

IMPLEMENTING NEW MARKETING STRATEGIES IN SCIENTIFIC AND RESEARCH INSTITUTIONS

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Introduction

The goal of this work is to show the character and dynamics of changes in the environment of companies and market institutions and highlighting the directions in which their marketing strategies are going as a response to new challenges. A detailed area of analysis is the sector of scientific, research and educational institutions, which has to adapt its activities to the requirements of the environment, taking advantage of the concept of relationship marketing and the concept of customer value management.

In the work secondary sources of information in form of specialist publications and research results of specialized agencies, as well as the results of the author's own research are used. Moreover, the work includes two examples presenting models of activity on the R&D market based on modern organizational-marketing solutions.

The development of marketing towards building relations and creating value

At the end of the 20th century a heated debate concerning the goals and general guidelines of marketing activities started. The debate changed the image of contemporary marketing in a significant way. Even though the original interpretation of marketing dates back to the 1940's and 1950's when the Definition Committee of the American Marketing Association (AMA) worked out and published an agreed definition of marketing, in the following years the understanding of marketing evolved leading to the emergence of the concepts of strategic marketing, relationship marketing, value marketing and in the recent years to marketing based on knowledge. In the group of mentioned marketing concepts **the concept of relationship marketing** (also called relational marketing or partnership marketing). The application of the concept in the sector of professional services, which includes the activities of the R&D sphere, allows us to take a modern view of the environment of scientific institutions with regard to building efficient marketing strategies.

Certainly, the main **reason** for the emergence of the above-mentioned marketing concept was the growth of importance of relations in the economy, as well as a new understanding of the sources of competitive advantage (especially on the industrial and service markets). The contemporary market and the competitive environment more and more often require cooperation instead of strong competition

and trying to subdue the opponent. In a situation where partners in the environment of an organization stop being anonymous and become more and more demanding, when interactions between them start to appear and the organization wants to encourage them to cooperate for a long time, building relations becomes necessary.¹

The concept of relationship marketing, which appeared at the beginning of the 1990's showed a complex character of relations of an enterprise with the environment and especially with its clients. This approach was the result of attempts to apply marketing concepts to branches associated with investment products and services. Especially the researchers from the so-called Nordic school of marketing, that is, Ch. Grönroos and his team, contributed to the development of this concept showing the differences between traditional marketing and relational marketing. Even though making profit is still the general goal of a company, achieving this goal requires – according to the concept of relationship marketing – building long-term relations with current clients of a company and other market partners (suppliers, partners, institutions from the business environment) and these relations are based on the satisfaction of the buyer and result in his loyalty.

Relational marketing points to limitations of influencing the market by means of marketing mix tools (4P or 5P) and pays special attention to such elements as the quality of product and the marketing comprehension of quality, client service, internal marketing, individual communication, loyalty programs.²

Currently, it is possible to distinguish groups from the marketing environment, which deal with relations, especially with relations in three following views:

- **relationship management,**
- **customer relationship management,**
- **relationship marketing,**

Moreover, research on particular areas of the market eg. investigating relations on the industrial market (B2B) and relations on the service market has developed. The essence of the above-mentioned researches is similar, they differ only in terms of the scope of researched relations and the characteristics of the investigated market.

Probably the best-known definition of relationship marketing is the definition by Ch. Gronoos describing relationship marketing as activities aimed at „identifying, establishment, maintaining and developing relations with clients and other subjects (stakeholders) in such a way that all sides achieve their goals“³

The roots of the discussed area of research definitely stem from service marketing, especially, from the achievements of the so-called Nordic School of Service Marketing. Its representatives headed by professor Christian Gronroos emphasized the importance of interactions between service-providers and service users, concluding that the smallest units of interaction, the so-called moments of truth, are cumulated

1 Ch. Grönroos, *Relationship Marketing: Challenges for the organization*, *Journal of Business Research*, 46, 1999, p. 328.

2 M. Pluta - Olearnik, *Zmiany strategii marketingowych w dobie społeczeństwa informacyjnego*, [w:] *Marketing instytucji naukowych i badawczych*, *Prace Instytutu Lotnictwa nr 208*, Warszawa 2010, p. 15-16.

