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The significance of marketing for the development of research and development institutions : experiences of the The Research and Development Centre for Building Insulation Industry

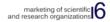
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THE SIGNIFICANCE OF MARKETING FOR THE DEVELOPMENT OF RESEARCH AND DEVELOPMENT INSTITUTIONS. EXPERIENCES OF THE THE RESEARCH AND DEVELOPMENT CENTRE FOR BUILDING INSULATION INDUSTRY

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Introduction

The contemporary market is subject to continuous, dynamic development and change. To a large extent, it is formed by the processes of globalization which naturally boost competition between companies, institutes and universities, forcing them to apply marketing management to their activities. The goal of such action is not only to attract attention or exist on the market, but also to facilitate commercial activity, building strong relations with clients and as a consequence, achieving success. Growth of competitiveness of services on the market has made marketing into an indicator which to a large extent determines the success or failure of both companies and R&D units. Above all, this encourages successive analyses of the market, learning about the needs of potential clients and skilfully shaping marketing strategy and elements of the marketing-mix. An important element to emphasize and which finds a reflection in the definition of marketing which has been accepted by the American Marketing Association¹, is undoubtedly generating and maintaining relations with the client, who currently has a broad choice in the world of global competition. According to the abovementioned term, marketing is: *"a function of an organization and a collection of processes leading to the generation of value for the client, delivering it and communicating about it. Processes, which also involve managing relations with clients, gaining this way benefits for both the organization and the stakeholders^{"2}.*

Promotion of research-development units

Promotion is one four instruments of the marketing mix, which constitutes an important factor of marketing strategy. It is a complex of actions and assets which R&D institutions use to inform the market³ about, among others:

their capacities and research concepts,

1 www.marketingpower.com, 30.10.2012.

² Definition quoted in the book: M. B. Wood, Plan marketingowy, Warszawa 2007, p. 13.

³ A. Pabian (ed.), Środki i formy marketingowego oddziaływania na konsumentów, Częstochowa 2008, p. 152.

- achievements,
- mission,
- strategy for development
- · their position on the market,
- characteristics of the unit,
- product offered.

The messages conveyed contribute to propagating knowledge about research-development units, leading as a result to generating an appropriate preference for them on the market⁴. For this reason they use various means of promotion. The choice of means of promotion is individualized and depends on the targets and needs assumed.

On the basis of research conducted⁵, it has been concluded that the promotional activity of many R&D institutions is usually characterized by an instinctive manner of marketing activity and lack of directed strategy aimed at achieving the targets desired. Undoubtedly, one of the main problems are the limited budgets allocated to promotional activities in these units and the lack of opportunity to use appropriate tools depending on the needs⁶. Nevertheless, over the last few years there has been a visible change in awareness of the power of marketing among scientists, which has been confirmed by the results of research conducted by Profile and the Ośrodek Badań Lokalnych on the initiative of the Ministry of Science and Higher Education⁷. It has been shown that scientific institutions do plan and take a series of marketing measures, but that their activities should be more intensive.

Among the preferred and most frequently used tools of promotion of R&D units are:

- scientific publications,
- seminars,
- conferences,
- · thematic meetings,
- Internet websites.

The tools presented above are not very effective and have a specific negative trait – the fact that their group of recipients is very limited. Additionally, it is necessary to emphasize that relatively often information presented on the websites of R&D units doesn't show the components of promotional activity of these units and is limited only to elementary data concerning the institute. At the same time, scientific and research achievements are usually presented only in form of titles of publications. It is also uncommon for R&D units to address the business environment with their websites.

Specialist guidelines which concern generating a system of promotion of research and science, as well as the desired efficiency of used marketing instruments, have been presented in detail in the publi-

MNiSW, Warszawa 2007.

⁴ A. Sznajder, Sztuka promocji, czyli jak najlepiej zaprezentować siebie i swoją firmę, Warszawa 1993, p. 4.

⁵ Szczegółowy opis wyników badań w publikacji: I. Iłowiecka-Tańska, Promocja w nauce. Poradnik dobrych praktyk,

⁶ Ibidem, p. 6.

⁷ Ibidem, p. 6-7.

cation *"Promocja w nauce. Poradnik dobrych praktyk* (Promotion of science. Guidbook of good practice)"⁸. The book identifies the following group of functional means for promoting science and research:

- Internet (e.g. email, monitoring and updating knowledge),
- own materials from scientific units (e.g. reports, posters, gadgets),
- establishing promotion groups implementing elements of public relations.

