

Theoretical and Methodological Approaches and Stages of Formation Concept Geomarketing

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Abstract—The paper describes the development stages of classical marketing (market demand exceeds supply, improving the production process; formation of the concept of marketing and approaches to marketing activities, understanding marketing as an integral system, maintaining the concepts of "consumer marketing", "managerial marketing", "organization image"; system analysis of strategic marketing as a general management theory; developing branding and marketing culture; the use of modeling consumer behavior, market segmentation based on a marketing tool - geomarketing as a combination of the use of marketing, geographic and information technologies) in the framework of the modern period – a geomarketing tool as a combination of the triad "geographical - geoinformation - marketing" research. Foreign and domestic author's scientific positions, views in the field of geomarketing are systematized, which prevailing a geographical representation as visual, detailed maps with the results of marketing research. The areas of applied adaptation application of geographical results in analytical practice and managerial business decisions are generalized. The stages and geographical reach of geomarketing are analyzed from the position of the evolution theory of the classical marketing (Arising, formation, popularization, spread), the author's process of transforming the main characteristics of geomarketing is proposed, the dominant approaches are identified (managerial – information gathering; project and analytical – management and planning of trading network; geoinformational – optimal location search using the tools of geoinformation systems).

Keywords—*geomarketing, geoinformation technologies, marketing research, classic marketing, marketing maps, location, evolution*

I. INTRODUCTION

The origin of traditional marketing is related with the works of scientists of the classical and neoclassical economics theory of A. Smith, A. Marshall. The core of this theory is the understanding of value as a material category build up in the

production process, and in the future serves need gratification of the client / company. The evolution of marketing theory takes into account the following socio-economic processes:

- internationalization and globalization of the market;
- the appearance of new requirements, change in the pace and quality of life;
- development of extensive informatization and means of communication;
- development of modern educational technologies.

We will give a few explanations of the formation of the geomarketing tool in the development of the evolutionary theory of marketing. The following stages of classical marketing are distinguished:

- 1860-1950 XX century – market demand exceeds supply, improvement of the production process; ubiquitous concentration of production; the marketing function was used as a specific management problem;
- 1950-1980 XX century – the formation of the marketing concept and marketing activity approaches: functional, product, institutional; understanding marketing as an integrated system, introduction the concepts of "consumer marketing", "managerial marketing", "image of the organization"; the functional role of market segmentation based on a consumer behavior model;
- beginning of the XXI century – a systematic analysis of strategic marketing as a general theory of management; development of branding and marketing culture; the use of consumer behavior modeling;
- 2020s XXI century – the modern stage: market segmentation based on the marketing tool –

geomarketing as a combination of the use of marketing, geographical and information technologies.

II. METHODOLOGY

A new scientific direction – geomarketing has methodologically formed in foreign and domestic scientific knowledge, the purpose is a detailed examination of the territorial features of market formation, consolidating both marketing and geography tools. Initially it referred as a term of “market geography”, “geography of sales markets”, in European scientific terminology – “geomarketing” [3].

The genesis of geomarketing represented in the 1930s XX century in the United States in the context of the scientific works of Applebaum W. The role of the location factor in the study of the development of remote nodal points from the center under conditions of the retail trade sector of the economy was proved by the author in 1931 (studies were conducted in Cincinnati). Subsequently the author’s ideas were practically applied in choice substantiating of alternatives the most profitable placement of «The Kroger Co» supermarkets, thereby confirming the author’s theoretical hypothesis.

Commercial companies in this period most frequently used the capabilities of the consulting business and the scientific community to research and monitor business opportunities in expanding product sales markets [4]. In the United States, as well as in selected European countries, a group of specialists in the field of geography has been created, specializing in the use and generalization of marketing issues. Demand for a complex of marketing and geographical skills is growing in this period.

Applebaum W. identified the following problem set of geomarketing tasks [6]:

- synthesis of empirical data on sales markets and sales operations;
- assessment of markets, allocation of service and trade zones;
- selection of distribution channels and locations for wholesale, retail trade and enterprises for service to the public;
- mapping of the results and marketing cartography.

Generalizing the scientific views of James P. and Martin J. in the field of geomarketing research (the 1950s), the main ideas and states were point out:

- geographical research has grown significantly, as a rule, to analyze the activities of a commercial business [7];
- geographical studies of possible alternatives are dominated to expand the potential opportunities of additional markets of wide assortment line goods.

