Synergetic Basis of Innovation Marketing

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Abstract. Issues of synergetic effects of innovation marketing are considered in the article. It shows sources of synergetic effects of innovation marketing, types of synergism, synergetic effects of marketing innovations, as well as evaluation methods.

Keywords: innovation, marketing, synergetic effects, synergy.

I. INTRODUCTION

Economic development is impossible without a modern system of innovative marketing decisions. Competitiveness of economic agents depends on a selected strategy of economic development. A successfully formed system of innovative marketing measures provides the survival of enterprises under the difficult global competition.

The primary objective of innovative marketing is the market advancement strategy development. Strategic marketing research analyses market state, development of market segments, organization and formation of demand, design of consumer behaviour. Synergetic basis of innovation marketing is not properly analysed by the researchers.

The issues of innovation marketing are lighted up in foreign and national scientific literature. Theoretical issues of interdependence of market economy and innovations development were investigated by such scientists as S.V. Valdaitsev, S.Yu. Glazjev, B. Loondval, B.Santo, B.Twiss etc. Innovation theory of marketing strategy was broadly studied by V.P. Baranchev, I.Ansoff, O. Vinigradov, and other scientists.

The problem of innovation marketing is extremely important for successful marketing strategy of economic agents. Synergetic bases of innovation marketing give a new sight at synergetic effects of innovation marketing under conditions of integration processes. It can become the basis of economic systems efficiency increase. Consequently, it will provide the increase of competitiveness of both separate economic agents and economic system as a whole.

II. TYPES OF SYNERGISM

Synergism or synergetism is the display of co-operative behaviour of natural material essences. As a result, they unite into a system. In particular, elementary particles unite into atoms, atoms – into molecules, molecules – into cells, cells – into organisms, organisms – into ecosystems or social networks. It is a well grounded stance that the ability of synergetism is a fundamental property of nature and it is inherent to every material essence [13]. Dialectical unity of two natural processes of differentiation (division, difference) and integration (combination) is the key in the implementation of this phenomenon. The consequence of synergetic phenomenon is the structure of the existent world, in which any natural material essence is a separate unit and at the same time is part (constituent part) of other units of a higher level [16].

The basic essence of synergetic phenomenon is the cooperation of separate parts of the system. As a result, they start acting as a single unit. For this purpose it is necessary that separate particles of a system react to changes in the external environment, and separate particles demonstrate coherent actions, as if "exchange" information to synchronized changes [10, p. 260].

In the work [14, p. 94], the concept of "synergy" is interpreted as a united (common) action of two or a few elements of a system in the same direction.

Synergetic principles deserve special attention within the framework of synergetic approach. Budanov V. [4] distinguishes seven basic conditions for synergism: (1) homeostasis; (2) hierarchy structure; (3) non-linearity; (4) openness; (5) instability; (6) dynamic hierarchy; (7) observances.

Ansoff I. paid a considerable attention to practical use of synergetic approach for optimisation of economic systems [9, p. 39-40]. In particular, he studied the question of accounting synergetic effects for grounding the strategic development of companies. Research of economic synergism was conducted by M. Porter, who studied creation of value chains of different companies (enterprises), as well as common activity and their potential cooperation, which can be used for creation of competitive advantage [12, p. 14].

The analysis of the above-mentioned studies on economic synergism enabled the authors of the article to define and analyse the basic kinds of synergism: interpersonality synergism, administrative, investment, financial, operating, trade synergism, synergism of man and computer, synergism of complex processing of natural resources, innovative and corporate synergism.

Interpersonality Synergism. It is possible to talk about the origin of such synergism, when two or more people with different skills co-operate. As a rule, in business, it is a collaboration of people with organizational and technical skills. The principal reason of collaboration is the achievement of synergetic effect. It can be, in the opinion of the authors of the article, only under condition of the directed and co-operative actions of all participants of the process, who have a general goal and actively work in this direction. On the other hand, a tendency to specialization allows forming groups with a high level of synergism, to create a powerful group of specialists with various capabilities and experience.

Administrative Synergism. This type of synergism determines a general positive effect. It deals with the known management problems of a company that entered a new industry. Baltin V. [3] distinguishes two types of synergy: system synergism and synergism from competence transfer. The former is achieved under condition of centralization of
separate business processes, and also by integration of enterprises in the "value creation chain". Trade networks can be the example of business process centralization. Shops have a centralized system of commodity purchasing and united logistic services in one trade network. As a result, the scale effect is consequently achieved and is impossible to be obtained in a decentralized purchasing system. In comparison with the synergy effect from centralization of business processes, in case of enterprise integration in the value creation chain the synergy effect will be less considerable. The latter is achieved by the use of a certain unique competence by the purchased business-units and can provide company competitiveness exactly due to transfer of administrative "know-how", introduction of the system increasing management efficiency.

