## Research into International Competitiveness in 2000–2008

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*KTU Department of Economics and International Trade carried out the research in 1999 – 2008 that created the background for the teaching of masters and doctors in Economics and Management programs at the Department. In the period of 1999 – 2008 the journal “Engineering Economics” has accepted 85 articles, written by the researchers of the Department. All the articles may be classified according to the fields of analysis into following four groups: international competitiveness of nations and companies; competition environment and international trade features in specific industries and markets; international finance and investments and risk management; economic cycles and foreign debt control.*

*Because of the space limitations the aim of this article is to cover the first two topics with the hope to analyze the other two in the next paper.*

*International competitiveness of nations and companies is discussed in 8 articles.*

*It was found that competition intensity can be described by these main factors: market shares distribution, market rate of growth, market profitability. The first factor – market shares distribution – is analyzed by using mathematical-statistical methods, Stackelberg market classification and graphics market shares interpretation. The second factor – market rate of growth – can be explained in such way: when market rate of growth higher, then market capacity is bigger, and competition is not so high, and vice versa. Another way for the evaluation of the second factor can be the concept of demand for product life cycle. The third factor – market profitability – can be explained in such way: when market profitability is higher, then sellers can get higher profit and this means that competition of this market becomes higher. The competitiveness management information system maintenance includes such blocks: product line description, market segments characteristics description, market competition intensity level, product demand life cycle stage. Cluster based economic development is the key to regional competitiveness. Cluster Based Regional Competitiveness Development Model has five stages: mobilisation, cluster development, diagnosis, collaborative strategy and implementation.*

*Competition environment and international trade features in specific industries and markets is discussed in 17 articles. It is shown that Baltic States are competing exporters of similar sectors of commodities. While demand in Eastern markets is shrinking, export conditions to the EU countries are getting more attractive. This encourages Baltic States exports to the EU. Lithuania is exporting*

*mineral products, textiles and textile article, machinery, mechanical appliances and electrical equipment, products of chemical industries. Latvia and Estonia keep strong export positions in these sectors too. The EU internal market is supposed to be an area without any trade barriers, but there is still much to do achieving really unhampered flow of goods and services in Europe. It was found that the legal basis of the EU permits the possibility to misuse health and safety requirements as a hamper of full economic integration of the expanding EU family.*

*Keywords: international competitiveness, international trade, clusters, forecasting, transaction costs, industrial policy, technical barriers to trade, non-tariff barriers to trade, knowledge outsourcing.*

### Introduction

Faculty of KTU Economics and International Trade Department Research in 1999 – 2008 has created the background for the teaching of masters and doctors in Economics and Management programs at the Department.

The Department has been created in 1999 on the basis of the Economics Department of The Faculty of Economics and Management of Kaunas University of Technology (KTU).

The journal “Engineering Economics” was the place for the publication of the numerous results of the research, performed by the faculty of the Department.

In the period of 1999 – 2008 the “Engineering Economics” has accepted 85 articles, written by the faculty of the Department.

All the papers may be classified according to the fields of analysis into the following four groups:

1. International competitiveness of nations and companies;
2. Competition environment and international trade features in specific industries and markets;
3. International finance and investments and risk management;
4. Economic cycles and foreign debt control.

**The aim of this article** is to cover the first two topics with the hope to analyze the other two in the next paper.

**The methods of scientific investigations:** comparative analysis of scientific literature, critical analysis, systematization, generalization.

## **International competitiveness of nations and companies**

Chronologically, the first paper in this field – “Competition research and competitiveness management information system maintenance” (Snieška, V., Šliburytė, L. (2000)) analyzed competition research ways and methods assigned to evaluate one of the most important competition indication – competition intensity level in different markets and to find out what kind of information is necessary for competitiveness management information system maintenance.

The research object of this article – competition intensity factors in market, competitiveness management information system maintenance. Competition intensity can be described by these main factors: market shares distribution, market rate of growth, market profitability. The first factor – market shares distribution is analyzed by using mathematical-statistical methods, Stackelberg market classification and graphics market shares interpretation. The second factor – market rate of growth – can be explained in such way: when market rate of growth higher, then market capacity is bigger and competition is not so high, and vice versa. Another way for evaluation of the second factor can be the concept of demand for product life cycle. The third factor – market profitability, can be explained in such way: as market profitability is higher, then sellers can get higher profit and this is means that competition of this market become higher. The competitiveness management information system maintenance includes such blocks: product line description, market segments characteristics description, market competition intensity level, product demand life cycle stage.

Maksvytienė, I. and Urbonas, J. (2001) in the article “Structure and Powers of a Competitive Ability Model of an Enterprise” write that a conception of competition is estimated and the conclusion is made that it does not correspond to the content of present economy. The analysis showed that there are two conceptions of the phenomenon, which explain competition both as a process and as a corresponding structure of market powers. The authors of the article maintain that the economic reality is rather a synthesis of these two models. A competitive ability model where the forces, that form it, are grouped into a system, has been presented by the authors.

Kvainauskaitė, V., Snieška, V. (2002). In the article “Forecastic Evaluation of the Influence of Lithuania’s Business Structure Development Tendencies to Regional Economic Growth.” analyzed the main aspects of regional economic growth theories, the compatibility of the regularities of modern regional growth with Lithuania’s business structure development.

The regularities of regional development described in theoretical works were expected to appear in Lithuania as well. One of the subjects of economic growth analysis should be the evaluation of Lithuania’s business structure development tendencies. However, the characteristics of the Lithuania’s business structure focusing on the model of development have never been analyzed. Forecasted evaluation of the influence of Lithuania’s business structure development tendencies on regional economic growth showed that unfavourable social and economic conditions

hinder the effective growth and development of business structures in the peripheral regions, which limits the participation of small and medium-sized businesses in promoting characteristic features of economic development, that are described in modern models of development in Lithuania.

In the article “Forecasting Methods in the Context of Market Demand Forecasts” Snieška, V., Snieškienė, G. (2002) hold, that forecasting is a basic to operations decisions because projections indicate when decisions are needed, determine which alternatives are reasonable, and help to indicate which alternative solution to a problem should be selected. Causal models that use regression to express the relationship between demand and some economic index or other variable can be used for forecasting. Regression analysis is useful to determine trends in time series analysis, which can be extended for estimates of long-range changes. Regression can also be used to estimate the relationship between sales and some indexes of economic activity.

Snieška, V., Činčikaitė, J., Neverauskas, B. (the article “Clusters: A Key to Regional Competitiveness”, 2002) found that cluster based economic development is the key to regional competitiveness. An industrial cluster is a geographic concentration of competitive firms or establishments in the same industry that either have close buy sell relationships with other industries in the region, use common technologies or share a specialised labour pool that provides firms with a competitive advantage over the same industry in other places. The cluster framework can be a valuable tool for an effective economic change because it is market driven, inclusive, collaborative, strategic and value creating. Cluster Based Regional Competitiveness Development Model has five stages: mobilisation, cluster development, diagnosis, collaborative strategy and implementation. The cluster based approach can increase regional competitiveness and speed up economic development.

Kvainauskaitė, V., Snieška, V., Valančienė, L. (in the article “Competitive Market Demand Forecasting”, 2003) proved that competitive market demand forecasting depends on the way market demand is influenced by various factors reflecting structural and macro environmental characteristics of market economy.

The principles of market demand estimation formulated in the available economic research publications have mainly to do with different managerial aspects focusing on the peculiarities of various methods used for market investigation as well as their implementation possibilities, and pointing out traditional factors that have influence upon demand investigation of a definite market, leaving out, however, any deep analysis of systematic principles of market demand estimation in the competitive market. Market demand forecasts worked out exceptionally by statistical methods often ignore the influence of qualitative factors of both macro environment and industry environment upon the competitive market demand.

There has not yet been formed any common conception of competitive market demand forecasting in contemporary economic research, which would enable exhaustive estimation of external environment of the market and work out market demand forecasts. The offered models of

market demand forecasting confine themselves to the analysis of either different markets or different usage aspects of forecasting methods.

