THE ROLE OF MARKETING IN CONTEMPORARY INNOVATION PROCESSES – THE PERSPECTIVE OF TRANSITION ECONOMIES

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1. Introduction

Innovation is nowadays perceived as an imperative for sustainable competitive advantage of any company. Peter Drucker defined innovation as a change in value and satisfying customer needs and linked it closely with marketing. The innovation processes have been evolving since Drucker's work, as well as the role of marketing supporting them. The aim of the paper is to present the role of marketing in the contemporary innovation processes with the specificity of a transition economy enhanced. It attempts to confront the theoretical assumptions concerning the role of marketing in the networked model of innovation with the statistic data and empirical research results showing the differentiated importance of marketing in the innovation processes conducted in matured market economies and transition ones.

2. Innovation concepts and typology – a literature review

Innovation may be defined in many different ways. The simplest definition states that innovation means "making changes to something established by introducing something" [1, p.942]. Most researchers extend this definition of innovation by adding specific dimensions of innovation. They differentiate technology-driven and market-driven innovation, leading to technological and organisational innovation or technological and marketing innovation [2, p.134-160]. They also discriminate product innovation from process innovation [3, p.80-140], and mention that an innovation may be more or less creative or imitative. As a result of the above, innovative products may be products "new for the firm", "new for the market" or "new for the world" [4, p.100-180]. The innovation in products and/or processes may be incremental or radical i.e. replacing the previous products and processes [3, p.80–140]. It may be also a disruptive innovation i.e. changing the entire industrial sector and business practices [5, 30-83]. Depending on the type of product/service innovation may be autonomous or systemic, influencing the organisational forms of handling it (i.e. integration, alliances, virtual organisation) [6, p. 30-36; 7, p.130-150]. The diversity of innovation types causes difficulty in attempts to formulate a more complex definition incorporating all different dimensions of innovation. One of such definitions is that of D. O'Sullivan and L. Dooley: "Innovation is the process of making changes, large or small, radical and incremental, to products, processes, services that result in the introduction of something new to the organisation that adds value to customers and contribute to the knowledge store of the organisation" [8, p.5].

The innovation concepts presented above focus alternatively on the change in product/service features or processes performed by an organisation. This approach is essentially different from that adopted in the concept of innovation by Peter Drucker. He defined innovation as a change in value and satisfying customers' needs by use of appropriate resources, and claimed it to be the essence of business [9, p.14–36]. He says that the change in value may take the form of an improvement or modification of existing products or creation of a new value, new and different ways of satisfying customer needs, and transforming resources into assets or combining existing resources into a new, more effective configuration. The core of Drucker's innovation concept is then not the product or service itself, but the very value, especially customer value, and the value for firm resulting from changes in use or configuration of firm resources.

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The concept of innovation introduced by Drucker in 1986 has its contemporary successors. First is the value innovation concept presented in the late 90s by W. Chan Kim and R. Mauborgne [10, p.60–90; 11, p.70–115]. The authors assert that in search for sustainable competitive advantage a company should integrate innovation in creating value for the customer with innovation in the value for a company creating processes. They insist on simultaneity in creating both values, which means that the raise in customer's value should not induce a reduction in the value for a firm. They claim that the value innovation concept may be perceived as a firm strategy integrating product innovation with process innovation, as well as technological innovation with innovation in marketing or organization of the firm. Though they assume that the strategy is specific for entering quite new, free from competition market space (i.e. "the blue ocean strategy"), the general assumptions of the concept may be effectively used for competing in matured, competition intensive markets (i.e. "the red ocean") [12, p.33–57].

The second inheritor of the Drucker's innovation concept is the concept of strategic innovation recently introduced by A. Afuah. He adopts the value approach to innovation and defines the socalled strategic innovation as "a game-changing innovation in products/services, business models, business processes and/or positioning vis-à-vis competitors to improve performance" [13, p.4] and build competitive advantage. He says, that "a new game strategy is a set of activities that create and/or appropriate value in new ways. They entail performing new value chain activities or existing ones differently from the way they were performed in the past, to create value and/or position a firm to appropriate (capture) value." [13, p.4]. He argues that the concept of strategic innovation is very close to the general concept of strategy originally introduced by A. D. Chandler and K. J. Arrow and redefined by M. Porter as the creation of a unique and valuable position, involving a different set of activities. The strategic innovation concept may be, therefore, perceived as being based on the heritage of Drucker and Porter together, combining it with the contemporary innovation theory achievements. It is also consistent with J. Schumpeter concept of innovation [14] as a process of "creative destruction" where the constant search to create something new simultaneously destroys the old rules and establishes new ones – all driven by search for strategic advantage being the new source of value for the firm [15, p.120-150].

