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SCIENCE NEEDS GOOD PUBLIC RELATIONS: A Marketing Approach to Science-Industry Relations

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Introduction

Let's start with basic relations: A country's innovativeness depends on various factors. Among them is a scale of the commercialization of scientific achievements. The scale of the science commercialization is one of results of an intensity of co-operation between science/the R&D sector and industry/enterprises. A good, i.e. wide and intensive co-operation is favourable to the science commercialization and – in this way – to the economy's innovativeness. So, science-industry relations (SIRs) are here of a crucial importance. A state of SIRs is dependent, among other reasons, on a level of public understanding of science (PUS). A high PUS level well serves the cause of SIRs. In turn, PUS depends mainly on science communication with society as a whole, in this case, with industry or the business sector. A high level of PUS is then one of results of a good communication between science and industry.

Results of the commercialization, i.e. of practical implementation of scientific achievements, are technological innovations. As known, innovation 'stands on two legs': one leg still lies in R&D and another one already lies in Production. Therefore, the 'passage' between R&D and Production is very important and so science-industry relations.

In this paper, Poland will be a case-study. By the end of the 80s, we had a centrally planned economy and at the beginning of the 90s, radical politico-economic reforms started. The essence of the transformations has been an introduction of free-market forces into the national economy together with its deep restructuring. Innovations are expected to play a key role in the economy's restructuring. As a legacy after the previous system, at the beginning of the transition, there existed two separate 'worlds' in the Polish economy, i.e. science and industry. In detail, we had:

- low level of the economy's innovativeness,
- small scale of the science commercialization,
- narrow co-operation between science and industry,
- poor state of SIRs,
- low PUS level, and
- bad communication of science with industry.

The present state of the affairs is still unsatisfactory and needs improvements.

Public relations as an element of marketing communication

The essence of the communication process is that a sender sends a message and a receiver reacts on it, so there is a two-way exchange of messages. The sender or communicator must answer three key questions :

1. Whom he/she wants to communicate with? (**A**udience),
 2. What to communicate? (**M**essage),
 3. How? (**T**ools),
- which may be called as **an AMT approach**.

With the communication of an organization with its environment, a concept of public relations (PR) is closely connected. In literature, the concept is understood in various ways. Bernays (1955), e.g., treated PR as an element of the social communication. Authors of Marketing course-books universally consider PR as a component of so-called marketing-mix (Lazer and Culley, 1983; Kotler, 1991; Schoell and Guiltinan, 1995). In turn, Black (1993), Scott et al (1994) and Gregory, ed (1998) treat PR as an element of a firm's management. E.g. in Black's opinion, PR is wider than advertising or propaganda, and goes far beyond marketing. Also many authors, including marketers, agree that PR is a broader concept than marketing.

As known, the concept of **marketing-mix** contains **4Ps**: product, price, place (or distribution) and promotion. **Promotion**, being the main subject of my interest, is an information activity with a purpose to promote (back up) a product/service and its producer/seller. So, the organization is here an information sender, and a potential client is an information receiver. This component of marketing-mix is now more and more often named just **communication**. Of course, not the change of name is important but the essence of this activity. Although its aim remains the same, this **P** is, nowadays, treated as a complex way of communicating between the organization and the market where there exists a permanent exchange of information (feed-back) between the two. **Public relations** is one of four 'classic' forms or tools of marketing communication, besides advertising, personal selling and sales promotion.

The role of PR as the communication instrument considerably increased in the last decades.

'As the power of mass advertising weakens owing to rising media costs, increasing clutter and smaller audiences, marketing managers are turning more to PR. Clearly, public relations can make a memorable impact on public awareness at a fraction of the cost of advertising. The company does not pay for the space or time obtained in the media. It pays for a staff to develop and circulate the stories and manage certain events. If the company develops an interesting story, it could be picked up by all the news media and be worth millions of dollars in equivalent advertising. Furthermore, it would have more credibility than advertising. Some experts sat that consumers are five time more likely to be influenced by editorial copy than by advertising' (Kotler, 1991, p.643).

Differences between marketers and PR specialists are not so big. For Kotler, who calls PR 'a marketing stepchild', the main aim of PR is to create a company's positive image. For Black, it is a good reputation and proper publicity. Similarly, for Gregory (1998) and Pluta (2001), a firm's positive reputation is most important here. Kotler mentions ten following PR tools: press kits, speeches, seminars, annual reports, charitable donations, sponsorships, publications, community relations, lobbying and identity media, while Black embraces these in five groups:

- (1) a written or spoken word,
- (2) exhibitions and conferences,
- (3) lobbying,
- (4) parliamentary contacts and
- (5) sponsoring.