The chief goal of this research was to create a model of competitive market demand forecasting which would include market demand estimation with emphasis on the influence of both macro environment and industry environment on the one hand, and forecasting based on the analysis of quantitative data sequences on the other; in other words, a model that would ensure the reliability of market demand in competitive market.

The research of theoretical aspects of competitive market demand forecasting led to the conclusion that in various economic studies there is provided a number of detailed recommendations of quantitative use of forecasting methods while the importance of qualitative forecasting is not given any serious attention. Despite the fact that most authors accept the idea of complex use of both quantitative and qualitative methods, they express two different points of view as to the priority of their use. One group of researchers insist on the priority of quantitative methods with the use of qualitative ones as a supplementary or alternative means; the other group of scholars express an opinion that equivalent synthesis of quantitative and qualitative forecasting could guarantee both reliability and informative value of forecasts. The research of competitive market demand forecasting structures revealed the fact that market demand forecasting is treated either as an obligatory part of industry demand forecasting process or as an external environment forecasting process. An integral point of view concerning the above aspects is evidently missing, the provided forecasting structures are too static, the constituent structural elements under analysis vary in number with no reasonable motivation provided.

The authors proposed the basic structure of a competitive market demand estimation and forecasting model which includes such stages as formulation of aims and objectives, estimation of competitive market environment and its influencing factors, determination of essential factors of competitive market forecasting environment, choice of forecasting method, quantitative and qualitative forecasting, forecasting accuracy estimation and market demand forecast development.

Sabonienė, A. (the article "Lithuanian Industrial Policy by the Aspects of International Competitiveness", 2003) stated, that globalization and economic integration to the EU has highlighted problems of Lithuanian industry and the whole economy competitiveness.

The case for industrial policy is based on the observation that markets may fail to stimulate firms to behave in the way that would be beneficial to economy as a whole. There are different cases of market failure barriers to entry; positive externalities; negative externalities; risk and uncertainty.

Industrial policy should judge three problems:

- to reduce cases of market failure; for instance, then firms decrease investments in R&D because they fear that they will not be able to appropriate the results of their effort;
- to strengthen the factors that are the basis of competitive advantages and competitiveness;

- to manage structural adjustment. State intervention that stimulates and moderates capacity reduction in sunset industries, thus inhibiting a chaotic, overly destructive adjustment process.

Lithuanian Industry Policy should aim at correcting market failure, particularly in the field of R&D and environmental damage, at strengthening specialized factors in industrial locations, and at managing industrial adjustment. Significant attention is paid to comparative advantages of creating and strengthening industrial companies and branches. This paper analyses Lithuanian Industry Policy conducting problems in the context of economic integration to the EU and globalization in the changing economic conditions in Lithuania.

Maksvytienė, I., Urbonas, J. (the article "Forming Features and Stages of International Economic Competitiveness", 2003) have paid great attention to a theoretical and practical problems of international competition in the East and Central European countries and Lithuania.

International competition in macro level is explained by the advantages of national economy and its essence and reasons are interpreted in a very different and contradictory way. Such points of view are distinguished in economic literature: international competitiveness is macroeconomic phenomenon in a state and it is formed by course of exchange, norms of interests, balance of foreign trade; international competitiveness of a state is predetermined by the existence of a cheap high-qualified manpower that allows to make production for export using lower expenses and to sell it in different markets of the world for lower prices; international competitiveness of a country depends upon abundance of existing natural resources and utilisation expenses; international competitiveness of a state is predetermined by the nature of its foreign economics policy: purposeful programs of economic relations, stimulation of export and hindering of import, application of quota policy, subsidies and other means of policy of protectionism; international competitiveness of a state is quarantined by the existence of direct regulation fulfilled by the organs of power and government in the sphere of economic structure and dynamics, various branches of production and many enterprises, existence of state sector of economics.

The opinion of the authors is that there are no special reasons of international competitiveness that could define the essence of competition and its contents. Economic literature speaks more about the influence of special conditions and factors on the level of international competitiveness. How well could we evaluate macroeconomic level of international economic relations? In fact we must say that international competitiveness is being formed in the level of the main subjects of economic system, that is in the level of relations of international producer and international consumer. In all cases the direct and primary subject of international competitiveness is the enterprise of business, and the object of competitiveness is goods produced by that enterprise; these goods are offered to the world consumer directly or with the help of a mediator.

A major course of industry structural change is technological innovations of various types and origins. Innovation in product is an important type. Product innovation can widen the market and hence promote

industry growth or it can enhance product differentiation. Innovations may require new marketing, distribution or manufacturing methods that change economics of scale or other mobility barriers. Other feature is that factors of production and their use conditions take place in equalisation between countries. National and international enterprises look for resources and sell their goods in all markets of the world. Internationalisation of economic relations and globalisation of international competitiveness strategies take place.

The evolution of international competition is peculiar to national economic competitiveness stages. The authors consider, national international competitiveness to have four stages: factors of production and costs; fast growth investment and effectiveness; new innovations and new technologies; processes of world economy internationalization.

General analysis of international competitiveness of nations and companies was followed by deeper analysis of Competition environment and international trade features in specific industries and markets.

### **Competition environment and international trade features in specific industries and markets**

One of the first steps in creating market economy in Lithuania was the creation of the banking system in Lithuania.

Kraujalis, Š., Snieška, V. (the article “Changing Competition in the Lithuanian Banking Market and its Impact on Investment Activities”, 2000) analyzed recent changes in the Lithuanian banking market. Changing competition, ways of assessing competition in the banking market are discussed.

Banking competition is analyzed according to these groups of factors:

- banking market concentration indices;
- financial strength of the banking system;
- the use of banking assets in different financial fields and foreign markets;
- changes in the prices of services;
- activity of foreign banks.

To measure the degree of concentration in a banking market we examine three indices of concentration:

- Number of depository institutions.
- Herfindahl-Hirschmann Index (HHI).
- Four-firm concentration measure (C4).

HHI almost doubled in Lithuanian loans and deposits market in 1996 – 1999. C4 index has grown from 64.6% to 86.6% in loans market and from 60.9% to 89.6% in deposits market. Since the end of 1993 constant reduction of depository institutions in the Lithuanian banking market is observed. 28 depository institutions operated at the end of 1993, while at the end of 1999 only 10.

Additional research of HHI was done, state banks as one group. In this case HHI of the Lithuanian loans market diminished from 3224 to 2818. Lithuanian deposits market HHI grew from 2621 to 3342. Different trends indicate diminishing relative importance of state banks in the loans market.

Banking financial strength measures are:

- Assets.
- Capital and reserves.

- Number of branches in Lithuanian banks.

Lithuanian banks assets almost doubled in the period of 1995 – 1999. Capital and reserves more than tripled in the period of 1997 – 1999. Number of branches in Lithuanian banks is constantly diminishing since 1994.

Lithuanian banks activity in non-traditional markets fell in the period of 1997 – 1999. In the same period assets of Lithuanian banks grew in foreign countries. Analyzed assets of Lithuanian banks in foreign countries has grown from 1.7% to 4.1%.

Growing foreign banks competition in the Lithuanian banking market has positive effects on expansion of financial services.

This research led the authors to such conclusions:

1. Many of the applied indices indicate growing competition in the loan market of Lithuania.

2. Lower barriers for foreign entrants to the Lithuanian banking market and Lithuania’s integration to the EU lead to prognoses of the further banking consolidation and of the growing activity of foreign competitors.

3. Growing competition in the loans market results in higher activity of the Lithuanian banks in securities market.

Competition of foreign banks urges Lithuanian banks to provide more services for their clients in securities market.

Dumčiuvienė, D. (the article “Structure – Conduct – Performance Approach of the Lithuanian Industry”, 2001) writes about the SCP approach used to study Lithuanian beer industry structure. To determine the market structure, concentration ratio CR(4), the number of companies and the number of employees were analysed in the beer industry. The characteristics of behavior, such as pricing and investment, were analysed as well. Industry performance is defined as profitability, wages and production. The relations and interaction among Structure – Behavior – Performance in the characteristics and the role of foreign competition were analysed as well.