3 Ch. Grönroos, *From marketing mix to relationship marketing: towards a paradigm shift in marketing*, *Management Decision*, 1994, vol. 32, no 2, p. 4.

into recurring episodes and sequences and as a result create service relationship.

The concept of relationship marketing worked out by Ch. Gronroos emphasizes six main traits:⁴

1. it strives to create new value for clients,
2. it points to double role of the client as a purchaser and a co-creator of value,
3. it emphasizes that the processes, communication, technologies and people in an organization have to focus on creating value,
4. it highlights the need for constant cooperation between the buyer and the seller,
5. identifies the so-called value of life cycle of a client,
6. strives to build a chain of relations within an organization in order to create value for: client, organization and its stakeholders, suppliers and intermediaries.

The idea of relationship marketing evolved and the basic values of creating long-term relationships were identified:

- cooperation,
- trust,
- involvement,
- communication,
- satisfaction.

As a result we can conclude that relationship marketing focuses on managing the relations of organization with subjects – stakeholders from its environment. The relations are continuous and long-term in character and the created common value allows both the organization and its clients to achieve their goals.

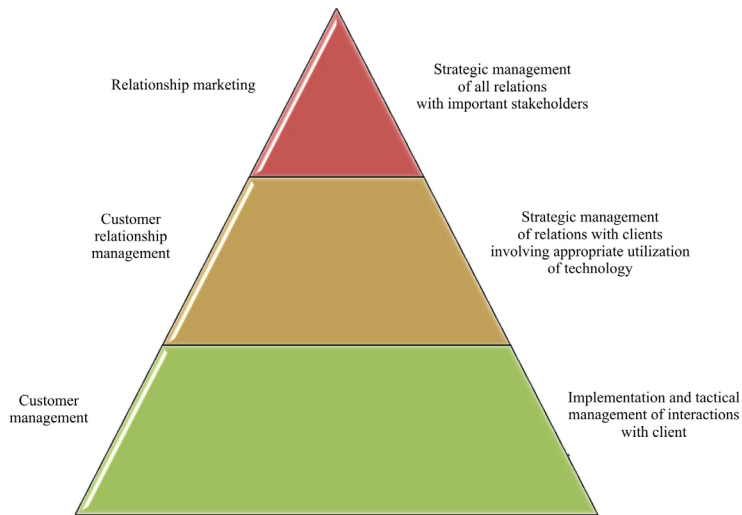
It is also worth mentioning here certain issues concerning terminology and namely the relation between close (in fact, in theory and practice these terms are often confused) terms like **relationship marketing**, **customer relationship marketing** and **customer management**.

Here, it is useful to resort to a view presented by A. Payne, who defines the hierarchy of these concepts. The author suggests that relationship marketing should be treated as a broad, strategic concept of managing relations with all stakeholders of a company and that customer relationship management should be treated as a narrower concept referring only to managing relations with customers. The lowest level in this hierarchy is the concept of client management, which covers only tactical actions associated with management of interactions with particular clients.⁵The hierarchy is presented on picture 1.

⁴ Ch. Grönroos, *Relationship marketing...*, op. cit., s. 333.

⁵ A. Payne, *Handbook of CRM. Achieving Excellence in customer management*, Butterworth-Heinemann, Oxford 2006, s. 18-24.

Picture 1. Relationship marketing and management of relations with clients



Source: A. Payne, *Handbook of CRM. Achieving Excellence in customer management*, Butterworth-Heinemann, Oxford 2006, p. 22

From a practical point of view an important goal is defining factors determining success in relation management. Researchers focusing on this area point to eight groups of factors determining this process:⁶

- relational factors: trust, engagement, cooperation, communication, keeping promises, satisfaction,
- resource factors: complementary and special,
- competence factors: managing cooperation, market competences,
- internal marketing factors: managing relations with employees of an organization,
- information technology factors: customer relationship management, databases,
- social policy factors (social relations),
- historical factors (achieved benefits, costs of ending relationships)
- market offer (quality, innovativeness, adapting to requirements, brand value)

The above-mentioned factors are elements which affect building relations and at the same time form relations. People researching relationship factors disagree on the matter which group of factors is most important. Some point to trust or engagement as key factors, others point to the quality of relations and satisfaction.⁷

⁶ S. D. Hunt, D. B. Arnett, S. Madhavan, *The explanatory foundations of relationship marketing theory*, *Journal of Business & Industrial Marketing*, no 21/2/2006, p. 78.

