MARKETING COMMUNICATIONS AS A FACTOR OF THE MODERN UNIVERSITY SCIENTIFIC AND INNOVATIVE POTENTIAL FORMATION AND DEVELOPMENT

Denis Ushakov¹ and Bavornluck Kuosuwan²

Abstract

The paper assesses the main problems of marketing communications used in the field of universities' scientific and innovative activities; characterizes the main products and results of various stages of scientific and innovative activities. Based on the analysis of the correlation between consumers and the modern structure of the innovative product of a higher educational institution, a model of marketing communications that can be implemented in a university in order to increase and develop its scientific and innovative potential is proposed.

Keywords: Marketing Communications, Scientific and Innovative Activity, University, Scientific and Innovative product

Introduction

A feature of marketing and communication in the scientific and innovative sphere of higher education is the growing trend of material and intellectual resources concentration for new knowledge and innovative products creation in large universities. With the background of a significant increase of competition in the educational services market, the dominant motives for investing in scientific and innovative activities of universities are such criteria as high economic returns and commercial potential of the ongoing research results.

High requirements for budgetary investments in universities a unfolds a sharp competition in activities related to fundamental research implementation, promising innovations developments, highly qualified personnel training, etc.

To become a launching pad for the development of innovative activity in a competitive environment the university's efforts must comply with two axioms: - High quality and demand for scientific services determine the competitive advantages of universities in the struggle for available resources;

- The ability to establish partnerships and enter into alliances with participants in the production of scientific knowledge and its consumers increases the attractiveness and capabilities of the university.

Obviously, the implementation of these ideas is in the area of responsibility of marketing communications-a prior tool for modern management and an additional factor to increase competitiveness.

The purpose of the study: based on the definition of the scientific and innovative products types, as well as their-consumers and existing problems in organizing communications analysis, to determine the principles for building a university system of marketing communications in order to popularize and promote the results of its scientific and innovative activities.

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¹ College of Hospitality Management Suan Sunandha Rajabhat University. E-mail: denis.se@ssru.ac.th

² Aviation Business Management Program, Faculty Management Science, Panyapiwat Institute of Management. E-mail:bavornluckkuo@pim.ac.th

Literature Review

Despite the rapid development of the theoretical and applied aspects of marketing communications implemented in various fields of activity, the expansion of their diversity and functional boundaries, the problems of forming an integrated system of marketing communications in relation to the scientific and innovative field of activity of higher educationdid not find sufficient reflection in scientific and methodological literature.

In particular, the mechanisms of interaction of communication flows that arise in separate links of the scientific and innovative chain, and effective channels for their distribution in the competitive environment, have not been sufficiently studied.

Among the main problems of marketing communications use some authors (Bruhn & Ahlers, 2013; Piuaru & Tescașiu, 2022; Pfeffermann & Hülsmann, 2011) highlight the following:

- Discontinuity of scientific communications between universities;

- Weak communications between corporate investors and innovation infrastructures (including research centers), almost complete lack of innovation skills and understanding of investors' tasks among scientists;

- A critical gap in the skills and scale of science and innovation marketing from the world leaders.

In our opinion, these problems are exacerbated by a number of additional circumstances that characterize the internal space of universities:

- Scientific and pedagogical community underestimation of the importance of modern marketing communications in positioning the competitive advantages of the university's scientific and innovative activities; local initiatives to use information channels for the dissemination of potential "investmentintensive" information;

- The unwillingness of a significant part of the universities scientific and pedagogical

staff to make additional efforts to popularize and promote their own scientific ideas and developments;

- Vagueness of the marketing functional load among various non-core structural divisions of universities, as well as the lack of a wellfunctioning system of interaction between structural divisions of universities engaged in scientific and innovative activities;

- Lack of qualified marketers in this area.

As a result, a significant part of the potential and innovatively capacious information about the individual stages and results of research work, as well as about the promising ideas of scientists, remains unclaimed and settles within scientific laboratories and university departments.

Analysis of the content and essence of the marketing communications concept indicates the structural heterogeneity and blurring of its functional boundaries.

Some authors associate marketing communications with tools, techniques, technologies, and mechanisms that ensure the formation and transmission of market entities' signals and messages about ideas, goods, or services promoted by them to target audiences (Goslar, 2016; Oancea & Brînzea, 2010; Duajan, 2013).