Summing up, the contemporary innovation concepts i.e. the value innovation concept and the strategic innovation concept presented above are both very close to the approach to innovation established originally by Joseph Schumpeter and Peter Drucker. They are both strategic in that sense, that they combine external and internal factors. They merge the processes of creating value for the customer with the processes creating value for a company. They do not focus on products as alternative for processes but join the two. They do not concentrate on technological innovation only but embrace the marketing and organisational ones as well. They may be successfully adopted for autonomous and systemic innovation after the network approach is taken into consideration. Concluding, the perspective of value innovation, which is present in both concepts, represents an integrated approach for analysing contemporary innovation processes in most of the dimensions presented earlier. It offers a promising perspective for describing the innovation processes conducted in the international market in search for competitive advantage of companies and their networks.

3. Evolution of innovation models – towards the networked model of innovation

The review of the contemporary innovation concepts and their antecedents show that the innovation concept itself has not changed essentially since the twentieth century when J. Schumpeter and P. Drucker works were published but looped. One might suppose that the innovation processes have not changed as well, but that is not true. Researchers studying the contemporary processes of innovation prove that the understanding of the innovation process has changed over time essentially. Rothwell [16] describes the evolution of the approach to innovation by defining five generations of innovation models. He distinguishes the technology push model, market pull model,

coupling model, integrated, parallel model and finally – the integrated, networked model of innovation. The five generations of the innovation models are presented in the Table 1.

Generation	Description	Emergence	Main features				
First	Technology push model	Early 1950s - mid – 1960s	 innovation process was linear, driven by significant R&D capability that pushed technologically developed strong competences within one or many technologically superior products into the marketplace 				
			 organizations developed strong competences within one or many technological platforms and focused on the discovery stage of innovation process to produce a steady stream of breakthrough technologies, dominant power rested in R&D, leading to the stereotype of the innovative company as one populated by white – coated scientists 				
Second	Market pull model	Mid –1960s - early 1970s	- innovation process was linear but driven by the needs of the marketplace rather than technology				
			 organizations expended resources through their marketing departments to better understand what the customer wanted and than use the need as a mechanism to pull appropriate innovations through the innovation process 				
			 output of the market pull process was in a better alignment with specific marketing needs, dominant power shifted from the R&D function to marketing function 				
Third	Coupling model	Early 1970s - early 1980s	 innovation process was coupling technology push and market pull processes as opposite ends of the spectrum 				
			 organizations began to view their innovation process as sequential, functionally specific phases that are highly interdependent 				
			 simplicity of a model driven by a single stimulus was abandoned in favour of a more independent and complex process 				
			 dominant power shifted to higher management level because of the need of coordination and optimization across the various phases of the innovation process 				
Fourth	Integrated, parallel	Early 1980s - mid 1990s	 innovation process was focused on integration and parallel development, obsessed with time to market and waste avoidance 				
	model		 sequential process replaced by integrated activities that occur simultaneously and influence each other development, broadened scope of innovation process, more holistic perspective and recognized system effect within the process, promoting the idea of overlapping boundaries for innovation success 				
			- enhanced integration and knowledge exchange across the innovation process				
			 increased engagement of external and internal stakeholders in the innovation process 				
			 reconnection of the complexity resulting from relationships of parallel activities, and recognition that process effectiveness could be enhanced through ongoing analysis and learning 				
			 intensified management of innovation, driven by the desire to improve the effectiveness of the process by reducing waste 				
Fifth	Integrated, networked	Late 1990s	 greater focus has been placed on networking, system integration, and agile communication 				
	model		 structuring the engagement of all relevant stakeholders and yet remain agile enough to adapt to contingencies, reflects the systemic nature of the innovation complexity 				
			 management of innovation reflects the interwoven nature, as opposed to simplistic linear perspective of the earlier models 				
			- management should nurture innovation development and balance structure and flexibility				