As can be seen, both of them mention similar instruments. For instance, they include sponsoring and lobbying into PR, although in literature, there are authors who consider these separately.

The essence of public relations is well presented in the book *The Essentials of Public Relations*: PR is a science and art of achieving a harmony with the environment through a mutual agreement based on the real and full information. And philosophy of PR assumes that aims are being achieved easier with a social understanding and support than with an opposition or indifference (Black, 1993). The science sector, of course, needs the harmony with its environment and the mutual understanding and support from society. This proves that public relations as a communication tool is fully useful here.

In Poland, **science needs good public relations** because of the following reasons:

- 1) There have appeared symptoms of a crisis in the Polish science, mainly from a financial point of view.
 - ☞ One of spheres of PR activities is just reacting to the organization's difficulties.
- 2) As mentioned, a low level of PUS exists in the country.
 - ☞ An influence of PR on the general public allows neutralizing hostile opinions and strengthening

- favourable opinions,
- 3) There is a lack of agreement among political elites that science (together with education) should be a priority in the country's development.
 €PR's aim is to achieve a mutual agreement and consensus via dialog.
 - 4) Managers in research organizations do not have enough skills to run marketing actions.
 €PR, which is a broader concept, can support and sometimes even replace some shortcomings in marketing activities of R&D institutions.
 - 5) Soon Poland will join The European Union and so a competition will grow between research institutes – in the country and in Brussels.
 €PR actions run by R&D organizations allow them to strengthen their positions in 'the R&D market'.

Polish experiences

Generally speaking, in Poland we had good experiences in (political) propaganda within the previous system but very little experience in the field of PR. According to a recent questionnaire research among employees in 374 small and medium-sized enterprises (Pluta, 2001), as many as 40 % of them do not know a concept of PR; and only 5 % of the surveyed firms have a separate PR unit reporting directly to the board of directors. So, a general picture of PR in the country is unfavourable.

As far as public relations of science is concerned, we already have certain experiences in this field. The main institutions responsible for the science communication with society (in Poland, we call it a dissemination, popularization and promotion of science) are:

- The Ministry of National Education,
- The State Committee for Scientific Research,
- The Polish Academy of Sciences' Centre for Science Dissemination,
- The Polish Foundation for Science Dissemination,
- and, of course, mass-media.

The Ministry of National Education plays, unfortunately, a very small role in this system. In turn, a crucial role of media in the area of PR is here obvious. Therefore, let me shortly describe activities of the three remaining institutions (Jasinski, 2001).

The State Committee for Scientific Research (the KBN):

- Established in 1991, previously The Council of Ministers' Committee for Science and Technology,
- The KBN chairman has a status of Minister of Science,
- Collective body of scientists by election,
- Main functions:
 - to run public science policy and
 - to distribute state funds for R&D
- Two advisory teams:
 - Science Promotion Advisory Team and
 - Advisory Team for Science Dissemination and Scientific Information,
- * The main aim of both teams: to award financial resources as a co-financing, by applications, of various initiatives concerning the science dissemination, popularization and promotion,
- Some role being played by the Information Processing Centre at the KBN.

The Polish Academy of Sciences' Centre for Science Dissemination:

- Established in 1989,
- A legal form: the Academy's organizational unit,
- Employment: 45 people (in 2001) but ca 15 engaged in the core activity,

- The main aims:
 - permanently collecting the information on directions of science dissemination in Poland and other countries,
 - initiating and conducting research concerning science dissemination in the country and abroad,
 - undertaking various actions for better science dissemination and popularization in Poland.

The Polish Foundation for Science Dissemination:

- Established in 1990,
- A legal form: a non-profit, non-governmental organization (NGO),
- The main founder: the Polish Academy of Sciences,
- Employment: five people (in 2001),
- The main aims:
 - to organize information systems on scientific achievements,
 - to subsidize Polish scientific centers abroad, scholarly societies and schools engaged in the science dissemination,
 - to conduct publishing, film and audiovisual projects, lecturing activities, training courses, etc,
 - to help researchers and other individuals in their efforts for the science dissemination and popularization.