Pukelienė, V., Sabonienė, A. (the article “Lithuanian and Latvian/Estonian Export Competitiveness on International Markets”, 2001) analyse methods and indicators of competitiveness, similarity of Lithuanian and other Baltic States export structure is done in relation to international and EU markets.

It is shown that Baltic States are competing exporters of similar sectors of commodities. While demand in Eastern markets is shrinking, export conditions to EU countries are getting more attractive. This encourages Baltic States exports to the EU. Lithuania exports mineral products, textiles and textile article, machinery, mechanical appliances and electrical equipment, products of chemical industries. Latvia and Estonia keep strong export positions in these sectors too.

This model proved valuable in studying competitiveness of Lithuanian industries, it can be applied in forecasting tendencies in industries.

Labanauskaitė, D., Urbonas, J. A. (the article “Impact of Tourism on Employment and its Assessment Possibilities”, 2002) investigate impact of international tourism upon employment. In 1994 more than 200 million people were employed in jobs directly or indirectly related to the tourist industry. This accounts for more than 10.6 %

of the world workforce. The growth of tourism creates new opportunities irrespectively of the county's development level. Major influence of tourism can be quite striking in many small countries, which essentially are dependant upon this industry. In these countries, more than 50 % of all the able-bodied population is involved in the business directly or indirectly related to the tourist industry during certain seasons.

In the sixties and seventies of the 20th century the possibilities of creating new jobs in the tourist industry commanded especially big interest. A number of current and prospective jobs is one of the material indications that testify the contribution of the industry to the national economy. In the evaluation of employment in the tourist industry, there are a number of flaws directly related to the complex concept of the tourist industry. The objective estimation of the employment in the tourist industry is made complicated by the specific employment manner and relations of tourism to other branches of economy.

Gatautis, R., Neverauskas, B., Snieška, V. (the article "Internet Influence on Transaction Costs and Intermediation", 2002) analyse transaction costs in market without intermediaries, intermediary market, information technologies influence transaction cost and intermediation. The article considers that a popular opinion about electronic commerce increase disintermediation is not reasonable.

The suppliers, consumers or both of them can incur transaction costs. The effect of the transaction cost is to decrease the quantity exchanged between supplier and consumer regardless of who absorbs the costs.

The intermediary changes the transaction costs of a market by buying from suppliers at one price and selling to a consumer at a different price. Intermediaries may be in better position to lower transaction costs than a supplier or a consumer. Since the intermediary is involved in many repeated transactions, they develop a set of relations and experience that may lower the transaction cost. Furthermore, intermediary could invest in technology that requires a large fixed cost, but reduces the marginal cost for additional transactions. The intermediary can then amortize the fixed cost over large number of transaction. Although intermediaries lower transaction costs, it is not clear what roles or what values they provide.

Internet can be used for transaction cost minimization through different types of intermediaries: Internet supplemented direct market, disintermediation, extraintermediation, reintermediation. The role played by intermediaries in the exchange process is a multifaceted set of functions, which are likely to be impacted differentially, and some will not be affected at all by any electronic service provided by the Internet.

Dumčiuvienė, D., Narbutienė, N. (the article "The Impact of the EU Enlargement on its Labour Markets and Employment", 2002) analyse possible consequences and changes in the EU labour markets. The first part of this paper deals with the theoretical HOS model which is not suitable to evaluate the proper impact of EU enlargement due to different levels of technologies, profit, and factors mobility, and so on. The second part deals with the analysis of the impact of trade, labour migration and the movement of capital on labour markets and industrial sectors. The changes during the last 10 years have no

economy-wide impact on relative labour markets in the present EU despite the removal barriers for trade and movement of capital.

Snieška, V., Zigmantavičienė, A., Daugėla, V. (the article "Nontariff Barriers in the International Trade of Textile", 2002) state that the liberalisation of the world international trade accelerated by the enlargement of the World Trade Organization and European Union including related agreements influence the tariff barriers of trade. Therefore the importance of nontariff trade barriers is increasing because of the market protection from governments and business side as well as growing market requirements for safety, health and environmental issues.

Facing constant changes in the market, it is noted the disappearance and transformation of well-known traditional nontariff barriers on one hand and the strengthened/developing of the new ones on the other are noted.

The article provides a study on nontariff international trade barriers and their influence in the case of textile industry as one of the sensitive sectors historically effected by most of the trade barriers.

It covers quotas, export subsidies, dumping, administrative nontariff trade barriers and concentrates on technical requirements such as New Approach Directives, CE marking, quality management system, eco labelling, the Clean Clothes Campaigns including social accountability, fair trade labeling, codes of conduct. These are indicated as new protectionism the criteria of which are also significant as there is a tendency of authorities to use them as a basis for regulation, public purchasing policy or other policies. The administrative barriers are observed in the very ordinary manner as based on real experience of the companies.

The article states the rapid development of new kind nontariff barriers, discovers their modern shapes, and demonstrates their efficiency in different appearances.

Navickas, V., Bačkaitis, D., Bagdonaitė, R. (the article "Market Share Analysis of the Firm and its Competitors in Lithuanian Beer Industry", 2002) analyzed the changes of market share in Lithuania beer industry during the period of 1997 – 2001.

The authors set and solve these tasks:

- determine market share distribution of breweries in Lithuanian beer market according to sales and turnover;
- determine in which price segment firm is operating;
- establish influence ratios on market share change of firm and its competitors activity,
- measure influence of price strategy factors to market share change of firm and competitors.

The main conclusions done:

Market shares of Lithuanian breweries were changing because of sales and market cover changes.

Lithuanian breweries are operating in medium and high price segments.

"Kalnapilis" has lost market share because of its own and competitor's activity, "Švyturys" has increased market share with its own activity.

Firm's market shares changed with sales changes – the market shares changed according to exclusively the firm's price policy, not competitors.

Market share did not change according to the number of consumers – it changed only according to the market

cover and was due to the value of consumers' acquired production.

Valuckaitė, A., Snieška, V. (the article "Pricing of Export Products", 2003) write about successful export operations often depending on the information about all the conditions in the foreign market. Lithuanian exporters seek for foreign market share and try to be competitive using export prices. That is why for Lithuanian exporter the most important question is how to set an export price.

Export prices can be influenced by various factors. Paying attention to the most important factors which affect price and using pricing methods, we can set an export price. The most common methods of pricing exports are cost, demand and competition oriented pricing.

Export prices involve all the normal costs of production, promotions and transport, plus special pricing requirements of the particular market concerned. To be able to determine the optimal export price, one must obtain an estimate of the responsiveness of the quantity demanded by the product to price changes. There are a number of methods of estimating demand having its advantages and limitations. Under competition oriented pricing, prices are set on the basis of what the firm's competitors are charging.

Industrial pricing schemes do not incorporate currency considerations explicitly. Currency consideration is a critical component of pricing that will gain importance as global competition among exporters intensifies. If currency rates fluctuate, the exporter may get losses.

The main purpose of this work is to find ways how to set a competitive export price to Lithuanian exporter and to find out the main factors affecting price.

Startienė, G., Genytė, S. (the article "Competitive Environment in Lithuanian Milk Processing Sector", 2004) deals with the problems of competitive environment. There is presented the theoretical comparison of the concept of external competitive environment given by various authors, as well as the evaluation of macro-environmental factors influencing competitive surrounding of Lithuanian dairy production, and the analysis of concentration and structural changes in Lithuanian milk processing sector.

Competition models have been supplemented stressing not the fight of the market subjects, but economic situation and forces, forming market structure and predetermining their decisions. The beginnings of these models are closely connected with the theory of economic equilibrium, perfect competition, monopolies and oligopolies static models in which competition is not yet analysed as a process, and competitiveness as the result of this.

The analysis of the concept of external competitive environment provides the opportunity to single out two levels of this evaluation:

- The first level is distinguished as macro environment. It is distant, general or social environment. According to most researchers, it includes very similar elements: economic, social, political, technological, ecological environments.

- The second level is competitive or activity ecology. It is based on M. E. Porter's model of five competitive forces.