Tab. 1. Five generations of innovation models

The general direction of the evolution of the innovation model is a change from a simple linear model of innovation to an integrated and networked one. The last, fifth generation model of innovation described by Rothwell, which emerged in the late 1990s and has been dominating by now, is an extension of the fourth generation model and includes features of both. The changes in the model of innovation that occurred in the 90s were caused by several factors. The geographical dispersion of organisations, which was the result of globalisation and Internet development, called for a model maintaining the integration and engagement of all relevant stakeholders of the innovation process. It should reflect the complexity and systemic nature of innovation. These implied the innovation management routines to focus on nurturing innovation development and balancing between structure and flexibility. The evolution towards the integrated, networked model of innovation has been enabled by the development of information and communication technologies (ICT), which allow for diverse links within networks by overcoming the reach versus richness dilemma, previously included in the information economics. Networking supports shared learning leading to new knowledge as well as configuring and adopting ideas developed elsewhere. Participation in innovation networks can stimulate new ideas and creativity. Networking may also spread the risk involved in innovation processes and help in better use of scarce knowledge resources.

The evolution of the model described here is sometimes called the transition from a closed model of innovation to an open innovation model. The concept of open innovation model was developed in the early years of twenty first century by H. Chesbrough [17, p.20–57]. He describes open innovation is as a combination of internal and external ideas as well as internal and external paths of entering a market supporting the development of new technologies. The main differences between closed and open innovation are presented in Table 2.

Closed innovation principles	Open innovation principles
The smart people in the field work for us.	Not all the smart people in the field work for us We need to work with smart people, both inside and outside the company.
To profit from R&D, we must discover it, develop it and deliver it.	External R & D can create significant value; internal R & D is needed to provide part of the value.
If we discover it ourselves, we shall be the first on the market.	We do not have to be authors of research to profit from them.
Winning company is the one launching innovation onto the market.	Building a better business model is better than being first on the market.
We shall win if we create most of the best ideas in the industry.	We shall win if we make the best use of internal and external ideas.
We ought to control our IP, so that the competitors do not gain profit from our ideas.	We should make a profit from the use of our IP by others, whenever it supports our business model.

1 ab. 2. The principles of closed and open innovation

Source: adapted from Chesbrough, H. (2003), Open Innovation: The New Imperative for Creating and Profiting from Technology, Harvard Business School Press.

Open innovation model breaks with the conviction of the need to focus on internal development, based on own research and resources (competencies) of a company, a direct relationship between a technological leadership and a commercial success, and the absolute necessity to protect company's IP. It points to the fact that innovation can come from outside, and the source of value is not so much innovation itself but a much better business model, which uses it. The open innovation model

is being used by more and more companies today, incorporating the elements of this concept into their innovation processes.

4. The concepts of innovation in marketing theory

Approach to innovation, which prevails in the theory of marketing refers to the already quoted idea of Peter Drucker, that innovation is to provide the customer with better and better and more efficient goods and services, which may take the form of a lower price, new or better product, new facilities or the creation of a new need, or also finding new uses for an old product [18, p.54–55]. This approach to innovation is continuously present and developed in the marketing literature in connection with the aspects of launching new products onto the market. The modern attempt of a systematized approach to the process of creating innovation is the concept of vertical and lateral marketing of Ph. Kotler and Trias de F. Bes. These authors distinguish two ways to create innovation encountered in a day-to day running of enterprises: vertical marketing and lateral marketing [19, p.14–31].

Vertical marketing concept is based on sequential, logical (vertical) thought process in which the search for innovation goes from general to specific. The assumption of market consistency is taken, where striving after product innovation is performed within the existing market definition. Searching for innovation is based on the use of segmentation and positioning strategies, and modifying existing products in order to create their varieties. The resulting innovations do not create new product categories or new markets, as they always occur within a category in which the product idea was created. Kotler and Trias de Bes believe that this approach to innovation is adequate in the early stages of market or product life cycle (growth stages), as it allows for defending market by its division (fragmentation). Vertical marketing belongs to a low risk strategy and can be used in a situation when a company has limited funds available for R&D. The marketing department primarily bears the responsibility for innovation [19, p.110–111].