⁷ Szczegółowo omawia to zagadnienie A. Drapińska, *Zarządzanie relacjami na rynku usług edukacyjnych szkół wyższych*, PWN, Warszawa 2011, p. 158-164.

Durability and intensity of relationship of science and practice – contemporary challenges

It is necessary to stress here that the **concept of relationship** itself is not clearly defined in specialist publications, however, it is possible to highlight a set of common traits defining relationships:

- long period of duration of a relationship (relationship is a process),
- composed of smaller elements (interactions, episodes),
- interdependence of sides,
- existing bond, ties between subjects,
- continuity,
- sides are not anonymous,
- existing engagement (will to cooperate further),
- creating relationships requires assets (financial, time etc.).⁸

It is also worth discussing various kinds of relations distinguished by marketing researchers, especially:

- relations associated with exchange (*exchange relationship*), where the two sides expect comparable benefits,
- social relations (*communal relationship*), which are not directly associated with exchange of benefits.

The most comprehensive identification of kinds of relationships is provided by E. Gummesson, who distinguishes between 30 different kinds of relationships and allocates them to 4 groups of relationships:

- classic market relationships, that is, eg. relations between a supplier and a client (bilateral) or between supplier-client-competition (trilateral),
- special market relationships based on stronger ties with clients and building their loyalty,
- megarelations, which exist outside the market, but are a platform for creating market relationships (lobbying, public opinions, social and political alliances),
- nanorelations, which concern internal operations of organization between its particular cells, employees, management, the area of internal marketing.

Empirical research shows that both sides derive benefits from the cooperation of science and practice as a result of deeper (lasting and intensive) relations of cooperation in the long term.⁹ Long-term cooperation refers in essence to joint work on research and educational projects. Establishing mutual relations between universities and companies requires both sides to identify potential planes of cooperation, which cover:

- **correlating areas of research interests** of both sides, supported with the competences of staff. Both sides need the opportunity to obtain latest knowledge about the areas of activity and needs of potential partners. Lack of access to this type of knowledge may make it impossible to establish mutual relations,

⁸ *Ibidem*, p. 103.

⁹ Por. np.: M. Jacob, T. Hellstrom, N. Adler, F. Norrgren, *From sponsorship to partnership in academy-industry relations*, „R&D Management”, vol. 30, no 3, 2000, p. 255-262.

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- starting the very process of mutual exchange of knowledge requires at least partial „**overlapping of value systems and strategic goals**” formulated by potential partners. If universities and companies function in completely different contexts and have completely different value systems, establishing mutual relations may be impossible¹⁰,
 - it is also necessary to agree on the time and form of spreading the knowledge produced together and on copyrights to this knowledge. The universities’ willingness to present research results as fast as possible and to the possibly broadest group of recipient, may be a reason for conflict with companies, which prefer to keep new knowledge secret for as long as possible.

Maintaining effective, mutual relations between educational institutions and companies requires from both sides to cope with further challenges appearing in time. Maintaining a long-term relationship with companies may be jeopardized both by excessive growth and an excessive drop in intensity of these relations.

On the one hand making sure that companies work efficiently, requires certain modifications in their demand for new knowledge introduced in response to changing situation on the market. For this reason, **the intensity of previously established relationships can grow or subside in time.**

The intensity of relationships established between companies and educational institutions undergoes modification also under the influence of changes in general state of knowledge of a particular subject area. From the point of view of universities, relationships with companies will be the more intensive, the greater intellectual challenge is associated with solving the posed practical problems and the greater the opportunities of graduates of these institutions on the labour market are.

To sum it up, the intensity of relations between universities and students affects the speed of transfer of practical knowledge from companies to universities and the transfer of scientific knowledge from universities to companies. The higher the pace of the bilateral transfer of knowledge, the more intensive the mutual relations of both sides are. **The mechanism enabling effective cooperation of universities and companies, especially in the context of stimulating innovation, can be found in the so-called hybrid forms of organization of business activities.** An example of a fragment of economic reality, which implements the concept of hybrid organizational form on a middle level is a cluster. As it is also an example of desired network associations in the economy and science, in the following part of the work we will highlight the influence of the phenomenon of networking in the context of marketing.