The system of communication of R&D institutions with the "external world" constitutes a necessary tool in shaping their positive image, popularization and conveying messages concerning the achievements in a specialized area of science, conducted research activity, as well as starting cooperation with entities dealing with commercial activity. The effect of these activities is not only building a bridge supporting the transfer of knowledge, but also commercialization of the results of research carried out in scientific and research institutions.

Cooperation of R&D institutions and the business environment. Why is it worth starting

Communication between the scientific environment and representatives of business is hampered. The main reason for this is not only the completely different understanding of seemingly identical notions⁹, but also the existence of barriers caused mainly by¹⁰:

- lack of knowledge about the opportunity for conducting joint projects,
- · accusing scientists of excessively theoretical approach to a particular issue,
- recognizing, relatively often, the products of scientists as products that don't satisfy basic market standards,
- ignorance of scientists on the existing commercial reality and the market on which a company is prospering,
- mutually passive approach,
- high cost of scientific research,
- growth of competitiveness in obtaining funds,
- · lack of specified offers of cooperation from scientific centres,
- failure to recognize the purpose of mutual cooperation and regarding it as redundant.

A common element linking scientists and entrepreneurs is unfortunately expressing disappointment with the excessively passive approach of the state towards the promotion of transfer of innovation from science to the economy¹¹.

The results of research showing the degree of mutual cooperation of research-scientific institutions with the representatives of the world of business give some reasons for optimism. It has been shown that in a group of companies, over half (55%) have the awareness and desire to take up cooperation by ordering research and 40% have never taken advantage of the advisory capacity and the potential

⁸ Ibidem, p. 53.

⁹ http://www.laboratoriatv.net/pl/artykuly, 7.11.2012.

¹⁰ Bariery współpracy przedsiębiorców i ośrodków naukowych, Raport MNiSW, Warszawa 2006, p. 19.

¹¹ http://kbn.icm.edu.pl, 5.11.2012.

of scientific employees in a specialized field. At the same time, analyzing actions aimed at mutual cooperation taken by scientists, only 15% declared that they would not be willing to start such cooperation at all¹². Undoubtedly, building mutual relations and maintaining them is a difficult skill and in order to reach a mutual consensus it is necessary to try to find all planes that would make it possible to carry out all collective plans. Above all, it is necessary to strive to match the areas of research interests of companies and R&D institutions, supported with documented professionalism and many years of experience of employees. Moreover, a necessary condition leading to the establishment of lasting relations is obtaining updated information, both about the scopes of activity of both sides and the needs of potential partners. However, if companies and R&D centres have completely different sets of values and have no common strategic goals, this could be a serious obstacle hampering the establishment of mutual relations. Another important element in the creation of lasting connections is trust building, which to some extent eliminates the emergence of a series of fears among both the representatives of business and research and development units.

In order to raise the competitiveness of the Polish economy, it is necessary to take action leading to the propagation of innovative research ventures, and implementing innovative projects and the assumptions made with regard to them. For this reason, it is important to make both spheres realize the advantages arising out of cooperation. Among the advantages of the abovementioned cooperation, which were presented and discussed in detail in the report *"Bariery współpracy przedsiębiorców i ośrodków naukowych"*¹³, (Barriers to the cooperation of entrepreneurs and scientific centres), there are:

- facilitated access to the latest sources of knowledge,
- growth of competitiveness,
- financing scientific research optimizing technological processes,
- intellectual and financial benefits for research-scientific units,
- the opportunity to implement modern and innovative solutions,
- creating new jobs.

Promotional activity of the Research and Development Centre for the Building Insulation Industry (COBR PIB)

COBR PIB is a research institute by the definition provided by the Act on Research Institutes¹⁴ – a public organizational unit, separated in legal, organization and financial-economic terms, which conducts scientific research and development work aimed at implementation and application in practice.

The Institute has been functioning on the Polish market since 1950. It has been running research and development and implementation work associated within the area of building insulation. The Institute deals not only with normalization, certification and approval, but also provides professional and diligent quality testing services in an accredited laboratory.

¹² Bariery współpracy przedsiębiorców i ośrodków naukowych,... op. cit., p. 5, 17.

¹³ Ibidem, p. 11-12, 20-21.

¹⁴ Act on research institutes from April 30, 2010, Chapter 1.