In the 1950s in the opinion of James P. and Martin J., geographic research to analyze the activities of commercial business prevailed. During this period the role of geographical studies of potential alternatives to create additional markets of wide range of products increased. Since detailed, visual maps are the result of geographical research, the skills of specialists in the field of geography have made a significant contribution to the study of the markets of a certain territory. The scientific

fact is documentarily approved in a special issue of the journal «Economic Geography» (1961). In 1952, the fundamental publication «American Geography: Current State and Prospects» was published, printed in the Russian translation in 1954 [8]. In the scientific work generalizes the attempt to systematize geographical work to show the main areas of applied application of geographical results in analytical practice and managerial decisions. Geomarketing (marketing geography, according to geographers) was noted among the priority areas, as well as its outline positions were formulated.

III. RESULTS AND DISCUSSION

Geomarketing was earmarked as a scientific field, primarily engaged in establishing the geographical boundaries of markets and determining their capacity, as well as those distribution channels through which goods move from producer to consumer.

The main conceptual and essential researches in the geomarketing field are shown in table 1 [9].

TABLE I. AUTHOR’S COPYRIGHT CHARACTERISTICS IN THE FIELD OF GEOMARKETING

Authors/professional affiliation	Geographical boundary	Key Points in the field of geomarketing
Applebaum W., Harris C. (geographer)	USA	Placement analysis of actual and potential companies
Flippono M. (geographer)	France	<ul style="list-style-type: none"> • typology of territories (commercial enterprises) • improvement distribution networks
Grimmean I.-P., Roelandts M. (geographer)	Belgium	
Afonso P., Gomes M., Abrantes M. (marketers)	Portugal	Author’s methodology of marketing cartography
Berezovich I. (marketer)	Russia	Formation of assortment policy and investigation of regional markets.
Golubkova E.P., Orlova G.M. (marketers)	Russia	Marketing communications and their role in regional markets
Pankrukhina A.P. (marketer)	Russia	Territorial Marketing Research
Balabanova G.V. (marketer)	Russia	Territorial segmentation of the food market
Golikova A.P., Chernomaz P.A. (marketer)	Russia	Spatial analysis of the world market sales market

Simultaneously with the geographical research, within the American school of regional economics, a similar kind of scientific pilot research was initiated, which aimed at:

1. Research and monitoring of the territorial markets of individual enterprises/groups of companies from the position of marketing conditions of the products sale;
2. Identification of perspective trends in products demand.

The foundations of this theory laid by Shaw A., Weld L., later were advanced in the works of Frederick J., Duncan S., Cherington P. These scientific ideas were transformed into the theory of market management by J. Howard and McCarthy E.,

the core condition of which is determination of the optimal choice of the enterprise location, thereby enables the minimization of transaction costs [10].

Replication of geographical technologies and methods in the early 1960s XX century to scale marketing problems has grown significantly, including elements of a modern mathematical apparatus. An increasing interest in the results of marketing research is most pronounced by business structures and entrepreneurs. Geographical disciplines, including geomarketing, are attracting attention of the representative of educational institutions; teaching is conducted in individual business schools that train professionals in the field of entrepreneurship and management. Geomarketing research paid special attention of large companies, in particular: General Foods, Western Electric, Dupont de Nemours, U.S. Steel and others. The industry specificity during this period is has distinguished by the following: banking sector – monitoring of regional investment policy depending on the explication of geographical and economic factors; transport sector – study of routes and locations of cargo traffic, adjustment of tourist guides; trade sector – choice verification of the most efficient trade point.

Scientific views in the field of geomarketing geographically expand beyond the scientific and geographical boundaries of the United States. According to Flippono M. the fundamental ideas of French geographers were actively used by the business environment for practical purposes, but geomarketing remained exclusively in the form of framework private research and had not formed as a separate scientific research area. In the second half of the 1970 XX century, attempts to theoretical research in the field of geomarketing were taken by the British Market Research Society in the UK.