Networking as the basis of relationship marketing on B2B market and source of competitive advantage

As has already been said, the concept of relationship marketing heavily focuses on the role of values within broadly regarded relations constituting the basis for building lasting, long-term position in a competitive environment. Such an approach is close to the networking approach which historically should

¹⁰ Por. np.: P. Maskell, *Knowledge creation and diffusion in geographic clusters*, „*International Journal of Innovation Management*”, vol. 5, no 2, 2001, p. 213-237.

be associated with the stream of industrial marketing developed by Scandinavian researchers already in the 1990's. Networking approach emphasizes issues of duration and stability of relationship, which drew the attention of contemporary researchers of sources of competitive advantage.

A starting point for the process of building new understanding of competition proposed by relationship marketing is polemic with the resource-based approach established in strategic management and its extension in form of trend based on competences, which drew attention to such „soft” resources as competences and skills of people. However, the claim that competitive advantage resides in the resources and competences of a company, limits the discussion to the activities of a single entity.

Representatives of the relationship approach correctly argue that sources of competitive advantage on the market go beyond an individual organization and cover a network of relations created in business. The value created in a constellation of business ties is a more durable – in comparison to the attributes of an individual company – source of competitive advantage.¹¹

Taking the above into consideration, in practice the activities of entities on the R&D service market the perspective of building a network of relations seems to be the desired plane of analysis, and not an individual organization with its resources and competences.

Value in business relation comes not only from the exchange of material and non-material resources (such as knowledge), but also from investing in relations, creating chances for building lasting business relationship based on trust and engagement.

Competitive advantage built on value in relationship seems to be the contemporary determinant of competitiveness of market entities.

As S.D. Hunt, D.B. Arnett, S. Madhavaram stress, new mode of competition between entities plays a major role in the development of market relations. The mode of competition is called *strategic network competition or network view of competition*. As opposed to the traditional model of competing focused on the company-company plane on every level (eg. producer-producer or supplier – supplier) and the so-called competition between hierarchies, the discussed strategic network competition is free of the disadvantages of both mentioned modes and offer new forms of market exchange between various organizations.

Companies functioning in a network agree to partnership activities and not directly competitive actions. As the success of each of these companies is associated with the success of the whole network, every entity within the network strives to achieve common goals.

The most important traits of network organization are:

- coordination of activities based on cooperation of entities in a particular sphere „within the organization” (technology, infrastructure, human resources etc.),
- joint decision-making by entities in a defined sphere of cooperation,
- recurrence of relationships between entities and maintaining them in the long term for the purposes

¹¹ I. Rudawska, *Budowanie przewagi konkurencyjnej opartej na trwałości relacji*, [in:] *Współczesny marketing. Strategie. Group work* edited by G. Sobczyk, PWE, Warszawa 2008, p. 181-182.

of achieving common strategic goals.¹²

Cooperation in a network takes place in the areas of:

- marketing,
- production,
- finance,
- purchasing,
- R&D.

Despite the fact that within a network companies are independent, cooperation in various areas results in that borders start becoming blurred and companies go from one-off, short-term exchange with a large number of suppliers towards long-term relational exchange with a smaller number of partners. Nowadays, there is a common conviction that effective functioning of an organization in the future will be determined by the set of networks, ties and relations in which the organization functions.

In practice, a well-known example of network organizations are the so-called cluster organizations (clusters). The most popular definition of clusters is the one by M. Porter. The definition will be discussed further in the article.

Clusters as a form of cooperation of R&D institutions and companies

M. Porter defined clusters as a „geographical agglomeration of mutually associated companies representing the same branch, their specialized suppliers, companies providing services to them, companies functioning in related and supporting sectors as well as organizations associated with these companies, like universities, training centres, R&D institutes, legal organizations, branch associations, public administration“.¹³

M. Porter points out that the scale of spatial concentration of a cluster defined this way may refer both to location of the mentioned entities in one city or district of a city, in a single region of a country or a region located in two different countries.