COBR PIB's promotional activities conducted by marketing communication, leading in consequence to activating originally planned ventures and waiting for the reaction of potential clients or stakeholders. In the current times of global development of the market there is no chance to promote the image of the Institute and its "product" (i.e. services for the industry) without communicating with the market. This is shown very well by the words of Heribert Meffert, who pointed out that "every transaction of market exchange constitutes an element integrated with many acts of communication".¹⁵ At the same time, taking the concept of integrated marketing communication into consideration, it is possible to conclude that promotion, despite its own functional and instrumental autonomy, doesn't just constitute an autonomous and self-contained instrument of the Institute's influence on the market¹⁶.Marketing communication is a tool for the implementation of a development marketing strategy, precisely linked with the basic elements of marketing-mix, that is, product, price and distribution¹⁷.

In the preparation of COPR PIB's marketing strategy the following tools were used:

- external marketing, including basic instruments of classic marketing mix, enriched with client service and leading to strengthening mutual relations,
- internal marketing providing support from employees of the Institute,
- partnership marketing.

Among the basic goals adopted in the strategy there were:

- creating a beneficial and coherent image of the Institute,
- growth of competitiveness of services offered on the Polish and international market through investment in equipment and research-measuring devices,
- · initiating cooperation with representatives of Polish and international business,
- gaining new partners at scientific and research and development institutions both in Poland and abroad,
- popularization of conducted projects and research subjects and their role in the development of the national economy,
- aiming promotional tools at a broader group of recipients,
- investing in intellectual capital by attracting experienced scientific employees,
- raising the qualifications of people employed at the Institute,
- making employees realize the meaning of building and taking care of the COBR PIB brand.
 The target group of recipients of marketing communication was defined. The group includes:
- current and potential clients and stakeholders,
- R&D units,
- universities,
- · foreign research-scientific institutions,
- potential market leaders,

16 J. W. Wiktor, Promocja – system komunikacji przedsiębiorstwa z rynkiem, Wydawnictwo Naukowe PWN, Warszawa 2005, p. 62.

¹⁵ H. Meffert, Marketing. Grundlagen der Absatzpolitik, Gabler, Wiesbaden 1986, p. 443.

¹⁷ http://pl.wikipedia.org/wiki/Kompozycja_marketingowa, 6.11.2012.

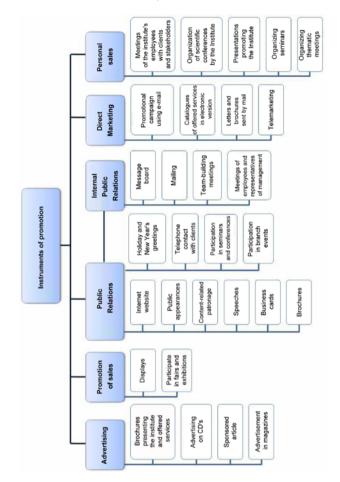
- public opinion,
- opinion-making circles.

Taking into consideration the characteristics of the scientific research and development work conducted in the area of technical sciences (building, material engineering), COPR PIB in its operations uses a number of forms of marketing communication (picture 1).

The Institute communicates with the market by means of a promotion mix, striving to synchronize and integrate activities from all its areas: advertising, promotion, sales, public relations, direct marketing and personal sale, in order to achieve the highest possible efficiency. On the basis of its own observations it is possible to conclude that the main value of integrated communication with the environment is undoubtedly reaching a broader group of potential clients or stakeholders with information on the Institute, its activities, and services offered. A point of reference was the originally used manner of behaviour, which involved selective utilization of particular instruments of promotion mix.

Among the most basic forms of promotion of scientific employees and employees of COBR PIB, their experience and scientific-research achievements are: organizing and cooperating on the organization of thematic meetings (devoted to the most up-to-date issues associated with conducted research), as well as publishing the achieved research results. The above-mentioned forms of marketing communication are characterized by national and international coverage and are aimed both at the representatives of scientific environment and business. These meetings allow:

- learning about the latest directions of research,
- acquiring information on innovation in the area of research on materials applied in the construction industry,
- gaining further educational experience,
- · exchanging opinions among the best scientists,
- conceiving innovative ideas and the opportunity to implement them in the parent centre.



Picture 1. Instruments for the promotion of activities of COPR PIB.

Source: Own materials.