From the standpoints of other authors (Ellwood & Shekar, 2008; Dumitrescu, 2008), marketing communications are considered as actions to search, analyze, generate, and disseminate information; the processes of goods, resources, financial resources, information flows movement within the internal environment of the enterprise and outside.

Kolodziejczyk (2015) defined marketing communications as a concept of planning, a single strategy for the implementation of all forms of marketing communications necessary to maintain a single positioning of the organization.

Ensuring information exchange with the sales market, which is based on a set of signals emanating from the company to various audiences (including customers, distributors, suppliers, shareholders, management bodies, as well as its own personnel) and allows the company to adapt to changing market conditions and achieve goals, characterizes the essence of the information approach to the definition of marketing communications (Březinová, 2008).

The organization's choice of one or another approach to the marketing communications implementation is determined by the specifics of its activities, which include such key characteristics as:

- Corporate goals and specific strategic objectives of the organization in certain market segments;

- The object of influence of marketing communications (a set of goods, information, resources, finished products, finances, tariffs, payments, promotion methods, and technologies);

- Subjects of marketing relations (producers and consumers of goods, resources, information).

The strategic tasks of most universities in the field of scientific and innovative activities include the implementation of fundamental and applied scientific research, the use of the latest scientific achievements and technologies in education, the development of scienceintensive projects in the interests of economic development, improving the level of students and highly qualified scientific and pedagogical workers professional training.

Obviously, under these conditions, the emphasis is shifting from the finished product (as a traditional object of marketing communications) towards the resource components of its provision (personnel, new knowledge, infrastructure facilities, etc.).

Scientists or the university itself (as producers of goods, resources, and information) and state and public organizations, business structures, as well as individuals (as consumers of goods, resources, and information) can be the subjects of marketing relations in the field of scientific and innovative activities of universities.

In the context of the predominantly non-commercial functioning of universities,

as well as the specifics of their scientific and innovative activities, marketing communications acquire a different value meaning than traditional ones associated with sales and profits.

For example, it is almost impossible to bring marketing mechanisms in their traditional sense under the results of fundamental research, which is non-commercial by their nature.

Back in 1969, well-known marketers Kotler and Levy (1969) noted the inevitability of the transformation of traditional marketing principles into the marketing of organizations, individuals, and ideas.

Along with the performance of operational functions, some of the marketing tools can be aimed at the implementation of various strategic projects and the overall increase in performance and cannot be directly tied to the sales of a particular product.

The distinctive advantages of any organization can be found in areas of its activity.

According to Webster (2005), they can be:

- A sufficient level of scientific knowledge in the field of research and development, which allows for finding effective solutions to customer problems;

- Access to strategically important raw materials and components;

- Patents and related technical expertise;

- Special production capabilities in terms of equipment or processes that improve product quality and reduce production costs;

- Fixed installations, locations, and technologies that reduce costs and obtain unique product characteristics;

- Distribution system that provides access to specific customer markets that are hard to reach for competitors.

In the field of scientific and innovative activity, marketing communications includes not only the tasks of new products (or services) promoting, but also the technologies and methods themselves (selling licenses for inventions and know-how) embedded in a new product or technological process, and as well as equipment for its manufacture. New technologies promotion can be implemented through:

- Business trips of workers-carriers of the relevant know-how;

- Execution using the existing scientific and technical backlog of orders for contract research and development;

- Provision of engineering and consulting services;

- Sale of educational services, which involves training the personnel (Civelek et al., 2021).

Thus, the specificity of universities' scientific and innovative activities is characterized by the heterogeneity and multichannel nature of subject-object relations, mainly the non-commercial component of its results, and the predominance of non-commodity (in the material sense) communication flows.

Conclusion

Marketing communications in the field of universities' scientific and innovative activities can be defined as a continuous and directed process of searching, analyzing, generating, and promoting investment-intensive information flows that are heterogeneous in content, arising at different stages of creating a new product and significant for the subjects of marketing relations.

In this regard, the functionality of marketing communications in the field of scientific and innovative activities involves focusing not only on commercial goals achieving but also on creating a positive image of the university, on increasing the loyalty and trust of relevant services consumers to the "scientific brand" of universities, on creating a positive public opinion.

