THEORETICAL AND PRACTICAL ASPECTS OF INTRODUCING INNOVATIONS IN THE ENTERPRISE’S MARKETING ACTIVITY

The subject of this study is a new direction in the marketing activities of the enterprise - neuromarketing, which uses the latest developments in the field of psychology, neurobiology and behavioral economics in the analysis of consumer behavior. The goal of the study is to determine the definition of “neuromarketing”, provide a comparative analysis of traditional marketing and neuromarketing, to identify strengths and weaknesses, opportunities and threats of neuromarketing, and create a new information component of the system for scanning strategic information of business entities of the country. Further development of certain theoretical and practical aspects of the use of neuromarketing as an effective modern toolkit for product promotion in commodity markets has been studied. The following tasks are solved in the article: analysis of the theoretical and practical aspects of the use of neuromarketing, analysis of the main methods for obtaining and processing relevant information. The following methods are used: theoretical generalization, comparative analysis, analytical, analysis and synthesis, SWOT analysis. The following results were obtained: descriptive model of neuromarketing was proposed; the principles of neuromarketing were formulated; the comparison of neuromarketing and traditional marketing was done; the main ethical problems of neuromarketing research were considered; the SWOT-analysis of neuromarketing, which will contribute to a clearer understanding of the nature was carried out, advantages and disadvantages of the new innovative marketing technology were studied, assessment of the prospects for the development of neuromarketing in the country was considered; proposals for the further development of the marketing information system of the enterprise by supplementing its primary information obtained in the process of applying neuromarketing – an innovative marketing technology were developed. Conclusions: It has been established that neuromarketing is an innovative modern instrument of traditional marketing, a promising method of product promotion. A study of neuromarketing has shown that this area today is one of the marketing technologies of the future; the functionality of it has not yet been fully formed and explored. However, today neuromarketing is a powerful innovative marketing tool that, over the quarter century of its existence, has made a significant contribution to both the development of business structures and the science of traditional marketing.

Keywords: marketing activity; neuromarketing; innovative technology; consumer; neuromarketing formula; relevant information; SWOT analysis.

Introduction

In today's changing economic conditions, the market for goods and services is constantly undergoing drastic changes. The marketing activity of an industrial enterprise is the direction of its production and commercial activity, which is aimed at identifying and meeting the needs of market consumers in products through exchange for profit. In a competitive environment to develop effective strategies for the sale of goods and services, marketers are forced to look for modern, innovative means of conducting marketing research on consumer behavior. Recently, researchers, scientists, experts note that the use of traditional marketing methods, which are not always effective and are quite common, does not provide the desired results [1].

In the period of active development of neurophysiological and psychological Sciences, the conclusion of market researchers becomes logical. In order to study consumer behavior and their wishes, it is necessary to ensure the direct participation of consumers themselves in conducting relevant research [2]. As a result, many manufacturers have started using neuromarketing in their marketing activities in order to activate the process of promoting their products and services in foreign and domestic markets. A significant amount of research conducted in this area indicates that neuromarketing is becoming a tool of the future, the use of which opens up wide opportunities for marketers.

Analysis of recent research and publications

Many foreign and domestic scientists have been engaged in research of theoretical issues of neuromarketing, namely: J. Saltman [3], A. Trindle [4], B. Oyeman, M. Lindstrom [5], D. Lewis [6], P. Dooley [7], E. Plessie, P. Glimcher [8], R. Solso [9]; M. Borodin [2], I. Astakhova [10], O. Kurban, S. Kurban [11], N. Skrygun [12], A. Krashnikov [13], A. Figun [14], M. Chernova, O. Klepikov [15] and others. However, the analysis of the professional literature on the selected topic of the work showed that some issues of theoretical orientation require further research, which led to the relevance of the research topic.

Selection of previously unsolved parts of the overall problem

An analysis of the professional literature on the chosen research topic revealed that, despite the significant amount of theoretical work and the number of applied research, neuromarketing is a new area that requires the use of expertise and more thorough research to study a particular business problem. It was also found that not only the essence of the definition of "neuromarketing", but also some theoretical and practical aspects of neuromarketing as an effective modern tool "promotion tool" have not been studied enough. There has been no complete analysis of the strengths and weaknesses, opportunities and threats of neuromarketing in order to use it effectively. This is what determined the relevance of the research topic.
Formulation of the purposes of the article (task statement)

The purpose of the research is to define the definition of the concept of "neuromarketing", conduct a comparative analysis of the concepts of traditional marketing and neuromarketing, conduct a SWOT analysis of neuromarketing in order to identify its strengths and weaknesses, opportunities and threats, develop recommendations for improving the system of scanning strategic information of business entities by supplementing it with primary neuromarketing information.