The second approach to the creation of innovation is called by Kotler and Trias de Bes lateral marketing. Lateral marketing is based on lateral thinking, in which the existing information is restructured and moves from the particular to the general as a result of the more inventive, probabilistic, provocative and creative thinking. Innovation generated within the lateral approach is located outside the defined category of a product or market, leading to the formation of a new category or market. The lateral approach to innovation causes that the selected product is transformed in a sufficient degree to ensure that it can satisfy new needs or the needs of new customers, alternatively it can be used in circumstances not previously taken into account by the company. Thus, this type of innovation does not intercept the pre-existing market, but create a new one. Lateral marketing is appropriate in the mature phase of the market or product life, allows for attacking of existing markets by substitutes from the outside. It belongs to a high-risk strategy and requires relatively large financial outlays. The responsibility for this type of innovation does not solely lie in the marketing department - it requires the involvement of other departments and even external companies [19, p.93–111].

Looking at the concepts of vertical and lateral marketing of contemporary innovation model it can be stated that they do not reflect fully the changes that have occurred in this model over the past 60 years. It seems that the marketing looks at innovation processes from the angle of the third model, at the outmost, the fourth generation, characteristic for the late 80s and 90s of the last century. This essentially corresponds with a closed model of innovation that takes place within the company, striving for leadership in launching innovation generated on the basis of company internal resources, with a strict control of owned intellectual property. Such a company focuses on product innovation, with little consideration given to its complexity and systemic nature and relationship with a business model that allows a company to appropriate the value. On less demanding markets, innovation is inherent in the concept of vertical marketing, where it is not enough – it turns to a lateral marketing. This approach to innovation processes justifies the placement of responsibility for innovation in a functionally separate marketing department. Innovation is here inspired and supported by marketing people or a higher level of company management, primarily coordinating the internal activities of participants of innovative processes.

5. Marketing and innovation – basic relationships

The increase in the intensity of competition, which among other factors, is a consequence of markets and business globalization, causes that innovation is considered as an imperative of the development of modern enterprises. It is emphasized that achieving and maintaining competitive advantage is possible only on the condition of generating the capacity for systematic innovation, which is a source of growth of enterprise value for its stakeholders. This is not a new view, for innovation, along with marketing, were recognized over half a century ago as the essence of business. Since then, it has become a widely held conviction that innovation is embedded in the marketing and vice versa. Is it really like that - is innovation possible without marketing, or marketing without innovation? Is this relationship - if any - a subject to some change over time? Is it stronger or weaker in our times? What affects the strength of a possible change in the relationship between innovation and marketing?

The conducted considerations allow for a partial answer to these questions. Firstly, if innovation is defined as a change in values and satisfying the needs of customers, and marketing as a process aimed at creating and providing value to customers, the relationship between these two processes is obvious. The analysis of presented here concepts of innovation also permits us to say that so defined innovation is not possible without marketing, although on less demanding markets an effective marketing without innovation is possible. The strength of this relationship, however, varies in time. In the first generation innovation model, marketing had no significant effect on innovation processes. Its importance, however, grew with the increase of the market saturation and the intensity of competition. A surge in the diversity of customers' needs and expectations as well as their requirements meant that it was necessary to combine technological and marketing aspects in innovation processes. It seems that today the power of the relationship between innovation and marketing is even greater than in the past, as it is indicated by the characteristics of today's globalized and hyper competitive markets. The relationship between companies' innovation and marketing is not widely recognized and appreciated today, however research brings different conclusions, depending on whether they are carried out in most developed countries of Western Europe, or in less developed countries of Central and Eastern Europe.