Lithuanian milk processing sector has been chosen as an object of competitive environment analysis. The authors

aimed at evaluating the present situation in Lithuanian milk processing sector establishing concentration dynamics of this sector and carrying out the analysis of the competitive environment of Lithuanian dairies. Research results have shown these tendencies:

- Agricultural reforms have changed milk production structure: specific weight of farmers' produced milk has increased, and farms undergo the process of their expansion.

- Milk production productivity increases, however, it is even 34 per cent less than the average number in EU countries.

- Stiff competition among milk processing enterprises in the interior market, liberalization of purchasing prices, decreased world prices for dairy products, and relating Litas to euro, as well as reduced USD rate of exchange have conditioned the decrease of milk purchasing prices.

- The analysis of concentration rate dynamics manifests the increase in milk processing sector which resulted in the domination of the three biggest enterprises, joint-stock companies "Rokiškio sūris", "Pieno žvaigždės" and "Žemaitijos pienas". In 2002 CR (3) comprised 87 per cent.

The influence of macro-environmental factors on Lithuanian milk processing enterprises and their competitive environment is contradictory: on the one hand increased milk products consumption slackens competition in the internal market because it enables to increase purchasing but not to decrease competitive market part; on the other hand, the introduction of new technologies and market liberalization increase competition among milk processing enterprises in the market; furthermore, quality improvement of milk products, investment stimulation using EU structural funds intensifies competitiveness in the international market.

Krutejevaitė-Rimkevičienė, A., Urbonas, J. (the article "European Market and Still Remaining Barriers to Genuinely Free Movement of Goods: the Role of Technical Regulations", 2004) analyze the metamorphosis of understanding trade in Europe: from Antics, from the first systemized economic attitudes in early middle ages through mercantilists and Adam Smith who laid down the basement of classical political economy. Free trade was considered as one of motive powers in the whole economic process.

Few countries are really approaching completely free trade. In particular not European but the Asian city-state of Hong-Kong was the only modern economy with no tariffs, no import quotas and with no latent protection indeed, but this changed in 1997 when the government reverted to China, which is fairly protectionist.

Europe has an equivocal position concerning the issue of trade policy. Seeking to abolish remaining barriers to free movement of goods inside the internal market EU is pursuing a fairly protectionist trade policy with third countries.

The European Union, which has the most recent literature and plenty of scientific researches about technical barriers to trade and the costs caused by all these restrictions, reducing all trade hampers between the EC member states still has comparatively high external autonomous\* tariffs, especially for agricultural products

and uses them to subsidise its farmers. However, there still are obstacles to genuinely common European internal market. Some of them are those of natural origin, such as prevalent customs and traditions or geographical distance, some are man-made but have weighty reasons to be kept, i.e. on the grounds of public morality, public policy or public security, and are not the very topic of economists.

Therefore the problem is that the EU governments not only have some possibilities to purposely protect their producers inside the single market but that they still use to do that.

The subject of further analysis is the evolution of understanding of the trade in Europe and the role of technical regulations in the Single European market.

The aim of the article was to survey the metamorphosis of trade theory in Europe; to analyze our time situation in the Single European Market: remaining legal basis for protectionism and the economic effects of such policy; to compare qualitative, or technical barriers to trade with tariffs.

The EU internal market is supposed to be an area without any trade barriers, but there is still much to do achieving really unhampered flow of goods and services in Europe. The legal basis of the EU permits the possibility to misuse health and safety requirements as a hamper of full economic integration of the expanding EU family.

If to compare qualitative, or technical barriers to trade (like incompatible standards or obligatory third-party certification) with tariffs technical barriers to free trade have more negative effects for the national welfare

The European Unions still has a lot of work to do by guarantying an unhampered flow of goods and services in the EU internal market.

Kvainauskaitė, V., Šarapovas, T., Cvilikas, A. (the article "Selection and Assessment of E commerce Models in SMEs", 2005) state, that small and medium-sized enterprises, defined as firms employing up to 250 people, are the backbone of the European business community, generating half of gross product and therefore are the main targets for the adoption of electronic commerce models, at this time intensively being integrated in almost all types of business. Electronic commerce is treated as one of the most efficient tools for business processes optimization, based on more effective control of information management. So electronic commerce can be compared to other traditional forms of competitive advantages, but the main difference in this case is the importance of information technologies base for electronic commerce adaptation. But these new business opportunities have a very specific dimension for small and medium enterprises because of their size, financial abilities and relatively small turnover. The paper aims to analyze the possibilities to integrate the electronic commerce models in small and medium enterprises, defining the main factors that influence the electronic commerce integration and their significance to successful small and medium business approach to electronic commerce usage.

The spread of e commerce in various economy sectors is related to the modern business characteristics: huge and constantly growing competition, decreasing variety of competitive advantages, durable treatment of profit, as the result of cost reduction. Traditional competitive advantages

like modern technologies, low cost level or suitable geographical location become less significant because of globalization process. For this reason companies are looking for new efficiency increase possibilities.

The effort of small and medium enterprises in the context of e commerce integration in business is mostly limited by the adoption of traditional information technologies (e-mail, internet, web page), but for the reason of effective e commerce use in business it is necessary to integrate the higher-level e commerce decisions: e-markets, catalogues, etc.

Small and medium enterprises can use the potential of e commerce in three directions, adopting business-to-business, business-to-customers and business-to-government e commerce models.

The main success factors of e commerce integration to small and medium enterprises are: competition, financial resources, market structure, qualification, information technologies. Adopting e commerce business-to-customers model in a small and medium business, there appears the high importance of the spread of internet, government's support, customers' pressure and partnership relations. Adopting business-to-business model, the main impact is asserted by such factors as supplier's pressure/support and relations with suppliers. The success of business-to-government model integration mostly depends on the public offices' decision to use this model for the communication with business units.

Zigmantavičienė, A., Snieška, V. (the article "Methods of Measurement of Non-tariff Barriers in the International Textile Trade", 2006) analyze modern international trade in the process of constant trade liberalization in goods and services: now when tariff barriers have been substantially reduced or eliminated there has been an increasing interest in the ways that non-tariff barriers might restrict or distort international trade and its dynamic. The policy of trade liberalization is changing the picture of world import and export trade. The end of quotas and import taxes are bringing to a finale a process of liberalization that started in 1995 with the aim of integrating the textile and clothing sector into GATT. The main emphasis of it was to gradually reduce quotas as the most influential non-tariff trade barrier within 10 years period of time ending in January 1, 2005. Furthermore, the traditional non-tariff barriers to trade found replacement by modern trade distortions. The article studies different methods to measure nontariff barriers and analyses those most suitable to indicate the influence of non-tariff barriers in the international textile trade. At first the article presents one of the most frequently used classifications (typology) of non-tariff barriers employed to control international trade and introduces general methods for measuring the presence or size of nontariff barriers. The main part of the study is dedicated to those trade restrictions most efficient in the context of international textile trade: quantity impact measures, frequency measures and price comparison measures. The analysis of the main methods of measurement of non-tariff barriers as well as the summary of the findings from the other researches brings to the conclusion that regardless of a number of difficulties the theoretic and empiric analysis has developed and it opens the opportunity to choose a corresponding trade policy to

protect separate industries. It also admits that estimating tariff and subsidies equivalents and comparing them with price changes before and after the introduction of a barrier might be the best method of measurement of non-tariff barrier. The empiric test is carried out in order to prove this proposition. The object of the research is the comparable analysis of consumer prices indexes including clothing and shoes in Norway, Sweden, representing European Union and USA. The outcome of the research confirms that gradual reduction of tariff rates in the international textile trade in 1995-2004 is proportional to the drop in prices on textile and clothing products. Acknowledging difficulties the article concludes that there is no the only best method absolutely efficient for measuring the presence or size of non-tariff barriers in textile and clothing sector. Every method discussed in the study depending on the aim of measurement of non-tariff barriers might be used.