According to Grimmean I.-P., Roelandts M. [12], the basis of geomarketing consists in combining geography methods with sale products thematics. This scientific direction is aimed at study of the regional and territorial products sales markets, including placement real and potentially perspective clients, distribution channels and analysis the competitive environment. The authors highlighted the tasks of geomarketing: the location of advertising, improving distribution channels, placing new objects. The result of the study is the systematization of regional markets typologies according to criteria groups, the design and verification of geomarketing maps. A trial typology of geomarketing maps was realized in 1979 by British Market Research Society. On its basis the entire territory of Great Britain is divided into 18 thousand districts and region according by 36 group criteria, including customer characteristics of consumers. The technique was called “Classification of residential areas” and then spread to the United States (1981), France (1984), Switzerland (1987), Belgium (1989), and was used in the practice of developing transnational companies.

Thus, the following stages should be marked out in the development of geomarketing:

- 1930s - early 1950 XX century – stage of arising: the formation of geomarketing ideas (mainly in the USA), the definition of the geomarketing concept and the range of issues that can be solved using its methods. The main focus of the study was the location analysis of real and potential mercantile establishment. The works of Applebaum W., Cohen S., Goodman V., Ristow V.U. belong to this period.
- 1950s - early 1970s XX century – the stage of formation: the use of geographical research and methods in marketing research, an increase of the combination of these methods, the use of the mathematical apparatus; educational technologies of the geomarketing art (academic discipline); teaching an educational course at special courses (at large mercantile establishment) and individual business schools.

If the demand for geomarketing research was formed mainly in the field of trade before, the social order has spread to transport, banking and production activities now. New aspects of research appeared – the study of sales zones, service areas, their configuration and size, as well as their mapping. This was reflected in the works of Christaller W. and Lesch A., Bracey P., Berry B.J. L., Harrison W., Haggett P. and others.

- Since early 1970s XX century – stage of popularization. The ideas of geomarketing began to develop in Europe, especially in the UK. Research on advertising, improving distribution networks and territory typologization for commercial needs deserved particular consideration, as well as using GIS technologies as a basis for geomarketing analysis.

Since the mid-1990s XX century in the CIS countries, especially in Russia and Ukraine, in studies of regional markets began to appear some aspects of geomarketing research. This type of research was initially sent at economic and geographical analysis of the territory, which further led to the formation of the territorial marketing concept, aimed at increasing the attractiveness of the territories in terms of investment activity. The key aspects are the purposeful formation, positive development and promotion of the determined territory image. Until recently, the concept of geomarketing was quite narrow; it meant a special tool in traditional (business) marketing, aimed at geographical segmentation (geosegmentation) of the market and geographical positioning (geo-positioning) of goods / services. In the mid-1990s the concept of “place marketing” (P. Kotler, D. Haider, I. Rein, 1994) was developed as a reaction to significant changes in company strategies and public policies caused by globalization and regionalization processes (these two processes are synergistic and interdependent). The generalized results of the stages of the geomarketing scientific direction development as a tool for the stages of classical marketing are presented in table 2.

TABLE II. COMPARISON AND STAGES OF DEVELOPMENT OF MARKETING AND GEOMARKETING AS A SCIENCE (COMPILED BY THE AUTHORS)