Let me shortly describe the role of Science Promotion Advisory Team (SPAT) at the KBN. (Author of this paper is a member of SPAT). The Team's support goes in the following directions:

- a) presentation of a crucial role of science in the modern society,
- b) dissemination of information on worthy scientific achievements,
- c) informing entrepreneurs about benefits on the application of the R&D results, including fiscal preferences, and
- d) promotion of scientific interests in society, especially among young people.

However, the main effort in the field of the science-communication activities is being undertaken by their initiators, i.e. scientific institutions, which constitute three sub-sectors of the Polish science sector:

- (1) higher education institutions (HEIs),
- (2) the Polish Academy of Sciences' research institutes, and
- (3) branch R&D institutions subordinated to various ministers.

(In Poland, a sector of firms' in-house R&D units is almost non-existent).

As far as Polish initiatives for the science dissemination, popularization and promotion are concerned, apart from publications which are a natural tool of the science-society communication, one can mention for instance (data from various KBN internal reports):

- Science Festivals in various regional centers: 6 in 2001 and 7 in 2002 with the audience ca 150.000 people per year,
- Scientific Picnic in Warsaw, the capital of Poland: every year since 1997,
- Press conferences or scientific conferences with the participation of journalists, organized mainly by the Science Dissemination Centre at least once a year,
- Participation of research institutions in domestic fairs and exhibitions: 4 in 2000 and 5 in 2001,
- Participation of them in foreign fairs and exhibitions: 4 in 2000 and 6 in 2001,
- TV films and programmes, and radio broadcasts, financed mainly by the KBN, e.g. such cyclical programmes on TV as:
 - 'Proton' showing the latest developments in the world's science and
 - 'Polish Nobel' presenting recent Polish scientific achievements and their authors.

For example, the latest VI Scientific Picnic, as usually organized by The Polish Radio Bis, a state-owned broadcasting company, took place on 8 June 2002. It was the biggest popular-scientific happening in Central and Eastern Europe; many people, mainly youth, attended. The main sponsor was The Polish Post Office. A

chairman of Honorable Committee was president of the earlier mentioned Polish Foundation for Science Dissemination. A financial support was given by The Town Hall and the State Committee for Scientific Research.

Although the above initiatives seem very interesting and should be continued, nevertheless, the following reservations can be formulated here (Jasinski, 2001):

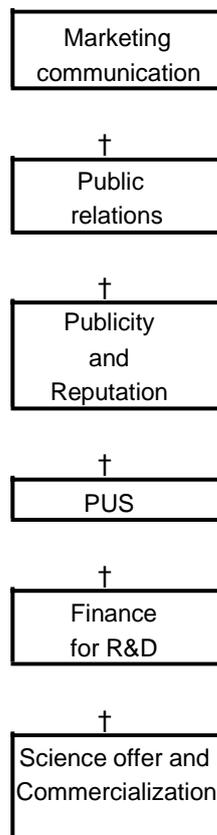
- 1) the main stress put on the dissemination and popularization rather than on promotion of science,
- 2) too small the funds, mainly state-owned, spent for these activities,
- 3) too narrow the scale of the activities,
- 4) dominated by the Polish Academy of Sciences, most active in this field,
- 5) too limited the Ministry of Education's contribution,
- 6) too small the engagement of local governments.

But **the main accusations** towards those activities are:

- the actions are not addressed to concrete groups of receivers because such audiences are not precisely defined, and
- it's hard to find the complex PR approach in all the actions.

A desired role of public relations

This state of affairs needs improvement. The philosophy of public relations as an element of marketing communication may be very helpful here. One can imagine that the following mechanism will function:



Thus, from the view-point of a scientific institution, we can expect the following, chain reaction:

- (1) **skilful** marketing communication,
- (2) **appropriate** public relations,
- (3) **wider** publicity and **good** reputation, (4) **better** public understanding of science,
- (5) **more** finance for research and development,
- (6) **wider** science offer and commercialization.

In the case of science, **public relations consists in the presentation, to the environment, of its activities and all functions of science - as a public good – in the process of satisfying social needs.** Following Black's classification, PR tools can be formulated in this case as follows:

- written and spoken word – mainly via academic teachers and their publications,
- exhibitions, fairs and conferences - where conferences are a typical form of the scientists' work,
- sponsoring – in favour of science,
- lobbying – conducted by the science representatives and addressed to the government, and
- parliamentary contacts – via scientists-MPs.