The broadest definition of a non-tariff barrier is any measure other than a tariff that distorts trade (Linkins, 2002). There are no problems to measure tariff barriers to trade because of their defined size but it is not the case with non-tariff barriers because of the lack of actual, precise data. United Nations Conference on Trade and Development (UNCTAD) trade analysis and information system provides a comprehensive list of non-tariff barriers classified according to trade control measures. The measures fall into five broad categories: • price control measures, administrative pricing (minimum import prices, administrative pricing, voluntary export price restraint (variable levies, variable 14 components, compensatory elements, flexible import fees, variable charges), antidumping measures (antidumping investigations, duties, price undertakings); • finance measures: advance payment requirements (advance import deposit, cash margin requirement, advance payment of customs duties, refundable deposits for sensitive product categories, multiple exchange rates, restrictive official foreign exchange allocation (prohibition of foreign exchange allocation, bank authorization, transfer delays, queuing); • quantity control measures: non-automatic licensing (license with no specific ex-ante criteria, license for selected purchasers, license for specified use, license linked with local production (purchase of local goods, local content requirement, barter or counter trade), license combined with or replaced by special import authorization, prior authorization for sensitive product categories, license for political reasons; quotas: global quotas (unallocated, allocated to exporting countries), bilateral, seasonal, linked with export performance, linked with purchase of local goods, quotas for sensitive product categories, for political reasons; prohibitions: total, seasonal, temporary prohibition, suspension of issuance of licenses, import diversification, prohibition for political reasons (embargo), etc.; export restraint arrangements: voluntary export restraint arrangements, multifibre arrangement (MFA): quota agreement, consultation agreement, administrative co-operation agreement, export restraint, etc.; enterprise-specific restrictions: selective approval of importers, enterprise-specific quota; • monopolistic measures: single channel for imports (state trading administration, sole importing agency), compulsory national services (compulsory national insurance, transport); • technical

measures (technical regulations): requirements for product characteristics, marking, labeling, packaging, testing, inspection and quarantine, information, requirement to pass through specified customs, etc., – pre-shipment inspection, special customs formalities, return obligation.

Scientific resources provide various methods developed to estimate the non-tariff barriers and their economic effect. This survey focuses on the analysis of general methods for measuring non-tariff barriers in the context of textile international trade.

Non-tariff trade barriers are very diversified and complex, the same products could be differently applicable to the Harmonized System commodity categories and cause inaccuracy in statistic data evaluating the presence or size of non-tariff barriers.

Non-tariff barriers could be measured as equivalent to tariff barriers, estimating them in terms of value. Price-change measures are based on price difference. “With“ and “without“ trade barrier allows a direct comparison of an effect of tariff and non-tariff barrier.

Reduced tariff rates are reflected immediately in lower clothing prices. Empiric research indicates the short term, one percentage point reduction in the tariff rate results in a proportional one percent lower rise in clothing prices.

However, this long-term relationship may change because of some factors, such as transport costs, the continued existence of trade barriers and domestic competition.

The research indicates that price comparison method, perhaps, is the best for measuring the presence or size of non-tariff barriers in international textile trade as it allows to compare tariff and non-tariff trade barriers effects and relies on direct primary data.

Measuring the presence or size of a particular trade barrier, first advise would be to analyze the availability of data resources directly related to the barrier and then to select a specific method.

This survey outlines that there is no the only perfect method to rely on measuring the non-tariff barriers. Referring to the purpose of measurement of non-tariff barriers, it is appropriate to use any specific method presented in the article.

The time series of daily mean electricity prices which have been formed in European Power Exchanges are analyzed in the article “Correlation of Electricity Prices in European Wholesale Power Markets” by Bobinaite, V., Juozapaviciene, A., Snieška, V. (2006).

The objective of this work is to characterize the degree of correlation between prices in wholesale power markets, which are defined as environment where electricity generators and distributors deal. In a competitive environment these prices can be determined by supply and demand functions and are influenced by various factors, such as fuel prices, temperature, wind speed, precipitations, CO<sub>2</sub> and economic growth. Additive regression model was used in order to estimate the relationship between prices in European wholesale markets.

Correlation and regression analysis proved that bulk prices of electricity in Europe are heavily related but there are first initial steps of such correlation, although market design is similar among countries and there is an increase in spot market volume, where liquidity and foreign trade

take place. Price analysis showed that wholesale prices in Finland, Sweden and Norway are lower than in other European power markets. It is not surprising, because the large proportion of energy is generated in hydro plants. On the other hand, wholesale prices are very volatile in Germany, France and, as it was seen, prices started to rise since the beginning of 2005.

Since market design is important in the analysis of power prices because it reflects price formation mechanism and for this reason influences behavior of market players, therefore in this article market structure is defined according to such criteria. Energy trade may be analysed in regard to marketplace, discussing trade on power exchange and OTC market. Analysing market structure of electricity, trade abundance, variety and suitability of products offered in this market should be analysed. Analysing relations among energy wholesale prices, it is recommended to discuss variety of created additional markets on a certain marketplace which are created to meet individual needs of market participants. The subject of the paper is wholesale energy prices in Europe countries. The goal of this paper is to assess relationships of wholesale electricity prices change in European countries, after the analysis of trade on power exchange and OTC markets is finished. To reach the goal of this paper the following targets are set: 1. To traverse a trade on power exchange and OTC market. 2. To separate the main problems of wholesale electricity energy market. 3. To estimate mathematically relations among electricity energy prices which were formed at European power exchanges.

With reference to performed analysis on electricity energy trade structure and electricity energy prices that were formed on European countries wholesale power markets in 2005, the following conclusions might be drawn:

1. At the moment a big part of trade is performed at forward market, but electricity trade volume, liquidity and a number of players on power exchange spot market are rising by the growth of number of products offered at this marketplace variety.

2. Calculated variation coefficients for electricity energy prices that were formed at European power exchanges showed that in 2005 the biggest electricity energy price fluctuation was on German (variation coefficient was 40.8%), and French (variation coefficient was 41.6%) power exchanges.

3. By electricity energy price fluctuation market players face prices fluctuation risk. Seeking to manage this risk, market players participate in financial products market which is created for market players' hedging purposes. In 2005 in Scandinavian countries 30% of all trade was performed on financial products market, although electricity energy prices fluctuation coefficient was only 10.2%.

4. Performed correlation analysis of electricity energy prices in Scandinavian countries' wholesale markets shows that dependence relation of change in electricity energy prices exists in these countries:

- 4.1. The changes of wholesale electricity energy prices in Sweden are reflected in the best way by change of electricity energy price in Norway. Correlation coefficient reached  $|0.99|$ .

- 4.2. According to the correlation analysis, Western Denmark electricity energy prices are related by opposite dependence to other Scandinavian countries electricity energy prices: if prices grow in Western Denmark, it is presumable that electricity energy prices in other Scandinavian countries will fall down at that time. Electricity price change in Western Denmark was better characterised by changes of spot prices in Western Europe.

5. In Western Europe's wholesale electricity energy market (in Holland, France, Germany and Austria) change of electricity energy prices is closely related. Correlation coefficients that show the interdependence relation of spot prices in these countries range from 0.74 to 0.96.

6. Calculated determination coefficients for Western countries show that 92.2% of electricity energy change in German EEX power exchange is influenced by price change in Austria's power exchange EXAA.

7. Created regressive model for Austrian EXAA spot price shows that 92.8% of electricity price change may be influenced by price which is formed in Holland, Germany and France. Following the created model, if the price on EEX rises by 1 EUR/MWh, electricity energy price on EXAA will rise by 0.72 EUR/MWh.

Bernatonytė, D., Normantienė, A. (the article "Estimation of Importance of Intra-industry Trade", 2007) argue, that traditional theories, such as comparative advantages or factor endowments, state that countries with different resources or factor endowments will trade with each other. But empirical evidences show that countries with similar endowments trade more these days. Based on new theories, monopolistic competition and increasing returns lead to intraindustry trade among countries, whereas the old comparative advantage is still applied for countries separated by high economic distance. Many studies suggest that more developed countries and more specialized trade structure lead to higher intraindustry trade. To understand why economists have to turn their attention to intraindustry trade and its importance are analyzed in this article. The importance of intraindustry trade arises from its basic character: it does not need to be based on comparative advantage. To a large extent intraindustry trade arises from the facts that products are differentiated and the production of any particular product requires some fixed costs.