According to the estimates of *European Cluster Observatory*, in Poland there are 161 clusters qualified to the group of clusters that have a substantial impact on economic life.¹⁴ Above all, their areas of activity are those associated with local industrial traditions:

- clothing and textile clusters in the Łódź voivodship,
- aerospace sector clusters in the Podkarpace voivodship,
- clusters associated with the sectors of education, telecommunication, biotechnology, financial services, pharmaceutical sector.

¹² M. Porter, *On Competition*, Nowy Jork, Wydawnictwo Free Press, 1990, p. 248.

¹³ *Ibidem*, p. 248.

¹⁴ http://www.clusterobservatory.eu/galleries/downloads/Star_clusters_Poland.pdf

Example 1: Partnership in aerospace cluster¹⁵

Aviation Valley cluster (Podkarpackie voivodship) was established as a result of a bottom-up initiative in 2003. Local initiative of entrepreneurs, which was the result of needs of the involved entities (initially 18) was a good decision. The main goal of the cluster was to create in the South-East of Poland a competitive region that would supply international markets with a broad range of products and services for the aerospace industry.

Direct research carried out on a group of 53 companies concerning the role of partnership as a factor strengthening the competitiveness of companies from Aviation Valley cluster, made it possible to conclude, among others, that integration of subjects of a cluster is built based on such values as:¹⁶

- partnership,
- quality,
- innovativeness,
- creativity.

According to the surveyed managers from the companies forming Aviation Valley cluster, the process of building partnership requires: sharing responsibility, solidarity, trust, transparency of decisions. The above-mentioned survey concerned also the expected competitive and innovative potential of companies cooperating within the Aviation Valley.

With regard to the potential for growth of competitiveness such determinants as the following were mentioned:

- computerization of production processes,
- quality assurance systems,
- quality of machine park.

At the same time it was concluded that in terms of development of innovative potential the most important factors are the following:

- developing the knowledge of employees and the quality of intellectual capital,
- cooperation with research and scientific institutions,
- ability to implement innovations.

A particular venture aimed at boosting the innovative potential of the cluster, was the establishment of The Centre of Advanced Technology „Aeronet – Aviation Valley” in 2004 as a result of cooperation of entrepreneurs from the Aviation Valley with research and scientific institutions. The goal of the new entity within the cluster was working out, implementing and commercializing new technologies associated with aviation.

According to the report on R&D market in Poland published in 2011 by the Polish Information and Foreign Investment Agency (PAIiZ), in the coming years, that is, 2014-2020, cooperation of scientific institutions with entrepreneurs in form of clusters will be an especially visible area of support financed with public assets.¹⁷

According to the analysis of the Polish Academy of Sciences from 2009, in the Polish R&D sector there are 597 entities generating turnover on R&D activity. This group of companies spent a total of PLN 1.6bn on R&D activity.

According to the report, Polish enterprises cooperate in the R&D area with such partners as: universities, private R&D institutes, private laboratories and consultants, government sector and public scientific institutes (to a smaller extent).¹⁸

15 B. Bęberek, *Kapitał partnerski jako determinanta rozwoju klastra Dolina Lotnicza*, [in:] *Marketing przyszłości. Trendy. Strategie. Instrumenty, group work* edited by G. Rosa i A. Smalec, ZN nr 596, Uniwersytet Szczeciński, Szczecin 2010, p. 227

16 *Ibidem*, p. 229.

17 Raport titled. „Rynek B+R w Polsce. Wsparcie działalności badawczo – rozwojowej przedsiębiorstw”, *Accreo Taxand and PAIiZ*, Warszawa 2011, p. 54.

18 *Ibidem*. p. 14.

As table 1 shows, universities and private individuals are the most popular R&D partners of the surveyed entrepreneurs.