The characteristics of COPR PIB's operations also involve participation in: scientific conferences, seminars, symposia and discussion panels. The Institute also conducts activities aimed at popularization of the institute's research results and achievements. These activities include organization and participation in meetings at which the solutions worked out by the Institute are presented eg. Euro-Centrum Cluster of Energy Saving Technologies, participation in exhibitions and branch fairs, for example, the International Fair of Road Construction Industry in Kielce.

Currently, the Institute is at an advanced stage of planning and coordinating actions aimed at the organization of an international scientific symposium titled "Materials for heat insulation - research and measurement". The Institute is cooperating with the German company Netzsch Analyzing & Testing¹⁸,

¹⁸ http://www.netzsch-thermal-analysis.com/pl/home, 7.11.2012.

on the organization of the symposium. The German company specializes in the production of devices for thermal analysis and identifying thermo-physical properties. Last year COBR PIB purchased a device from Netzsch for measuring the ratio of heat transmission and heat resistance of flat products, allowing measurement over a broad range of temperatures, from -160°C to +700°C¹⁹. It was acquired in the course of a project financed by the European Regional Development Fund in the scope of Action 1.3 "Transfer of technology and innovations" of the Regional Operational Programme of the Voivodeship of Silesia for the period 2007-2013 (co-financing amounts to 40%). Currently, COBR PIB is the only centre in Poland and Central Europe which is able to measure the ratio of heat transmission in fixed states across such a broad range of temperatures. This makes the Institute highly competitive in the area of research services offered, among other R&D units both on the Polish and the international market. Additionally, COPR PIB is applying for subsidies from the abovementioned European Regional Development Fund for the purchase of further innovative devices. The function of this equipment is to measure the heat con-ductivity of cylindrical objects (temperature range is -40° C to $+600^{\circ}$ C). As a consequence of this the activities of the the Research and Development Centre for Building Insulation Industry lead not only to the achievement of the predetermined goals, but also have a substantial impact on the development of the national economy, by attracting partners from the international market, that is, Europe, the Middle East and Far East, as well as North America. Currently, international clients constitute a numerous group (about 50%). COPR PIB offers them research services in an accredited laboratory. A high degree of trust confirms the professionalism of the research conducted, their compliance with documented methods and requirements of the client, as well as the rules of the management system implemented. Among the institution's clients there are entities from Germany, Finland, Holland, Romania, Italy, Ireland, Belgium, Czech Republic, Switzerland, Greece, Belarus, Lithuania, Serbia, Austria, Slovakia, Denmark, Estonia, UK, Turkey, United Arab Emirates, Russia, China, Korea, Thailand, Canada and the United States.

Another undoubtedly significant element of promotion at COBR PIB is public relations, which is a far-reaching marketing strategy of the Institute. It is organised to form a positive image of the Institute, and build its trustworthiness²⁰.

Among PR measures used to achieve the company's strategic premises are:

- · Internet website which is being continuously modernized and modified, www.cobrpib.katowice.pl,
- brochures and business cards with the logo of the Institute,
- sending New Year's and holiday greetings,
- cooperation with the media, e.g.:
 - sponsored article XV Jubileuszowa Gala Budownictwa, II Edycja Konkursu Nagród i Wyróżnień Śląskiej Izby Budownictwa "Śląskie Budowanie", 2012,
 - Technical patronage Conference IZOLACJE 2012 "Wyzwania Współczesnego Budownictwa w Dziedzinie Izolacji" (Challenges of Contemporary Building Industry in the Area of Insulation),

¹⁹ A description of the device is available in an article by A. Miros, titled: Wyroby płaskie do izolacji cieplnej wyposażenia budynków. i instalacji przemysłowych, IZOLACJE, 2012, nr 9, p. 44.

²⁰ K. Wójcik, Public relations od A do Z, Agencja Wydawnicza Placet, Warszawa 1997, p. 121.

- Technical patronage Conference IZOLACJE 2013 "Rola izolacji w nowoczesnym projektowaniu i architekturze" (The role of insulation in modern design and architecture),
- staying in touch with clients and stakeholders by means of phone conversations. .

One of the basic areas for the utilization of public relations techniques are ventures directed to the employees of COBR PIB. This means internal PR. Its main goal is generating a real dialogue with the internal community. Information policy at the Institute is bilateral in character.

The management of COBR PIB regularly provides its employees with information concerning:

- rules of functioning of the Institute,
- rules of mutual cooperation,
- measures and action taken,
- internal characteristics of operations.
 At the same time, actions taken by COBR PIB which support internal communication include (Figure 1):
- training and courses raising professional qualifications,
- incentive trips.