Increasing part of intraindustry trade in the volume of global trade is of the importance to the changes of economy, export and import structure of separate countries. This leads to changing nature of international trade and its structure of goods. Therefore the influence of intraindustry trade on the nature of international trade is analyzed in this article. Seeking to define the influence of intraindustry trade on the nature of international trade, the basic theories of intraindustry trade, differences of interindustry and intraindustry trade are analyzed in the article. For the analysis of the importance of intraindustry trade its share in international trade is measured. Therefore the methods of measurement of importance of intraindustry trade are analyzed in this article.

Using Grubel-Lloyd index and standard international trade classification, there was established the nature of international trade between the European Union and its main partners and performed the analysis of Lithuanian

intraindustry trade. On the basis of researches the importance of intraindustry trade in respect of international trade nature changes was evaluated in the article.

Computations for the period of 1999-2005 indicate that intraindustry share of Lithuanian and the EU trade has been growing rapidly.

On the basis of Grubel-Lloyd index Bernatonytė, D., Normantienė, A. (2007) have determined that the growth tendency during the examined period is characteristic to the EU intraindustry trade with Japan and Russia, and tendency of reduction with other partners.

On the basis of SITC it was determined that huge differences in separate groups of goods prevail in intraindustry trade between the EU and its main partners. It is found trading in machines and means of transport, chemical products, and other manufactured goods dominate between the EU and USA, Switzerland. At the same time the value of index of trade in food products, drinks and tobacco between the EU and Japan and mineral fuel between the EU and Russia was almost close to 0. This shows the nature of specialization of different countries and international trade.

On the basis of SITC it was determined that Lithuanian intraindustry trade is the most important and constantly increasing sector of international trade.

Thus, the analysis shows that intraindustry trade provides more additional benefits from international trade than comparative advantage because intraindustry trade enables the countries to gain benefit from larger markets.

Snieška, V., Drakšaitė, A. (the article "The Role of Knowledge Process Outsourcing in Creating National Competitiveness in Global Economy", 2007) deal with the qualitative new direction in achieving competitive advantage and/or core competence – outsourcing of knowledge process. Knowledge economy uses data as a raw material and transforms it using technology, analysis tools and human intelligence into knowledge and competence. Furthermore, an aspect of national economy has been taken into the consideration and exposed as a background for the topic.

In most cases, knowledge work is coupled with the work which resides in the area of corporate core competence or – at least – competitive advantages. To find and sustain the way to remain competitive versus the rivals has always been undoubted priority of business strategy. Thus, the new prospect – knowledge outsourcing (KO) – emerges. Recently KO is seen as the highest growing business in the coming decade.

Knowledge services themselves fall into continuously expanding area with constantly growing demand. Knowledge outsourcing, unlike business process outsourcing that deals with executing standardized ("back-office") processes, involves higher-end services which require advanced analytical and technical skills. Embracing technology as a driving force, knowledge outsourcing is changing the way businesses conduct themselves in the global marketplace. With an Internet connection and specialized skills, individuals and companies in the remotest ends of the earth are able to compete and collaborate in today's global economy.

The constantly higher need for flexibility, significant reduction in time required to "go to the market", increased

competition in the global market and cost pressure have all been driving forces to move towards KO as to a wellspring for innovation of ability to manage the resources. That is based on notion that knowledge creation is the raw material of innovation and is thus a major driver of competitive advantage.

Taking advantage of using the knowledge process outsourcing, national economy gets a highway leading to the creation of better competitive position in the global arena. The comparative advantage model was taken into the consideration in exploiting the case. Furthermore, theoretical models concerning outcomes of knowledge process outsourcing were explored and sustaining empirical studies were employed to promote the topic. Thus, the article reveals new prospects for national economies to take advantage of new competition ways in increasing its own competitive skills in the global scene.

Several different aspects of knowledge process outsourcing subject have been taken into account in the article. Theoretical approach concerning the subject, gains from the process backlashes and possible difficulty have been analyzed.

The two main parts of the topic are surveyed. The main parts are: an effect of knowledge outsourcing on national economy and knowledge outsourcing as a source for creation of competitive advantage. The two parts are considered as an overall unit. Systemic and qualitative comparative analyses have been made to obtain the presentable findings. The results of the research suggest certain ways to gain competitive advantage for national economy using knowledge process outsourcing as a fundamental drive.

The objective of the article was to present a pattern and a perspective mode of national competitive advantages creation through engaging the knowledge process outsourcing.

As rates of globalization proceed to grow and competition becomes more intensive, it is crucial for every country to find ways to maintain and increase its ability to compete. One of the latest means is knowledge outsourcing. Knowledge development is a wellspring for innovations, and simultaneously an important factor for core competence creation.

As employment of knowledge outsourcing is obviously beneficial for national economy, it is important to evaluate the possibility to improve competitiveness through employment of this kind of outsourcing. First of all, it is reasonable to promote the employment of KO in the activities of national economy participants (e.g., by implementing different means of information, consulting services, etc.). In this case, not only foreign, but potential national contractors must be taken into consideration. That is because, in any case, lower costs and increased competitiveness of the products/services in the global market will be observed as an outcome of outsourcing employment. In the case of foreign contractors, it is important to evaluate the possibilities given by global market to reduce costs in choosing proper contractors.

On the other hand, in terms of globalization, countries abundant in relatively cheaper labor and with big potential for knowledge development have an opportunity to improve their competitive positions significantly in

supplying such services. Thus, it is also important to evaluate available abilities to supply (provide) knowledge development services.

Still, in employing knowledge outsourcing, it is essential to foresee possible threats, such as loss of information. Therefore different business activity coordination and control mechanisms are created and applied.

Generally, in conformity with the theoretical models and empirical researches concerning impact of outsourcing employment on national economy, it can be stated that employment of knowledge outsourcing is effective means to improve competitiveness of the national economy.

Pilinkienė, V. (the article "Selection of Market Demand Forecast Methods: Criteria and Application", 2008) deals with the theoretical aspects of the market demand method selection criteria and their application in practice. As the definition of market demand and conditions is related to the achievement of important general strategic decisions and consumers' behavior on the competitive market, the accurate identification of the market demand method selection criteria and their application can reduce decision indefiniteness.

Hence, the main aim of the article is to analyse market demand forecast method selection criteria, and apply them in developing Lithuanian furniture demand forecast. The theoretical part of the article starts with the analysis of the forecast method reasoning and forecast method classification under various economic literature criteria. The analysis of the main forecast method groups disclosed that it was rather difficult to determine the advantage of any method in forecast estimation, whereas, always the risk of the wrong method selection remained.

It was determined that usually unanimous authors' opinion on the complex application of quantitative and qualitative forecast methods differed in two aspects: one group of researchers supported the priority of quantitative forecast methods by using qualitative forecast methods as an auxiliary or alternative means, while the other group of authors stated that equal application of both types of forecast methods guaranteed higher reliability and carried more information.

Quite often any market demand forecast encounters the relevant forecast method selection problem. It should be noted that there are advantages and disadvantages of the forecast method selection in every case; therefore, the analysis and differentiation of the main forecast method selection criteria is expedient.

The selection of the forecast method should be based on several criteria taking into account the applicability of the forecast method complexity, i.e., forecast accuracy level, period of time, the scope of initial data, forecast costs, and the level of result appropriateness and applicability.

The article deals with the research related to the selection of the forecast method for the Lithuanian furniture industry to define the furniture demand forecast for 2007. The object of research is furniture sales on the national market that reflect the solvent part of the furniture demand.