Until recently it was mostly entrepreneurs who created cooperative structures within the sector of companies (business sector). Cooperation between sectors, if it actually took place, was characterized by a comparably high share of outlays from outside the business sector, Authors of the report argue that in the future for companies from the R&D sector, cooperation with the public sphere may become cost-effective and thus it is possible to assume that it will gain popularity.¹⁹

Table 1. The scope of cooperation of companies with the R&D sector

Group of entities with which companies have started cooperation	Share of the cooperating companies in the total number of companies in Poland
Universities, technical schools and other higher education institutions	12%
Consultants, private laboratories or private R&D institutes	10%
Government sector or public scientific institutes	1%

Source: Report titled „Rynek B+R w Polsce. Wsparcie działalności badawczo – rozwojowej przedsiębiorstw”, PAliIZ, Warszawa 2011, p.16 (taken from: „Innowacyjność 2010”, PARP 2010)

The assessment of relationship of universities with companies – in light of selected research results

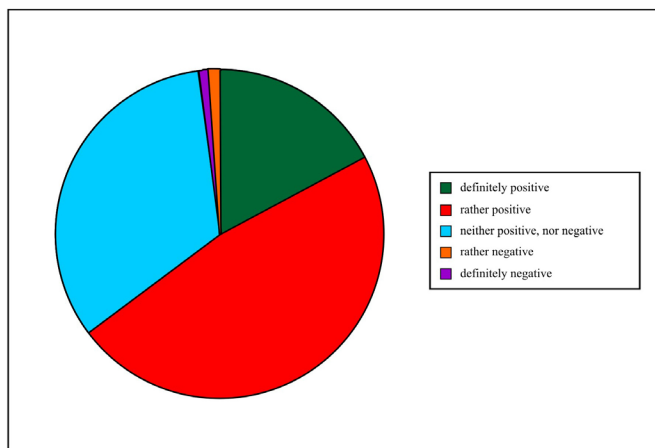
To confirm the thesis about the creation of relationship based on cooperation between practice (companies) and universities (as scientific and educational institutions) we will refer to direct research carried out under the leadership of the author of this work. We will point to selected research results concerning the effects of cooperation of these entities in light of opinions obtained from managers.

In empirical research an attempt was made to assess relations on the basis of forms carried out in practice and effects of cooperation of universities as educational and research institutions, with entities from their business environment, that is, companies²⁰. Particular attention was paid to the region of Lower Silesia, which is a potential area for the establishment of a „research and education cluster”. Research results have shown that over 70% of the surveyed managers have experiences in cooperation with universities and their opinions on this subject are shown on picture 2.

¹⁹ *Ibidem*, p. 14.

²⁰ Direct survey was conducted in 2009 on a group of enterprises constituting business environment of universities located in the region of Lower Silesia. The goal of the survey was to assess the scope and form of cooperation of enterprises and universities. 129 managers took part in the survey. See: M. Pluta-Olearnik, *Przedsiębiorcza uczelnia i jej relacje z otoczeniem*, Difin, Warszawa 2009, p. 96-105

Picture 2. The assessments of the effects of cooperation between business environment and scientific environment, according to managers (Lower Silesia)

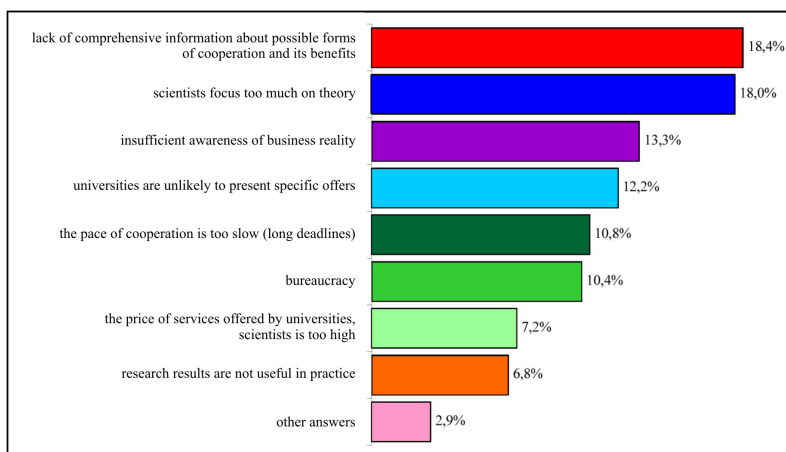


Source: on the basis of own questionnaires.

In light of the obtained results it is possible to notice that representatives of the business sector generally had good experiences associated with contact with universities (65% of opinions are positive). However, what is noteworthy is the fact that up to 33% of the surveyed have no precise expectations concerning the effects of taken actions or that there were other reasons for starting cooperation (not economic).