Results of the research

The concept of "neuromarketing" has emerged relatively recently in the world economy, but, despite this, is already of great interest to both marketers and potential consumers. The new way of influencing the market behavior of buyers of goods opens up a new promising opportunities to researchers, specialists - representatives of business entities for improving the effectiveness of both the whole marketing complex and its important communication component. That is why neuromarketing, as a tool for influencing consumer behavior, is gaining more and more popularity among practicing marketers, is becoming a necessary condition for launching successful advertising campaigns, creating and promoting a new, innovative product. Neuromarketing research allows to obtain unique primary information about the preferences of the target audience (potential consumers) about the features of the product, its characteristics, "soft and hard" parameters of competitiveness, which together have the maximum impact on the human subconscious in deciding to buy a product on the market [13].

An example of the use of neuromarketing is a study by Frito Lay; a company that produces chips Lays [12]. It showed that the use of natural and matte colors, as well as photos of healthy products do not motivate to buy. Therefore, the company began to use a shiny package of bright colors with the image of fried chips. Google once studied which ad formats YouTube users liked best. The choice was between overlays (small banners at the bottom of the screen) and prerolls (commercials that run before the main video). It turned out that viewers prefer overlays, so the company delved into the development of this area [27].

It should be noted that the concept of neuromarketing, as scientists believe, was developed by psychologists at Harvard University in the last century. However, the founders of this direction is traditionally considered to be General Director Retail branding AG Arndt Traindl and Director at the store branding Retail branding Bart Aamana. General method for the neuromarketing was developed in the late 1990-ies, Harvard Professor Jerry Zaltman, immediately patenting it called ZMET (Zaltman Metaphor Elicitation Method, i.e. a method for retrieving metaphors Saltmen) [3]. The technique ZMET consists in the recognition of the human unconscious with specially selected sets of images that cause a positive emotional response and activate hidden images, metaphors stimulating the purchase of [16]. Marketing technology, which is based on the technique ZMET quickly, gained popularity among hundreds of major companies-customers, among which can be noted Coca-Cola, Pepsi, Nestle, General Motors, and Procter & Gamble etc. The term "neuromarketing" was suggested by Professor Smids in 2002, and the first international conference devoted entirely to neuromarketing study was conducted in 2004 in the United States. According to F. Kotler, today, neuromarketing has evolved to a full-fledged marketing direction [17]. The technology of neuromarketing put the model, according to which more than 90% of human mental activity, including emotion, takes place in the subconscious area that is below the levels of controlled awareness. The concept of neuromarketing is based on the recognition that a potential user primarily perceives the stimuli of the market environment at the level of neurophysiological signals.

The concept of “neuromarketing” in the Great Glossary is interpreted as follows: one of the modern concepts of marketing influence in retail, which is based on the study of consumer psychology, using the technology of “scanning” the brain of potential consumers to determine which images the target group responds most actively and relies on the feelings and emotions of customers [18].

Thus, neuromarketing can be defined not only as a new direction, but also as a new field of marketing research, which studies the sensory, cognitive and emotional responses of consumers to marketing incentives that influence their decision-making about purchasing a specific product [19], which will contribute to the growth of sales volumes of industrial enterprises or distributors, jobbers, dealers-independent large market intermediaries.

Neuromarketing, as a new type of science "marketing", is based on the achievements of neurobiology, neurophysiology, psychology, behavioral economics and, of course, traditional (classical) marketing. This opens up new possibilities not only for determining the consumer's attitude to products, which is characteristic of traditional marketing, but also for the impact on his subconscious. The proposed descriptive model of neuromarketing is shown in fig. 1.