The comparison of the forecast accuracy assessment indicators that were estimated by using different forecast methods indicate that the lowest furniture sales forecast error values were achieved by applying exponential

smoothing method where  $\alpha=0.3$ : forecast error value (et = 77.19) demonstrated the smallest difference between furniture sales forecast and the fact, mean absolute percentage error (MAPE = 8.29 %) indicated high forecast accuracy, and mean percentage error (MPE = 8.29 %) described small positive forecast deviation. In order to achieve the qualitative forecast assessment, forecast reliability intervals were calculated where criterion  $z = 1.960$ . The results allow assuming that furniture sales forecast for 2008 with 95 per cent probability can vary from LTL, 844.64 mio. to LTL, 1147.20 mio.

The selection of the forecast method should be based on several criteria taking into account the applicability of the forecast method for market demand forecast, like forecast accuracy level, period, the scope of initial data, forecast costs, and the level of result application and implementation.

The comparison of forecast accuracy assessment indicators estimated by using different forecast methods identified that the lowest furniture sales forecast error values were received by applying the exponential smoothing method

On the other hand, the value of research results might be limited as it reflects only methodological aspects of the forecast development and does not include quantitative changes of Lithuania's macro environment, especially economic. These changes could be essential for the forecast of any sector, especially when Lithuania's economy is slowing down.

## Conclusions

1. It was found, that competition intensity can be described by these main factors: market shares distribution, market rate of growth, market profitability. The first factor – market shares distribution is analyzed by using mathematical-statistical methods, Stackelberg market classification and graphics market shares interpretation. The second factor – market rate of growth can be explained in such a way: as market rate of growth is higher, then market capacity is bigger and competition is not so high, and vice versa. Another way for evaluation of the second factor can be the concept of demand for product life cycle. The third factor – market profitability, can be explained in such way: as market profitability is higher, then sellers can get higher profit and this means that competition of this market becomes higher. The competitiveness management information system maintenance includes such blocs: product line description, market segments characteristics description, market competition intensity level, product demand life cycle stage.
2. Cluster based economic development is the key to regional competitiveness. Cluster Based Regional Competitiveness Development Model has five stages: mobilisation, cluster development, diagnosis, collaborative strategy and implementation.
3. It is shown that Baltic States are competing exporters of similar sectors of commodities. While demand in Eastern markets is shrinking, export conditions to EU countries are getting more attractive. This encourages Baltic States exports to the EU. Lithuania is exporting

mineral products, textiles and textile article, machinery, mechanical appliances and electrical equipment, products of chemical industries. Latvia and Estonia keep strong export positions in these sectors too.

4. The EU internal market is supposed to be an area without any trade barriers, but there is still much to do achieving really unhampered flow of goods and services in Europe. It was found that the legal basis of the EU permits the possibility to misuse health and safety requirements as a hamper of full economic integration of the expanding EU family.
5. Electronic commerce can be compared to other traditional forms of competitive advantages, but the main difference in this case is the importance of information technologies base for electronic commerce adaptation. But these new business opportunities have a very specific dimension for small and medium enterprises because of their size, financial abilities and relatively small turnover.
6. The research indicates that price comparison method, perhaps, is the best for measuring the presence or size of non-tariff barriers in international textile trade as it allows to compare tariff and non-tariff trade barriers effects and relies on direct primary data.
7. Calculated variation coefficients for electricity energy prices that were formed at European power exchanges showed that in 2005 the biggest electricity energy price fluctuation was on German (variation coefficient was 40.8%), and French (variation coefficient was 41.6%) power exchanges.
8. By electricity energy price fluctuation market players face prices fluctuation risk. Seeking to manage this risk, market players participate on financial products market which is created for market players' hedging purposes. In 2005 in Scandinavian countries 30% of all trade was performed on financial products market, although electricity energy prices fluctuation coefficient was only 10.2%.
9. Created regressive model for Austrian EXAA spot price shows that 92.8% of electricity price change may be influenced by price which is formed in Holland, Germany and France. Following the created model, if price on EEX rises by 1 EUR/MWh, electricity energy price on EXAA will rise by 0.72 EUR/MWh.

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Vytautas Snieška

#### Tarptautinio konkurencingumo tyrimai 2000–2008 metais

Santrauka

Straipsnyje nagrinėjama konkurencijos intensyvumo, kaip vieno iš pagrindinių konkurencijos požymių, veiksniai rinkoje. Taip pat bandoma įvertinti, kokios reikia informacijos, norint sukurti konkurencingumo valdymo informacinio aprūpinimo sistemą.

Remiantis kiekybiniais rodikliais ir bankų veiklos analize, atliekamas Lietuvos bankų konkurencijos indėlių ir paskolų rinkose tyrimas. JAV iki šiol atskirta investicinė ir komercinė bankininkystė, tačiau kintanti konkurencija tarptautinėje ir vidinėje finansų rinkoje skatina bankų siekimą išplėsti veiklą. Analizuojama konkurencijos finansų rinkoje įtaka investicinės Lietuvos bankų veiklos plėtrai.

Atliktas Lietuvos verslo struktūros raidos tendencijų prognostinis vertinimas regioniniu požiūriu parodė, kad nepakankamai palankios ekonominės ir socialinės verslo funkcionavimo sąlygos apskunkina efektyvų verslo vystymąsi ir augimą periferiniuose regionuose, o tai riboja įmonių, visų pirma smulkių ir vidutinių įmonių, kaip dinamiškiausios Lietuvos verslo struktūros dalies, dalyvavimą, skatinant šiuolaikiniuose regioninio ekonominio augimo modeliuose esančių bruožų reiškimąsi.

Atlikta turizmo darbo rinkos analizė atskleidė turizmo veiklos sukurtų darbo vietų kokybinę įvairovę, sunkinančią vertinti turizmo poveikį užimtumui.

Straipsnyje nagrinėjama sandorių kaštų pasiskirstymas rinkoje bei tarpininkų ir tarpininkų rinkoje bei informacinių technologijų plėtros įtaka sandorio kaštams ir tarpininkavimo paslaugoms. Straipsnyje atskleidžiama, jog plačiai paplitusi nuomonė – elektroninė prekyba skatina tarpininkavimo paslaugų mažėjimą – yra neteisinga. Informacinių technologijų panaudojimas verslo procesuose sąlygojamas ne tik skirtingų sandorių tarp firmų, bet ir skirtingų tarpininkų atliekamų funkcijų. Šios priežastys nulemia skirtingas tarpininkavimo paslaugų formas (tarp jų ir naujų tarpininkavimo paslaugų atsiradimą), reikalingas sandorio kaštams minimizuoti.

Lietuvoje, kaip ir daugelyje kitų pasaulio šalių, atskiri regionai ekonomiškai ir socialiai išsivystę nevienodai, todėl, integruojantis į Europos Sąjungą, būtina užtikrinti, kad visi regionai būtų konkurencingi ir galėtų orientuotis į pasaulines rinkas. Straipsnyje nagrinėjamos klasterių teorijos panaudojimo galimybės didinant regionų konkurencingumą ir plėtojant ekonomiką. Remiantis čia pasiūlytu regionų konkurencingumo didinimo klasterių teorijos pagrindu modeliu, siūloma regionų konkurencingumo didinimo strategija Lietuvoje bei apžvelgiamas modelio praktinio pritaikymo Lietuvos regionams prielaidos.

Straipsnyje nagrinėjami tarptautinėje prekyboje aštrėjančios konkurencijos sąlygomis naudojamų nemuitinių rinkos apribojimo priemonių aspektai. Tekstilės pramonės kontekste išryškintas tradicinių ir naujų barjerų aktualumas ir perspektyvos. Šiame darbe plačiau atskleidžiamos naujojo protekcionizmo formos, nagrinėjama jų specifika, aptariamasi vystymosi tendencijos.

Pastaraisiais metais Europos mokslininkų dėmesys sutelktas į techninių prekybos kliūčių problemą. Prielaidas techniniais reglamentais riboti prekių pateikimą į nacionalines rinkas visų pirma sudaro teisinė nuostata, kuria šalims narėms suteikiama galimybė riboti prekių, keliančių grėsmę žmonių sveikatai, saugumui, aplinkai, moralei ir kt. įvežimą į šalį.