*Investment Synergism* is possible as a result of common use of fixed assets, common supplies of raw materials, and use of common capital productive assets.

*Financial Synergism* may arise under condition of tax cuts and diversification. For companies that provide financial services, for example, providing clients with a wide set of financial goods and services (credit cards, account opening, mortgages, personal loans, mediation, investments, creation of "development budget") financial synergism is necessary for a constructive change of economic position of firm participants. It is possible to distinguish such basic advantages of financial synergism as:

- decrease in financial risks due to goods and territorial diversification; decrease in tax loading provides the creation of united budget, necessary for ecologically oriented development of enterprise; diversification of client segments assists the improvement of obligation coverage; decrease in instability of money flows provides the increase in solvency and facilitates access to financial capital; decline of business risk assists creation or expansion of internal capital market.

*Operation Synergism* appears when production capacities and personnel are used more effectively, overhead costs are distributed, and purchasing of large lots of goods provides advantages. Operation synergy is related to operating activity of incorporated firms and includes scale effects, price increase and higher increase rates. Ivashkovskaya N. grounds that such basic advantages of operation synergism are determined by [6]: economies of scale, which enable promotion of productivity due to specialization, permanent costs decrease due to redistribution, increase in the degree of asset use; economy on flexibility is provided by flexibility of commodity turnover, demand (including ecological); research of market segments, administrative team and control; possibility of economic growth is provided by market expansion speed, conquest of new market segments, reaction on bringing in new innovative technologies, speed of creation of new goods and increase in the value of the company.

*Trade Synergism*. With the aim of sales optimisation, firms use common channels of distribution of goods, which are kept in one storage. It can also deal with an external incentive for separate enterprise activities for the sake of sustainable development, which will lead to forming new types of goods, for example ecological, and their realization with the aim of satisfaction of consumers’ preferences. Ecological goods and services must become major requirements for the society. For this purpose, the synchronized action is needed in the field of favourable tax system creation, encouraging crediting, favourable pricing, public policy forming, assistance of mass media, state support of ecologically friendly goods and services market. In relation to the complex of marketing communications, synergism means the effect of co-operation of different communication instruments, which arise due to their common use. Communication instruments may strengthen each other, creating a synergistic effect [1].

Roson R. [18] thinks that it is possible to consider marketing synergism as the variety of trade synergism. Synergetic effect in a marketing system is the result of orientation of all subjects of marketing system in the process of their co-operation for consumer needs. The proper level of planning, co-ordination and organization of co-operation process can be provided due to common economic activity and co-operation of economic agents. Communication policy of an enterprise which is based on certain principles is in the centre of attention. The mentioned author proves the necessity of understanding of which effects must determine the communication policy of a company.

Among four basic constituents of communication policy, awareness about brand, attitude toward brand, intention to buy and assistance for purchase must be highlighted. Introduction of innovation marketing makes sense when the enterprise gets a synergistic (system) effect, which is considerably higher than the effect before introduction of innovative marketing decisions. Directions of innovative development can, for example, relate to expansion of market segments, introduction of new methods of goods use, entering new markets (raw material, sales and other markets); development and realization of new goods and services; diversification of production and sale [7]. It is possible to expect the display of synergetic effects in two different directions: 1) synergetic effects, which show up within the limits of one enterprise due to a systemic use of different marketing instruments; 2) synergetic effects, which show up from the systemic activity of separate enterprises, which unite for achievement of certain economic goals. It is possible to achieve a positive synergetic effect of the first type, namely from systemic application of marketing innovations, in cases of sales activity optimisation, marketing planning optimisation, marketing research optimisation, optimisation of advancement of commodities to the consumers, use of informative marketing system optimisation, advertising optimisation.

*Synergism of Man and Computer* is a combination of human skills, capabilities and computer technical characteristics. Computers are extraordinary in combination with professional skills of people, who work with such a technique. Enormous information content can be worked out only when personnel are involved. It is a combination of a computer and man and is another type of synergism.

*Synergism of the Complex Processing of Natural Resources* is especially important in connection with problems of
economic synergism in the context of sustainable development. For every enterprise, the idea of sustainable development maintenance must be not only the priority, but also an advantage that businessmen understand and use synergism as a strategy, which will provide companies with lifelong economic development.