In the classical literature devoted to the study of marketing communications, four main types are distinguished: advertising, sales promotion, personal selling, and publicity (public relations) (Pras et al., 1994).

Modern researchers include six main components in the marketing communication complex or marketing mix, such as advertising, incentive system, public relations, interactive marketing, exhibition marketing, and telemarketing (Luminita, 2009; Paliwoda et al., 2012; Zbuchea & Mocanu, 2015).

Studies of various aspects of the marketing communications implementation are for the foreseeable future a priority for various sectors of the economy and, first of all, this applies to the field of scientific and innovative activities, increasing the investment attractiveness of its components.

The full cycle of scientific and innovative activities of higher education includes the following stages:

- Production of new scientific knowledge;

- Research and development implementation;

- Creation of new products or processes prototypes;

- Transfer of the results of scientific and innovative activities to the relevant sectors of the economy;

- Innovations commercialization results.

The general communication potential of the sphere of scientific and innovative activity of universities is determined by the following factors:

1. Different target orientations and structural diversity of communication flow that arise in separate links of the scientificand innovative chain-from the generation of an idea to its implementation on the market (knowledge production-distribution-commercialization).

2. Heterogeneity of objects of marketing communications influence. According to some experts, the products of scientific and innovative activity should include any of its results that have undeniable novelty, regardless of the presence or absence of such features as:

- The possibility of technological use at the existing level of development of productive forces;

- Completeness of the scientific and innovative process implementation; the possibility of valuation and commercial implementation;

- A material form of expression (Varadarajan et al., 2022). Table 1 specifies the content of the proposed types of products in relation to the

individual stages of scientific and innovative activities of the university.

Table 1 The Main Types of The University Scientific and Innovative Products (Compiled by	
Co-Authors)	

Stage of scientific innovation activities	Information and analytical product	Scientific, scientific methodological product	Human- itarian product	Technical and technological solutions	Infrastructure required
Ideas generation	Database, catalogues, proposals	Scientific Publications	Scientists, scientific	Know-how	Research institutes, scientific and educational centers, departments, laboratories
R&D	Database, catalogues, agreements, support systems, reports	Scientific publications, dissertations, abstracts	schools, students	Applications for patents, certificates, prototypes	Research institutes, scientific and educational centers, laboratories, Techno - parks
Transfer of knowledge and technology	Database, catalog, booklets, media publications, exhibition exposure, statistical handbooks	Scientific and methodological publications, educational manuals, recommen- dations, open lectures	Scientists, scientific schools, faculty	Description of patented samples	Exhibition center, creative workshops, the center of technology transfer
Commercialization	Database, catalog, booklets, media publications, exhibition exposure, reference books	Educational services, software products	Specialists	Patents, certificates, goods	Small businesses incubators, community centers

3. The heterogeneous composition of the subjects of marketing relations (producers and consumers of information, resources, and products).

There are three main groups of consumers of scientific and innovative activities:

- The state, acting as the main corporate customer, provides targeted funding for specific areas of scientific activity, as well as by distributing funds by the program-target method on a competitive basis; - Corporate consumers (enterprises, organizations interested in acquiring innovative products, technologies, in advanced training and retraining of their employees), directly paying for educational services, as well as services of centers for collective use, providing equipment on a reimbursable basis;

- Individual consumers who pay for the purchase of innovative products, educational services, and services of centers for collective use.

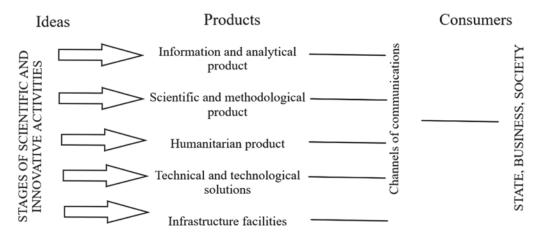


Figure 1 Model of Marketing Communications in the Field of Scientific and Innovative Activities of the University (Compiled by Co-Authors)

Thus, the effectiveness of the implementation of the university's scientific and innovative policy will largely be determined by the presence of a developed infrastructure of marketing communications, which provides a directed process of interaction between potential consumers (investors, clients) with various types of scientific and innovative products.

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