The surveyed managers also identified main problems they encounter when carrying out joint ventures with universities as business partners. The distribution of the obtained answers is shown in picture 3.

Picture 3. Problems in cooperation of companies and universities (managers' opinions)



Source: On the basis of own survey results.

It turns out that two main barriers in cooperation of business and science are totally different. On the one hand managers signal lack of information about the opportunities for cooperation and on the other hand they claim that scientists and universities focus too much on theory, which suggests that the effects of their work is of little use in practice. Whereas it seems that it is rather easy to solve the first problem, as it requires improving the system of universities' communication with the environment, the second problem is much more serious, as it signals a gap between huge potential of knowledge amassed at universities and its practical application. Other responses of managers confirm the existence of this gap in practice.

However, it is worth looking into this problem from a broader perspective. As numerous publications emphasize, universities and their scientific staff are undergoing a process of transformation towards a better understanding of practice and challenges of the so-called third generation university. In an economy „based on knowledge” a new role of universities and tasks of academic employees are being shaped. Until recently universities were focused on educating and research (Humboldt model). Now the time has come for transfer of knowledge and technology to economic practice. The era of the so-called third generation universities (3GU) is coming. The term refers to network universities cooperating with the industry, private research units, financial institutions and other universities.

A scientist employed in a third generation university (3GU) should:

- have international contacts, work in a network,
- be able to educate students basing not only on theoretical, but also practical knowledge,
- understand the needs of the market, clients,
- be able to commercialize the produced knowledge,
- understand economic practice and entrepreneurs,
- be entrepreneurial and willing to take risks.²¹

Thus, following the changes in the functioning of contemporary universities, their scientific and didactic staff should, to a much larger extent than before, display the knowledge of practice and behaviours similar to those of entrepreneurs.

Other, newly formed entities from the R&D and innovation sector in Poland, like the company from Lower Silesia described below, take part in the popularization of this model.

²¹ P. Kubiński, L. Kwieciński, L. Żurawowicz, *Naukowiec przedsiębiorcą. Własność intelektualna, Dolnośląska Platforma Promocji Przedsiębiorczości Akademickiej*, Wrocław 2010, p. 4.

Example 2: Wrocławskie Centrum Badań EIT+ Sp. Z o.o.²²

This company was established by Wrocław's universities and local authorities. Its main purpose is commercialization of research results, evaluation of projects with potential for commercialization as well as creating an infrastructure supporting the process of innovation. The company is active in such areas as: nanotechnology, ICT, energy and climate as well as natural sciences. The activities of EIT+ are supposed to fill the gap between entrepreneurs who want to implement innovations, but cannot afford to take high risk (especially financial risk) and scientists, who have at their disposal innovative solutions and opportunities for developing them, but don't have ties with the business environment.

EIT+ takes advantage of three technology transfer tools:

- Academy to Business (A2B), which promotes solutions known in the USA and Western Europe; companies invest some money in the activities of EIT+ and the experts employed by the company work on an innovation and prepare its implementation and the research results are commercialized (eg. by means of a license);*
- Accelerator (seed fund), which involves searching for products suitable for commercialization as well as starting cooperation between teams of scientists and entrepreneurs (eg. venture capital);*
- IP (intellectual property) management, that is, activities in the area of protection of intellectual property rights, patent protection, licensing.*

Conclusion

In the work the latest trends of changes in the strategies of entities from the R&D sector in Poland, targeted at building, maintaining and developing relationships, are highlighted. The most characteristic trait of these changes is not only their marketing (relational) character, but also an organizational breakthrough showing new, network models for achieving the goals of market strategies in cooperation of R&D entities with companies and entities from the environment of business. New forms of activity allow building deeper, lasting relationships and direct institutions towards creation of value for the customer in the long term. Such approach stabilizes the market position of an organization and allows it to gain a competitive advantage based not only on resources and competences, but also on market and social relations.

²² Opracowano na podstawie S. Stręk, Wrocławskie Centrum Badań EIT+ [in:] II Spotkanie Innowatorów - innowacje w sektorze Techno, DPPP, Wrocław 2011, p. 4.

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