Synergism of goods production is a kind of synergism between enterprises of different industries, which results in transformation of by-product and resource waste, which is efficiently used. Thus, there is an observance of sustainable development principle. The basic idea here lies in one hundred per-cent use of resources, zero-emission production, and eco-efficient production. The basic principle of by-product synergism is the following: waste of certain product can be used as an input resource for another production. This principle must diminish harmful emissions in the atmosphere and aquatic sources, prevent excessive waste formation and also will allow reducing the operating costs of enterprises. As a result, there is a possibility to get a synergetic effect from similar industrial symbiosis of production.

By-product synergism enables companies to decrease current expenses on materials, energy, and transportation; to enter new markets and work out new types of products; to decrease expenses on utilization of by-products; to extend collaboration and partner relations.

Information-Innovative Synergism. Its basis is information assets, which in combination with other productive factors give the complex of advantages. Integration of unique information technologies and food products into a productive environment enables economic agents to use natural resources effectively and rationally and adhere to ecological equilibrium.

Synergism based on information assets allows creating a competitive advantage [9, p. 73]. Therefore, for every company a priority task is the creation of invisible assets, which would allow sustainable economic success in the long-term perspective. This is especially important for goods, which are especially dangerous from the point of view of contamination of the environment.

Basic advantages of this type of synergism, which can promote company efficiency, can be the following: protective, investment, competition, expansive and ecological advantages. Basic advantages of information-innovative synergism can be formulated in the following way: investment advantages appear due to possibility of free money investment in profitable business; competitive advantage appears due to a more complete risk control (price, currency and other risk control), possibilities of diversification increase, use of experience of other productive spheres, being inaccessible to competitors; expansive advantages appear due to increase in possibilities of company expansion to other markets, including expansion through foreign markets; ecological advantages arise due to combination of unique new technologies, new technological developments in the field of raw material extraction, use and reproduction of natural resources.

Corporate Synergism. Curien N. distinguishes the following constituents of corporate synergism [17]: financial, client, intersystem and educational. According to the scientist [17], the essence of financial constituent consists of the optimisation of distribution of capital, balanced growth and risks. Under a client constituent, the above-mentioned author understands the development of cross sale, search of common clients. An intersystem constituent means the common process of optimisation and scale economy. Development of key competences and best experience exchange means an educational constituent. For some companies, which provide financial services, creation of synergism, for example, means providing clients with a wide set of financial goods and services (credit cards, checking account opening, mortgages, personal loans, mediation, investments, etc.).

The mentioned types of synergism are synergism phenomenon, which takes place in economic systems or in the process of co-operation of separate subsystems of the economic system. In the opinion of the authors of the article, the mentioned types of synergy must be completed by two types: 1) synergism, which appears as a result of co-operation inside separate subsystems within the limits of ecological system; 2) separate economic and ecological subsystems within the limits of ecological and economic system. The latter can be named ecological and economic synergism and may refer to ecological and economic synergism.

III. CONCEPT OF STRATEGIC INNOVATION MARKETING

The most widespread forms of innovative marketing are [8]: invention patents; patent licensing; unlicensed invention trading; technical documentation transfer; "know-how" transfer; technological knowledge transfer, which is needed for acquisition or equipment and machine leasing; informative exchange during personal meeting; engineering; implementation of general research and development; organization of joint production and ventures. In industrially developed countries, the marketing firm development conception occupies an honoured place for more than decades [5].

Conception of innovation marketing is the basis for market research and search for the competitive strategy of an enterprise. The complex of innovative marketing is represented in Figure 1.
As Figure 1 shows, strategic and operative components are the most important types of innovative marketing.

Strategic innovative marketing is determined by market segmentation, positioning of goods and services. The key moment of marketing strategy is research and prognostication of demand for new goods based on a thorough study of consumer perception of innovation.

The primary task of division of marketing at the initial stage of innovative strategy is market research. As a rule, at the initial stage of such research, the general economic analysis is conducted. This type of analysis is closely related to the study of "external environment" of an enterprise (e.g. population, growth rates, profit per capita and consumption, cost-of-living-index, "consumer basket", inflation and other rates) and it allows investigating macroeconomic factors, which relate to the demand for innovations. In addition, this type of analysis includes the study of legal terms, practice of legislation, related to import and export of similar products, quota, limitations on standards, taxes, subsidies etc. Thus, it is necessary to analyse the existing level of national production of similar goods, presence or possibility of import, existent level of export, data about the production of national goods and innovation [5, p.117-119; 2].

As the basic information for implementation of general economic research, official statistical information and the data of state bodies, governmental sources are used, as well as the data of international organizations, embassies, banks, industrial catalogues, researches, norms and instructions, specialized reference books or business magazines and newspapers, trade associations, chambers of commerce, etc.