For example, research conducted in a matured market economy, shows that innovation is the greatest weakness of marketing departments, which negatively affects the image of marketing in these enterprises. These studies have shown that the innovative skills of marketing departments are rated the lowest (1.9) among those considered to have the ability to influence the perception of marketing as: related to finance (5.2), relations with customers (4.8), creativity (4.1) and even efficiency (3.9) [20, p.30–35]. On the other hand, research on the importance and role of marketing in Polish enterprises which has been conducted in recent years show that in the majority of Polish companies marketing is appreciated, they have marketing departments, and market and marketing knowledge is highly appreciated [21]. It is believed that the marketing skills of Polish enterprises allow for better fulfillment of customers' needs and have a growing importance in ensuring the market success of companies, primarily on the domestic market, to a lesser extent on the international one. At the same time research conducted in Poland indicates that the field of marketing has a relatively large impact on innovativeness of enterprises (3.64), larger than the field of research and development (3.39), nota bene the lowest evaluated of all functional areas surveyed among Polish companies. Such a high score of marketing comes from the assessment of needs, preferences and behavior of customers and the ability to anticipate future changes (3.91), knowledge, experience and skills of marketing staff (3.90), having its own marketing departments (3.74) and budgets for marketing activities (3.63).

Commenting on the differences in the results of research it can be concluded that the cause of different perceptions of marketing impact on innovation processes could be driven from the

differences in the organization of marketing activities in the examined companies. In the more developed economies marketing activities are subject of outsourcing to a large extent, which means the transfer of marketing knowledge and expertise outside the company. Underestimating the role of marketing can also be caused by the misunderstanding of a long established fact that both innovation and marketing, are not singled out business functions, but they permeate all spheres of their functions and activities. The pursuit of the link between innovation and marketing from the perspective of cooperation among the singled-out functional departments of the company cannot, convey the whole complexity of the interpenetration phenomenon of these two therefore. processes. Studying the impact of marketing department on company's innovation does not consequently provide sufficient ground to assess the impact of marketing itself on the modern innovation processes. This approach may also lead to reduced effectiveness of the recommendations formulated by researchers and practitioners dealing with this issue. The perception of marketing from the angle of operation of only one department – the marketing department, fails to notice interfunctionality of marketing activities, and thus limitations to the recommended activities for creating the interface between the company and its customers. As a result, researchers interested in increasing the impact of marketing on business innovation recommend an increase in the innovativeness of marketing departments through the use of market knowledge and customers' knowledge for the development of new concepts for products and services, appealing to new trends, such as co-development of value by customers and introducing customers' solutions. They also recommend exercises in lateral thinking, which allow companies to transform customers' needs and expectations into ideas for new products.

The above recommendations, otherwise valid, still seem to be insufficient to strengthen significantly the impact of marketing on innovation processes. Neither the vertical nor lateral marketing in the view of Kotler and Trias de Bes is a response to the challenges to the modern model of innovation, assuming systemness and complexity of innovation processes, which require a holistic approach, parallelism and simultaneity of innovative activities, the integration of activities of participants (stakeholders) of these processes, both internal and external. The idea of vertical and lateral marketing does not solve the problem of development of cooperation in the network, efficient communication and knowledge sharing as well as intensification of innovation process management, requiring both structuring and flexibility. This means that both in practice and in theory of marketing there is a need to look for new solutions and ideas to increase participation in the processes of innovative marketing. In practice, it is worth to be modeled after best practices, such as those presented today by, for example Apple, who effectively uses a new model of innovation to achieve market success by integrating engineering skills with marketing, creating their own and getting from outside new ideas and technology, combining all these with a perfect sense of market needs. On theoretical grounds the concept of relationship marketing (network) should be developed, based on knowledge, not only would it go beyond the organizational framework for the marketing department, but far beyond the boundaries of individual companies, enabling mutual learning of many stakeholders creating innovative network of value.

6. Innovation processes in transition economies

The conducted here theoretical considerations and quoted empirical research findings over the perception of the role of marketing in innovation processes can be used for understanding the specificity of innovation processes taking place in transition economies and the impact of marketing on their course. The research on innovativeness of the European Union economies, shows a substantially lower level of innovation in the CEE transition economies in comparison with the economies of the EU-15. Most of these economies constitute a group of catching-up countries (Bulgaria, Latvia, Romania) or moderate innovators (the Czech Republic, Hungary, Lithuania, Poland and Slovakia). Only Estonia and Slovenia are included in the group of innovation followers and none of the transition economies is in the group of the Innovation leaders (EIS 2009, p.12). The detailed research results on the innovativeness of European economies are presented on Figure 1.