Years	The name of the marketing stage	The evolution of marketing theory	Main authors	Geomarketing Stage	Geographic boundaries of geomarketing	Key features of Geomarketing	Leading researchers
1930s - early 1950s XX century	«Integration»	<ul style="list-style-type: none"> functional marketing: production of goods, development of marketing institutions to ensure the goods delivery (set of activities) use of marketing tools to grow the manufacturing business 	Breyer, 1934; Duddy and Revzan, 1953; McGarry, 1950; Weld, 1917	«Arising»	USA	<ul style="list-style-type: none"> study of the concept and methods of geomarketing location analysis of the real and potential mercantile establishment the use of geomarketing tools mainly in the field of trade 	Applebaum W., Cohen S., Goodman V., Ristow V.U.
1950s - early 1970s XX century	«Reconceptualization»	<ul style="list-style-type: none"> managerial approach to marketing (the emergence of marketing management). Marketing as a business function the origination of quantitative research in marketing 	Alderson, 1957; Davis, 1961; Howard, 1957; Kotler, 1967; Levitt, 1960; McKitterick 1957; McCarthy, 1960	«Formation»	European countries (France), USA	<ul style="list-style-type: none"> a modern mathematical apparatus appeared new areas of research: the study of sales zones, service areas, their configuration and size, as well as their mapping. application in transport, banking and production activities 	Christaller W. and Lesch A., Bracey P., Berry B.J.L., Harrison W., Haggett P., Shaw A., Weld L., Howard J., McCarthy E., Göttmann A.
early 1970s XX century	«Socialization»	<ul style="list-style-type: none"> marketing management: business orientation on the consumer - value is determined in the market. The marketing function is the adoption of strategic and operational solution in the use of enterprise material resources by means the marketing complex (4P) expansion of the managerial approach: marketing as an element of the decision-making process 	Hofer and Schendel 1978; Bartels, 1976; PIMS; Houghton, 1989	«Popularization»	European countries, UK, USA	<ul style="list-style-type: none"> territory typologization in the view of consulting services implementation of geomarketing maps use of GIS technologies as a basis for geomarketing analysis advertising research tool, improving distribution networks 	Grimmean I.-P., Roelandts M.
the mid-1990s XX century	«Informational»	<ul style="list-style-type: none"> relationship marketing: the socio-economic process of need gratification on the base of competencies joint use of interacting market entities communicative (relational) approach in marketing and consumer involvement marketing in interaction. From product marketing to service marketing establishment and maintenance of long-term relationships with customers and partners, as well as internal marketing activities aimed at employees of organizations 	Vargo S.L., Lush R.F. 2004, Webster, Malter and Ganesan, 2005; Kotler, 2008	«Spread»	European countries, USA, Russia, Ukraine	economic and geographical analysis of the territory, formation of the territorial marketing concept within geomarketing	Kotler P., Haider D., Rein I., Berezovich I., Golubkova E.P., Orlova G.M., Pankrukhina A.P., Balabanova G.V., Golikova A.P., Chernomaz P.A.

In general, several approaches to geomarketing developed in Russian science, among which the most common are the following (table 3).

TABLE III. DESCRIPTION OF GEOMARKETING APPROACHES (COMPILED BY THE AUTHORS)

Dominant approach	Tasks	Author's commentary on the approach to the geomarketing evolution	Instrumental apparatus
Spatial, design and analytical [10, 13, 14, 15]	operational gathering, visual representation of market information	<ul style="list-style-type: none"> marketing research technology presentation of market analysis and customer behavior criteria increase in KPI business (spatio-temporal study of heterogeneous data) 	Geographical (<i>use of geographic data</i>)
Management [16, 17, 18, 19, 20, 21]	<ul style="list-style-type: none"> product offer management, assortment policy positioning of regional markets promotion of geoproducts planning of trade and retail networks, service 	the result of geographical and marketing tools combination to effective strategic business management	Geographical (<i>vernacular zoning</i>) Marketing (<i>use of territorial marketing elements</i>)
Geoinformation [22, 23]	<ul style="list-style-type: none"> planning of construction objects (social, commercial) search of optimum locations variant forecast and assessment, visualization of the "client portrait", determination of the territorial features of clients 	<ul style="list-style-type: none"> integration of geoinformation and marketing data thematic mapping use of analytical business analysis tools to optimize business tasks 	Geographical (<i>elements of territory mapping</i>) Marketing (<i>analytical apparatus tools of management</i>) Geoinformational (<i>GIS technology, methods of geoinformatics</i>)

Modern geomarketing applies spatial analysis and visual modeling. It enables to carry out an integrated study of global and local spatial and economic processes. This makes it an irreplaceable tool for a spatial economy. The geomarketing uniqueness is in the integration of geographical research functions evolve to solve the socio-economic and political problems of regional development in the context of digitization of marketing knowledge.

IV. CONCLUSIONS

1. The problem of the geomarketing development as a fundamental scientific direction considered in this article is largely due to the socio-economic conditions of the enterprises existence and the possibility of a detailed and illustrative research of the market formation territorial features, consolidating both marketing tools and information technologies, geography. Geomarketing is a tool of classic marketing evolving from the socialization phase using a tool complex of marketing-mix (4P).

2. Initiation of scientific research within the business school of the regional economy, using the specialists skills in the field of geography, which consist in the regional markets study in terms of marketing criteria and conditions, the presence of potential business trends, verification of geomarketing maps.

3. The formation of the territorial marketing concept focused on improvement the territories attractiveness in terms of investment policy. The framework use of geomarketing as a special tool in traditional marketing aimed at geographic segmentation (geosegmentation) of the market and geographic positioning (geopositioning) of goods and services.

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