Let us analyse further steps of strategic marketing.

*Demand Analysis*. As a result of demand analysis, an enterprise with an innovative marketing strategy must answer the question: "Who are our new product customers?" In most cases, during the demand analysis a segmentation method is used: distribution of market into specific customer groups (market segments), which can require different goods and to which it is necessary to add different efforts. During segmentation, an enterprise must exactly define what it is exactly necessary to analyse. A selected segment (target market of these products) is a basic working unit for marketing department of an enterprise.

*Attractiveness*. The next step of market strategy development is the determination of attractiveness degree of different market segments and choice of one or a few segments (target markets) for studying. For attractiveness assessment, different marketing instruments are used. Thus, it is necessary to take into account a segment size (market), its change tendency (decrease or growth), and also aims and resources of company, which studies a market segment. Methods of attractiveness analysis are based on the demand and market segment potential study. Innovative product life cycle is also analysed.

*Competitiveness* refers to the estimation of the ability of small and medium-sized enterprises to compete at the market of these products. During estimation, competitive advantages are determined. This type of analysis is closely related to methodology of the previous positioning of every product type, which is included in a "portfolio", offered to a target consumer group. Positioning of innovative product determines its location in a group of products, which are already presented at the market. The aim of positioning is the strengthening of innovations at the market. Different analytical approaches based on supply study are used.

**Choice of "Product-Portfolio.** "Portfolio" analysis is an instrument, by means of which the organization managers expose and estimate different directions of economic activity with the aim of resource investment in most profitable directions of activity and narrowing the weakest directions of activity. As a result of careful analysis, the relative market strategy is chosen. A firm starts to produce goods that represent the highest degree of attractiveness for consumers, and are highly competitive.

**Choice of Innovative Development Strategy.** Development strategy is the main direction of marketing activity, by using which an organization aims to attain selected goals. On the selected target markets, different types of innovative strategies can be used.

**IV. SYNERGETIC EFFECTS OF INNOVATION MARKETING**

Introduction of innovation marketing makes sense when the synergetic effect is considerably higher than that the economic subjects had before introduction of innovative marketing decisions. They can, for example, deal with the expansion of market segments, introduction of new methods of goods use, entering new markets (raw material markets, sale markets, etc.); development and realization of new goods and services; diversification of production and sale [7]. One can expect synergetic effects to occur in two directions. (1) synergetic effects that occur within a single company as a result of the regular use of various marketing tools, (2) synergetic effects that occur as a result of the systemic activity of separate companies that merged to achieve certain economic goals.

It is possible to achieve a positive synergetic effect of the first type, namely from the systemic application of marketing innovations in the cases of sales activity optimisation, marketing planning optimisation, marketing research optimisation, advancement of goods to consumer optimisation, use of informative marketing system optimisation and advertising optimisation.

As a result, a synergetic effect of innovation marketing can appear. It is expressed in the effect of complex application of innovative marketing decisions and it differs from the simple addition of effects of every separate measure:

\[ E_i \geq E_1 + E_2 + E_3 + E_4 + E_5 \]

(1)

where \( E_i \) is an effect of integrated innovation marketing; \( E_1 \) – the sales optimisation; \( E_2 \) – the marketing research optimisation; \( E_3 \) – the optimisation of logistic processes; \( E_4 \) - the optimisation of the use of informative marketing systems; \( E_5 \) - advertising optimisation.

The effects were obtained on the example of marketing activities of seven enterprises of Suny Region. Evaluations were obtained by the expert method. Marketing experts took part in the evaluation. Table 1 demonstrates the expert evaluation of effect of integrated innovation marketing.
TABLE 1
EFFECT OF INTEGRATED INNOVATION MARKETING BEFORE AND AFTER OPTIMISATION

<table>
<thead>
<tr>
<th>Index</th>
<th>Before optimisation, %</th>
<th>After optimisation, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>$E_1$ – the sales optimisation</td>
<td>100</td>
<td>105</td>
</tr>
<tr>
<td>$E_2$ – the marketing research optimisation</td>
<td>100</td>
<td>102</td>
</tr>
<tr>
<td>$E_3$ – the optimisation of logistic processes</td>
<td>100</td>
<td>102</td>
</tr>
<tr>
<td>$E_4$ – the optimisation of the use of informative marketing systems</td>
<td>100</td>
<td>101</td>
</tr>
<tr>
<td>$E_5$ – the advertising optimisation</td>
<td>100</td>
<td>102</td>
</tr>
<tr>
<td>$E_i$ – the effect of integrated innovation marketing</td>
<td>100</td>
<td>115</td>
</tr>
</tbody>
</table>

Application of the mentioned approach is especially important for advancement of ecological goods and services in the market (Table 2) [11].