Data for the underlying indication are fro 2005 (34%), 2006 (34,5%), 2007 (13,8%) and 2008 (48,39%) Source: European Innovation Scoreboard (EIS) 2009, European Commission, 2010, p.12

The basis for measuring the level of the EU economies innovation is a synthetic indicator comprising seven factors in three areas: Enablers, Firm activities and Outputs. Enablers capture the main drivers of innovation that are external to the firm such as Human resources – the availability of high-skilled and educated people and Finance & support – the availability of finance for the innovation projects and government's support for the innovation activities. Firm activities embrace innovation efforts that firms undertake in the innovation process. First are Firm investments which cover a range of different investments firms make in order to generate innovations; next – Linkages & entrepreneurship – encompassing entrepreneurial efforts and collaboration efforts among innovating firms and also with the public sector, and last – Throughputs - including the Intellectual Property Rights (IPR) generated as a throughput in the innovation process and Technology Balance of Payments flows.

The last groups of factors – Outputs – encompass the outputs of firm activities described as Innovators – the number of firms that have introduced innovations onto the market or within their organisations, covering technological and non-technological innovations and Economic effects – capturing the economic success of innovation in employment, exports and sales due to innovation activities.

The economies undergoing transformation lag behind the EU-15 economies, mainly in the field of Firm activities - here their, by far the weakest sides, are Throughputs and Firm investments (EIS 2009, p.14). They also differ significantly from commercially mature economies in the field of Enablers, both in the area of Human resources as well as Finance and support, as is shown in Figure 2.

The Eurostat studies have revealed the innovation gap occurring between these two groups of countries, which can be justified by the fact that the transition economies began their innovation activities from a very low level, which had once been allowed by the autarchic economy of scarcity.

Today the dominant trend present in the European statistics is the convergence of innovation levels of matured market economies and the transition ones.

The increasing level of innovation of the latter over lapses with a much faster pace of growth compared to the EU-15 countries, including the very rapid growth of innovativeness of countries so far the least innovative (Bulgaria and Romania) (EIS 2009, p.14).



Fig. 2. Country groups: innovation performance per dimension

Source: European Innovation Scoreboard (EIS) 2009, European Commission, 2010, p.14.

As mentioned, one of the factors that significantly differ the most innovative economies from the least innovative in Europe is an innovative activity of enterprises, measured by the enterprises engaged in innovation activities in relation to all companies in the country. As shown in Table 3, for all companies, regardless of a size class and a branch of activity, it is up about 21 percent higher in the EU-15 than in the nine new EU countries. The biggest difference relates to medium-sized enterprises and amounts to 28 percent in general. But it is worth noting that the level of innovativeness measured by innovative activities of companies varies greatly within this group of countries. In case of the Czech Republic and Estonia, a noticeable gap in the level of innovativeness in relation to the EU-15 is about 10 percent, while in other remaining cases is up to 20 percent and more (the largest in Poland, Romania, Slovakia and Lithuania).

Tab. 3. Enterprises with innovation activity as a percentage of all enterprises by size-class

Size- class	EU- 15	EU- 9	Czech Republic	Estonia	Latvia	Lithuania	Hungary	Poland	Slovenia	Slovakia	Romania
Small	39	18	25	31	14	21	21	13	13	15	13
Medium	60	32	42	48	33	40	28	25	28	24	21
Large	77	53	66	75	58	64	44	53	55	47	41
All	44	23	30	36	19	28	23	17	21	19	17

Note: Data for Hungary do not include Mining and Quarrying

Source: Innovation activity in the new Member States and Candidate Countries. Activity, co-operation and sources. Statistics in focus. Science and Technology, European Commission, 12/2004, p.2.