The entirety of internal PR has a positive impact on the motivation, integration and identification of the employees with the research unit, which makes it easier to build relations with the external environment. Mistakes appearing in communication are rapidly corrected.

The thought-out model of COBR PIB promotional activities was also based on the concept of relationship marketing, also called partnership marketing. To this point, there is no single commonly accepted definition of the term of relationship marketing. What has been recognized as the original form is the concept of L. Berry, *"relationship marketing is creating, maintaining and enriching relations with the client, where attracting a new client constitutes only the first step in the process of marketing"*²¹. At the same time, according to P. Kotler's definition it *"means creating, maintaining and strengthening good relations with clients and other external partners of a company"*²².

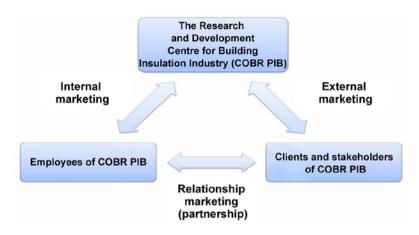
In a research-scientific unit, during the provision of specialist research services, relations between an employee and a client based on bilateral communication are established²³. Achieving the defined marketing targets is associated with the need to take heed of the relations not only of the Institute with the client or stakeholder, but also to take care of the person who directly provides a particular service. Hence the use of all these types of marketing (picture 2):

- external,
- internal,
- relationship marketing (partnership).

²¹L. Berry, Relationship marketing, w: L. Berry, G. L. Shostack, G. D. Upah, Emerging Perspectives on Services Marketing, American Marketing Association 1983, p. 26.

²² Ph. Kotler, G. Armstrong, J. Saunders, V. Wong, Marketing – podręcznik europejski, PWE, Warszawa 2002, p. 170. 23 Z. Kędzior, J. Pyka, U. Zagóra–Jonszta, K. Znaniecka, T. Żabińska (ed.), Konsument, przedsiębiorstwo, przestrzeń, Akademia Ekonomiczna im. Karola Adamieckiego, Centrum Badań i Ekspertyz, Katowice 2004, p. 337.

Picture 2. Mutual connections between internal and external marketing, as well as relationship marketing.



Source: Own materials.

The concept of classic marketing is focused mainly on acquiring a client, but in this approach there are no tools helping to keep the client. For relationship marketing, the course of action involves two phases, namely:

- initial, identical with typical marketing,
- proper, which is supposed to maintain and constantly strengthen the relationship started.

Implementation of relationship marketing results in the establishment of long-term and profitable relationships with a selected and crucial group of partners, thanks to actions targeted at²⁴:

- value of the offer for the client,
- satisfying manner of service,
- strengthening the client's emotional ties with the Institute,
- redefining the assumptions of marketing-mix,
- individual approach to the client,
- building employees' partnership with clients,
- continuous contact with the client.

Summing up, among most important elements of marketing relationship management there are the following²⁵:

- flexible and coherent application of various channels of communication,
- · generating databases concerning clients,
- 24 B. Pawłowska, J. Witkowska, L. Nieżurawski, Nowoczesne koncepcje strategii orientacji na klienta, Wydawnictwo Naukowe PWN, Warszawa 2010.

²⁵ http://www.statsoft.pl/czytelnia/marketing/relacyjny.pdf, 7.11.2012.

- designing a system for the presentation of data,
- segregation and archiving of documents containing information concerning relations with clients.

Conclusion

In the contemporary economy having knowledge correlated with the ability to use this knowledge is becoming a basic source of competitive advantage. The ongoing political, technological and economic changes observed over recent decades have given an innovative direction to global economy, called economy based on knowledge. In an economy viewed from this perspective institutions which conduct scientific and research works, generate and commercialize own intellectual abilities play a major role. These institutions should also be focused on transferring technology to economic practice. All of this boils down to making these institutions take up particular marketing activities (promotion) focused on:

- mutual competition, for the purpose of obtaining e.g. orders from entrepreneurs for research,
- competing for scientists or students.

In its marketing activities, COBR PIB takes advantage of most standard instruments of promotion and their utilization is highly intensified. These activities, which have a local, national and international reach contribute not only to maintaining the current position of COBR PIB on the market, to further development and better functioning of the Institute, but also to the improvement of the Institute's beneficial and valuable image.

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