Europos Sąjungos teisinės sistemos sudėtingumas, reikalavimų ir direktyvų gausa taip pat gerokai apsunkina gamintojų, ypač rinkos naujokų, veiklos bendroje ekonominėje erdvėje sąlygas. Didelę dalį šiuo metu Europos Sąjungoje galiojančių 1500 direktyvų ir 300 reglamentų sudaro techniniai (kokybiniai ar produktų saugos) reikalavimai teikiamiems į Europos rinką produktams; jų perėmimo ir įvykdymo kaštai ypač yra juntami naujai įstojusiuose Centrinės ir Rytų Europos šalių gamintojams

Elektroninės komercijos plitimas įvairiuose ūkio sektoriuose susijęs su šiuolaikinio verslo ypatybėmis: didele ir nuolat augančia konkurencija, mažėjančia konkurencinių pranašumų įvairove, tvirtesniu požiūriu į pelną kaip kaštų mažinimo pasekmę. Tradiciniai konkurenciniai pranašumai: modernios technologijos, mažesni kaštai, patogi geografinė padėtis, tampa vis mažiau reikšmingi dėl globalizacijos proceso, todėl įmonės ieško naujų veiklos efektyvumo didinimo galimybių.

Įmonės lygmeniu elektroninė komercija pirmiausia siejama su konkurencinių pranašumų formavimo galimybėmis. Išskiriamos šios elektroninės komercijos naudojimo sritys, įgalinančios pasiekti konkurencinių pranašumų: padidinti klientų pasirinkimo kaštus; sumažinti įmonės pasirinkimo kaštus; inovacijomis išlaikyti savo vietą rinkoje arba apsisaugoti nuo prekių pakaitalų; bendradarbiauti su pasirinktais konkurentais iškeliant barjerus naujiems konkurentams įeiti į rinką; panaudoti personifikuotą informaciją siekiant geriau aptarnauti savo klientus.

Elektroninės komercijos integracija į verslo procesus yra reali galimybė sustiprinti savo pozicijas rinkoje, todėl tikėtina, jog anksčiau ar vėliau elektroninė komercija taps būtinybe (įėjimo į rinką barjeru) kai kuriuose pramonės sektoriuose, pasižyminčiuose didele kaštų ekonomija naudojant elektroninės komercijos modelius. Vadinasi, bet kuri SVV sektoriui priklausanti įmonė turi įvertinti galimybes ir galimą naudą savo veikloje taikant elektroninę komerciją.

Skiriama dėmesio Jungtinių Tautų prekybos ir plėtros konferencijos

(UNCTAD) duomenų bazei, kuri prekybos kontrolės matavimui pateikia gana išsamų netarifinių barjerų sąrašą, suskirstantį juos į grupes. Išskiriamos šios pagrindinės netarifinių barjerų matavimo grupės: kainų kontrolės matavimas, finansinė kontrolė, kiekio kontrolė, monopolistiniai matai, techninis reguliavimas: ženklavimo, pakavimo, bandymų, tikrinimo, karantino, informacijos reikalavimai, išankstinis muitinis patikrinimas, specialūs muitiniai formalumai ir pan.

Tarifų ir subsidijų ekvivalentai, lyginami su kainų pokyčiais prieš barjero įvedimą ir po jo, yra geriausias nemuitinio barjero matavimo būdas.

Tyrimas taip pat remiasi išvada, jog kainų pokyčio matavimo metodas iš šiame straipsnyje nagrinėtų netarifinių barjerų poveikio matavimo metodų yra bene tinkamiausias tarptautinės prekybos tekstile barjerams vertinti, nes leidžia tiesiogiai palyginti tarifinių ir netarifinių barjerų poveikį, o duomenys tokiam matavimui yra gana tiesioginiai, neišvestiniai. Tačiau, norint pamatuoti atskiro netarifinio barjero įtaką tarptautinei prekybai, pasirinkti matavimo metodą reikėtų išanalizavus, kurie duomenys, susiję su netarifiniu barjeru, yra pasiekiami.

Elektros energijos kainų Europos energijos biržose kainos tendencijų analizė rodo, kad 2005 m. šios kainos Skandinavijos šalyse kito nepriklausomai nuo šių kainų kitose Europos šalyse, tačiau mažesnės elektros energijos kainos šiose šalyse rodė, jog Šiaurės šalių elektros energijos gamintojai Europos elektros energijos rinkoje būtų konkurencingi. Žinoma, Šiaurės Europos šalių elektros energijos rinka, palyginti su kitų šalių rinkomis, nebuvo patraukli arbitražinio pelno ieškojusiems rinkos dalyviams, nes kainos Šiaurės Europos biržoje mažai svyravo.

Apskaičiuotas 2005 m. Prancūzijos elektros energijos kainos variacijos koeficientas, kuris apibūdina elektros energijos kainų svyravimą per parą ir šių kainų nukrypimą nuo nagrinėjamo laikotarpio vidutinio šios kainos lygio, siekė 41,6 %, t. y. kainų variacija yra labai didelė, nes viršija leistiną 30 % ribą. Elektros energijos kainos svyravimą apibūdinantis variacijos koeficientas Šiaurės Europos (NORD POOL), Lenkijos (GIELDA Energii), Vokietijos (EEX) ir Ispanijos (OMEL) energijos biržose pateiktas 2 pav.

Galima pastebėti, kad kainų dydžio atžvilgiu Europoje formuojasi dvi didelės elektros energijos regioninės rinkos: Šiaurės Europos šalių elektros energijos rinka ir Vakarų Europos elektros energijos rinka.

Žinių ekonomikoje pagrindinis įmonės turtas yra nematerialus (kūrybingumas, žinios, kompetencija, darbuotojų motyvacija ir pan.), taigi informacinėje ekonomikoje žinios yra vertę vartotojui kuriantis veiksnys. Todėl labai svarbu pasirinkti tinkamą būdą šiam veiksniumi valdyti. Tačiau žinioms tampant vis sudėtingesnėms, tik nedaugelis įmonių pasaulyje turi pakankamai išteklių jas valdyti arba kurti pakankamo pločio ir gylio žinių, reikalingų nuolat atnaujinti ir vykdyti inovacijų kūrimo (taikymo) procesą, kiekį. Vienas inovatyviausių būdų – žinių išoriniam taikymas.

Žinių išoriniam taikymui priešingai negu nepagrindinių įmonės veiklos funkcijų išoriniam taikymui, kuri paprastai apima standartizuotas veiklos dalis, yra susijusi su vertės vartotojui kūrimo veiklomis, esančiomis vertės kūrimo grandinės pabaigoje. Tokiai veiklai vykdyti reikia atitinkamos srities specifinių žinių bei itin gerų įgūdžių ir sugebėjimų. Žinių išoriniam taikymui siejamas su pagrindinio konkurencinio pranašumo kūrimo veikla – intelektualine nuosavybe.

Reikia pastebėti, kad sudėtingesni prognozavimo metodai (regresiniai, ekonometriniai, sąnaudų ir išėigos modeliai) įgalina iširti mikro- ir makroekonominį rodiklių sąveiką, verslo posūkio taškus ir ekonominį procesų dinamiką. Parenkant prognozavimo metodą rinkos paklausai prognozuoti, ypač didelis dėmesys kreiptinas į galimybę įvertinti vartotojų poreikius ar konkurencinių sąlygų kintamumą. Nors neretai į kokybinius prognozavimo metodus dėl jiems būdingo didelio subjektyvumo žiūrima skeptiškai, tačiau jų pasirinkimas gali būti naudingas, kai neįmanoma kiekybiškai išreikšti daugelio, ekspertų vertinimu, svarbiausių rinkos paklausą sąlygojančių veiksnių arba kai kiekybiniam prognozavimui nepakanka turimų duomenų.

Raktažodžiai: *tarptautinis konkurencingumas, tarptautinė prekyba, klasteriai, prognozavimas, sandorio kaštai, pramonės politika, techniniai prekybos barjerai, netarifiniai prekybos barjerai, žinių išoriniam taikymas.*

The article has been reviewed.

Received in August, 2008; accepted in October, 2008.

DOI: 10.5755/j01.ee.59.4.11560