It seems that the presented in the EU statistics perspective of convergence of the level of innovativeness of CEE and Western Europe is too optimistic, reflecting the fact that it does not take into account some important factors that indicate the degree of innovation, and hence - the competitiveness of enterprises and economies. The accepted indicators of assessing the level of innovativeness of enterprises, such as the share of enterprises engaged in innovation activities in the overall number of enterprises and economic effects of innovation implementations in terms of employment, exports and sales as they are not sufficient to assess the degree of innovativeness of

the action taken. Referring to the considerations contained in the initial part of this paper it should be noted that in the EU statistics innovation is simply perceived as the introduction of new or significantly improved product /service or process for a given market or across the enterprise. The reference market for companies from the CEE countries is primarily their local market. The low degree of internationalization of enterprises from transition economies does not allow them to evaluate innovativeness of the implemented solutions in the context of the international market, at least, the EU, which is certainly done, to a greater extend, by Western companies operating and competing on the EU market for many years. It can be also suspected that companies from the CEE region do not bring about a radical or destructive innovation what can be traced in the EU statistics, where companies are asked about the barriers to innovation (Table 4).

	EU - 15	EU -9	Czech Republi c	Estoni a	Latvi a	Lithuani a	Hungar Y	Polan d	Sloveni a	Slovaki a	Romani a
Economic factors											
Economic risk	18	11	9	14	9	4	16	15	11	14	8
Innovation costs	23	19	22	25	21	0	19	19	21	26	22
Sources of finance	17	23	8	31	27	1	27	21	24	41	31
Internal factors											
Organizationa I righties	5	4	2	3	4	7	6	5	4	3	2
Qualified personnel	15	8	7	13	9	8	8	4	13	4	5
Information on technology	5	4	1	6	6	7	5	4	4	2	3
Information on markets	5	6	3	8	7	6	11	4	8	4	4
Other factors											
Regulations and standards	9	6	3	8	6	5	10	7	4	7	7
Customer responsivenes	5	8	5	10	6	5	18	8	5	9	3

Tab. 4. Enterprises reporting the following hampering factors as highly important, as a percentage of all innovation active enterprises in industry

Note: Data for Hungary do not include Mining and Quarrying

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Source: Innovation in the new Member States and Candidate Countries. Output, barriers and protection. Statistics in focus. Science and Technology, European Commission, 13/2004, p.4.

The enterprises from transition economies more rarely than their Western European competitors point at a risk associated with innovation activities. This risk increases enormously in the case of radical and destructive innovations, which cannibalize existing products /services and change the structure of the industry in which companies operate. Similarly, the costs of innovation are rarely mentioned by them as a barrier to innovation, which could indicate that they engage in market-driven innovation rather than in technology-push one, which usually entail for significantly higher outlays on R & D. This may result from lack of financial resources for innovative activity, which is

more often considered a barrier to innovation by companies from the CEE countries than the EU-15. The fact that these enterprises relatively less complain about the lack of qualified personnel and information on technology, and more acutely feel the lack of market information may also indicate a "market" and not "technological" nature of the innovations implemented.

The fact that the risk and cost of implemented innovations are relatively rarely indicated by companies from the CEE countries as a significant barrier to innovation can also result from the notion that these innovations are set in the vertical marketing concept, rather than lateral, referring to the strategy of red rather than blue the ocean. These types of strategies of CEE enterprises were initially justified by the low saturation level of markets in these countries, the relatively lower intensity of competition and openness of economies to international trade as well as associated with lower levels of economic development smaller requirements of customers. These conditions were the cornerstone of creating innovation based on sequential, logical thinking within a given category of the market and taking action aiming, chiefly, at a new segmentation of the market and product repositioning. The effectiveness to date of these strategies may explain the positive image of marketing in these countries, considered as a factor significantly influencing the innovation of enterprises as well as high scores of marketing knowledge and expertise in the process of building competitive advantage. However, it seems that so far implemented a model of innovation and marketing concept cannot be further used with success. The companies from the region have been indicating that the barrier to innovation is a lack of a positive customer response to the offer, which may be a prerequisite for having to move to a new model of innovation, referring to the concept of lateral marketing. Search for new product categories and new markets, appropriate to the new concept of innovation and marketing will require more financing, acceptance of higher risk activities and cooperation of many internal and external units within the enterprise and their networks.