According to the earlier mentioned AMT approach, a starting point should be an identification of strategic groups of information receivers, in marketing called as target markets. Here we shall speak about **target audiences**. In Poland, e.g., PR actions being undertaken by scientific institutions should be mainly addressed to:

1. Politicians, both central and regional/local authorities,
2. Journalists, both from central and local media,
3. Businessmen, mainly industrialists; they are the main object of my interests (see further),
4. Teachers and other workers in the education system,
5. Youth, both pupils and students,
6. Local communities.

Reaching target groups is the key task of public relations. Known in marketing, a concept of **market segmentation** is extremely useful here. The segmentation allows us to identify segments of a given market and then to choose, from among them, one or more target markets (see e.g., Kotler, 1991; Schoell and Guiltinan, 1995).

In the case of Poland, these target audiences for science ought to be divided into two groups:

- a) first three segments which should be reached in the short term, i.e. primarily, and
- b) the other segments which should be reached in the long term, as a long-run activity.

Each of the audiences requires various ways to communicate with. The methods must be adjusted to their information needs, which ought to be well recognized before. Let's notice that politicians (group 1), journalists (group 2), representatives of businessmen associations (within group 3) and teachers (within group 4) are opinion leaders, very important for creating publicity and reputation of the science sector. Thus, they require an additional attention within PR actions.

Public relations for science-industry relations

According to the previous statement, further I shall deal only with the business sector (shortly: industry) as a receiver/audience of PR messages being sent by science as a sender/communicator. The special treatment of the business sector within PR activities result from a poor state of science-industry linkages in the field of technological innovation in Poland. The main symptoms of this state of affairs are (Jasinski, 2000):

- small number of R&D consortia with the contribution of manufacturing firms,
- small scale of technology transfer between research institutes and industrial companies, and
- small number of bridging institutions acting on the edge of science with industry.

The fault lies on both sides. One of the reasons, as already mentioned, is a weak experience of research organizations in marketing. **The Polish science needs a good marketing** - not only in the country but also abroad, in the European research market (within the process of integrating Poland with the European Union). Let's notice that marketing of science belongs to institutional marketing or, as it has been recently named, to B2B Marketing. This sort of marketing has its own specificity and is addressed not to consumers but to institutions, firms and other organizations. In our case – to industry. Therefore, institutional-marketing experiences can be useful here (see e.g., Morris, 1992; Haas, 1995).

One must remember that the scientific organization's complex marketing approach should contain all **four Ps**. In this field, we should speak about **the market offer of science**, containing a scientific product (service), properly priced and distributed, and skillfully promoted. Here the stress will be obviously put on promotion/communication being an element of marketing-mix, and precisely, on public relations as a marketing-communication instrument. It means that the other promotional tools like, e.g., advertising, will be omitted, although is highly important in marketing of scientific research.

For the purpose of using PR, it is necessary to answer two questions:

1. What does science offer industry? and
2. What does science expect from industry?

The science sector offers industry:

- results of the R&D work in a form of new scientific-technical achievements, being spread via distribution channels. This activity has also commercial aspects, and
- information on itself and on its products via communication channels. Here is a place for public relations within the dialog with industry.

In turn, one may expect the following industry's reactions to PR actions undertaken by the science sector:

- sponsoring of scientific conferences, fairs and exhibitions of its achievements, and similar events,
- donations for research projects and education in universities and other HEIs,
- orders/contracts for the R&D work,
- purchase of scientific books, professional journals and other publications.

In result, science in Poland can gain more finance for research and development, and so there will be a wider science offer and commercialization.

A message addressed by science to industry within its PR activities should contain the following watchwords:

- (1) Science is interesting, important and useful for the modern industry,
- (2) In the knowledge-based society, the firm's development must be based on knowledge which is offered by science,
- (3) Entrepreneurs can highly benefit on the application of the R&D results.

And a final issue: How to reach with this message to those recipients who need it? Also here a marketing philosophy may be helpful. I mean that the adoption of selected market-research methods can be useful to identify potential receivers and their information needs.

As seen, we can here speak about a full usefulness of the AMT approach and *instrumentarium* of public relations, especially of: (a) publications, (b) press conferences and (3) fairs and exhibitions. First of all, I'd like to stress an enormous potential role of mass-media, hitherto underestimated by Polish scientists.

This general outline, of course, needs to be theoretically deepened and further developed in practice.

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