TABLE 2
CLASSIFICATION OF ECOLOGICAL GOODS DEPENDING ON THEIR FUNCTIONS

<table>
<thead>
<tr>
<th>Function</th>
<th>Characteristic goods</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2.</td>
</tr>
<tr>
<td>Administrative</td>
<td>Social system management technologies</td>
</tr>
<tr>
<td>Scientific</td>
<td>Know-how, scientific documents, database, construction and technological documents</td>
</tr>
<tr>
<td>Industrial</td>
<td>Nature saving equipment (equipment for land recultivation etc.), monitoring systems, equipment for waste management</td>
</tr>
<tr>
<td>Utilization</td>
<td>Services for ecological goods use</td>
</tr>
<tr>
<td>Organization and management</td>
<td>Services for introduction of ecological goods on markets, management technologies</td>
</tr>
<tr>
<td>Service and trade</td>
<td>Trade services for ecological goods (including different kinds of tourism)</td>
</tr>
<tr>
<td>Education and upbringing</td>
<td>Educational materials (textbooks, manuals, etc.). Educational technologies (methods for conduction training programmes)</td>
</tr>
<tr>
<td>Nature management</td>
<td>Technologies for controlling natural systems and their reproduction</td>
</tr>
<tr>
<td>Urban</td>
<td>Technologies for formation and reproduction urban landscapes</td>
</tr>
<tr>
<td>Culture and arts</td>
<td>Cultural goods and services</td>
</tr>
<tr>
<td>Information</td>
<td>Services for collecting ecological information</td>
</tr>
<tr>
<td>Financial and economic</td>
<td>Control of monetary flows, most efficient use of resources in the ecological sphere</td>
</tr>
<tr>
<td>Auditing</td>
<td>Eco-audit consultation services</td>
</tr>
<tr>
<td>Social and psychological</td>
<td>Impact technologies on social systems for the sake of society and economy ecologisation</td>
</tr>
<tr>
<td>Health protection</td>
<td>Services for health protection</td>
</tr>
</tbody>
</table>

Synergetic effects of marketing innovations, which appear from the common activity of separate enterprises, can be implemented due to basic groups of factors: efficient use of marketing; costs minimization; increase in the value of the company; innovation approach to forming a marketing policy; increase of competitive advantage (Fig. 2).

As a result of positive synergetic effects, the increase in investment attractiveness can be possible and it can provide capital flow increase, improvement of management and asset value increase [15].

V. CONCLUSIONS
Incorporation of synergetic basis for implementation of marketing instruments will allow increasing functioning efficiency of the economic system. High-quality marketing system of innovative measures and decisions under contemporary conditions of economic process integration provides synergetic effects, which predetermine the increase in efficiency of a separately taken enterprise, industry as a whole, and the whole economic system. Synergetic effects can possibly be expected in different directions: efficient use of marketing; minimization of costs; increase in a firm's value; innovation approach to forming a marketing policy; increase in competitive advantage.
REFERENCES


мазочких мероприятий обеспечивает выживание предприятия в жестких конкурентных условиях глобализации. В статье представлен анализ исследований по экономическому синергизму, что дает возможность определить и проанализировать основные его виды, к которым принадлежат межличностный, управленческий, инвестиционный, финансовый, операционный, торговый синергизм, синергизм человека и компьютера, синергизм комплексной переработки природных ресурсов, информационно-инновационный и корпоративный синергизм. Представлены также синергические эффекты маркетинговых инноваций, которые могут возникать от системной деятельности отдельных предприятий. Учет синергической основы при реализации комплекса маркетинговых инструментов позволит повысить эффективность функционирования экономической системы. В статье предлагаются направления, по которым можно ожидать проявления синергических эффектов: 1) синергические эффекты, которые проявляются в пределах одного предприятия от системного применения различных маркетинговых инструментов; 2) синергические эффекты, которые проявляются от системной деятельности отдельных предприятий, которые объединяются для достижения определенных хозяйственных целей. В исследовании предлагается расчет синергического эффекта от системного применения маркетинговых инноваций, что возможно в случаях оптимизации сбытовой деятельности, маркетингового планирования, маркетинговых исследований, оптимизации логистических процессов, оптимизации использования информационных маркетинговых систем, рекламы. Представлены также синергические эффекты маркетинговых инноваций от системной деятельности отдельных предприятий.