Some hope for the company innovativeness development from transition economies is the fact that companies from these countries declare, twice more often than the EU-15 companies, the establishment of cooperation in the field of innovative activity, as shown in Table 5.

EU- 15	EU- 9	Czech Republic	Estonia	Latvia	Lithuania	Hungary	Poland	Slovenia	Slovakia	Romania
14	31	20	31	45	49	48	26	36	13	17
24	39	26	39	49	44	56	36	49	31	22
57	55	40	67	68	60	73	49	55	46	39
19	37	24	35	49	48	52	32	46	24	22
	EU- 15 14 24 57 19	EU- 15EU- 914312439575551937	EU- Czech 14 31 20 24 39 26 57 55 40 19 37 24	LU- 11LU- 9Czech RepublicEstonia14312031243926395755406719372435	FU-EU-CzechEstoniaLatvia1431203145243926394957554067681937243549	FU- 1EU- 9Czech RepublicEstoniaLatviaLithuania143120314549243926394944575540676860193724354948	FU- 10END 9CZECHD REPUBLICEstoniaLatviaLithuaniaHungary14312031454948243926394944565755406768607319372435494852	FU- 10ES- SepublicEstoniaLatviaLithuaniaHungaryPoland1431203145494826243926394944563657554067686073491937243549485232	FundSubsetEstoniaLatviaLithuaniaHungaryPolandSlovenia143120314549482636243926394944563649575540676860734955193724354948523246	HomeHomePolaneSloveniaSloveniaSlovenia14312031454948263613243926394944563649315755406768607349554619372435494852324624

Tab. 5. Enterprises with co-operation arrangements on innovation, as a percentage of	all
innovation enterprises by size-class	

Note: Data for Hungary do not include Mining and Quarrying

Source: Innovation activity in the new Member States and Candidate Countries. Activity, co-operation and sources. Statistics in focus. Science and Technology, European Commission 12/2004, p.4.

This applies, in principle, all size classes and types of business enterprises, whereat the observed differences are smallest in case of large enterprises. The leaders of innovative enterprise cooperation are here Hungary, Latvia, Lithuania and Slovenia, which means that innovative cooperation is developed in particular by large firms operating in relatively small markets. This may be due to the fact that large companies are implementing more advanced innovations, aimed not only at the local market, which requires greater cooperation with partners within the network. A similar situation was observed in the past in the EU-15 countries, when companies coming from a relatively small markets, were looking for innovative cooperation opportunities within the created

networks, giving them access to larger, more demanding markets and R & D resources. Undertaking an innovative collaboration with other entities is today the basis for the development of systemic innovation, allowing companies to offer products and services of such a nature, that they are relatively difficult to imitate and permitting these companies to build a competitive advantage not of individual enterprises, but rather of the whole network involved.

7. Conclusions

The conducted here theoretical considerations, supported by the results of empirical research and analysis of statistical data, indicate that the innovativeness levels of market-developed European economies and transition economies are today undergoing of the convergence process. Despite some lateness and barriers companies of the new EU member states increase the level of their innovativeness, realizing most often the traditional coupling model of innovation combining the technology-push and market-pull processes.

Identifying the limitations of the traditional model of innovation, these companies start an innovative collaboration with other entities, including foreign partners, mostly from European countries. At the same time they join innovative processes occurring in Europe and internationally.

The implementation of the innovation network model should allow them, in the future, to increase the degree of innovation and competitiveness to the level of their Western partners. The negative effect of networking of innovation processes, however, may be a gradual erosion of marketing image as an intraorganizational company function responsible for business innovativeness, as it is the case in today's companies that have already implemented the networked model of innovation. This does not mean that the impact of marketing, as a formula responsible for creating customer value on the process of innovation, will diminish. However, it will certainly require a different way of description, highlighting inter-functional nature of marketing as a process that goes beyond the framework of the company, which is implemented in an integrated and open innovation networks.

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Summary

The innovative processes that occur in companies usually consist of sequential, functionally specific, interdependent phases taking place within the company. A significant impact on the course of these processes still bear marketing departments, which makes the role of marketing in creating innovation a recognized and appreciated one.

Key words: marketing; innovative processes; transition economies.

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