Neuromarketing is an innovative tool of marketing science, in the modern sense - innovative marketing. The condition for implementing the strategy of advanced development of industrial enterprises today is the introduction of the concept and technologies of innovative marketing, production and sale of innovative products, which directly affects the high level of competitiveness of the enterprise in foreign and domestic markets [20-22]. Let’s formulate the basic principles of neuromarketing as follows:

a) the impact on consumer behavior by methods of neuroscience to form in them a positive perception of supply:

b) the use of unexpected, non-standard stimuli of potential consumers:

c) the effective use of all human senses as a condition for victory in the struggle for the buyer;
d) the use of tools of all types of neuromarketing in conducting neuromarketing research; e) the permanence of the process of studying opinions and stimulating behavioral reactions of consumers.

Fig. 1. Descriptive model of neuromarketing. Source: author's development for [2, 13-15].

Adherence to these principles will contribute to the development of sales strategies of industrial enterprises, increase the efficiency of their marketing activities, and increase sales of goods (services). All this indicates that the introduction of the latest innovative neuromarketing technology in the system of traditional marketing is a relevant and promising area of modern domestic enterprises. Comparative characteristics of traditional marketing and its new type – neuromarketing are presented in fig. 2.

Fig. 2. Comparative characteristics of traditional marketing and neuromarketing. Source: author's development
According to the results of neuromarketing research, the company receives adequate, relevant specific primary information, on the basis of which the array (bank) of Big Data is formed. The received information about the reactions of the respondents becomes a new source of replenishment of the marketing information system (MIS) of the enterprise, part of a continuous system consisting of procedures and methods for continuous receipt, analysis and interpretation of both primary and secondary information needed to provide, integrate, support and the transfer of information to the managers of the enterprise in a form suitable for them to make informed management decisions [23].

Since neuromarketing is a fairly new concept of marketing research, it increases the interest of researchers and practitioners in a more thorough study, analysis of the peculiarities of its application. One of the most common and effective methods of analysis is the so-called SWOT-analysis, which is known to involve the identification and assessment of strengths, weaknesses, as well as opportunities and threats. It studies the internal strengths and weaknesses of the object of study, evaluates the prospects for further development of its capabilities, taking into account the manifestation of risks and effective ways to protect against them, provided by the market [20, 21]. As practice shows, currently SWOT-analysis is used in various fields. Its versatility allows it to be used at different levels and for different objects [24, 25].

All this became an objective basis for conducting a SWOT-analysis of neuromarketing, which allows a more thorough understanding of the current state of neuromarketing and future prospects for its development in Ukraine. Strengths and weaknesses of the use of neuromarketing, i.e. its advantages and disadvantages are presented in table 1.

Opportunities and threats of neuromarketing are presented in table 2.

### Table 1. Strengths and weaknesses of neuromarketing

<table>
<thead>
<tr>
<th>Strong side</th>
<th>Weak side</th>
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<tr>
<td>More effective study of various consumer inquiries regarding the impact on them of individual components of a set of marketing activities, which allows you to quickly get hidden information about the specific benefits of brands, products of different manufacturers</td>
<td>The need for both the use of specific equipment required for research, and the need to involve highly qualified specialists who are able not only to obtain specific information, but also to process it correctly, competently</td>
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<td>Evaluation of the appearance of the object using biometric tools</td>
<td>High cost of neuromarketing research</td>
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<td>The use of certain psychological tools to assess the perception of the brand of the enterprise or its product</td>
<td>The duration of the collection of neuromarketing information and the duration of its special processing</td>
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<td>Focus on the marketing concept, which is formed on the basis of consumer data</td>
<td>The need for additional study of the ethics of neuromarketing research</td>
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<td>High quality of neuromarketing information, the effectiveness of the impact of marketing incentives on consumers, the lack of subjectivity in research, the clarity of the obtained primary data</td>
<td>Insufficient attention from scientists to a more detailed study of the problems of the spread of practical use in the country of methodological tools of innovative technology - neuromarketing</td>
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<tr>
<td>Overcoming a number of barriers in the process of conducting marketing research using traditional methods</td>
<td>Quite a complex procedure for conducting neuromarketing research in terms of choosing a room equipped with special medical devices</td>
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<td>Variety of used special instrumental methods used in neuromarketing research</td>
<td>The need for highly qualified interviewers and respondents who are a priori positive about participating in experiments</td>
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<td>Increasing the company’s profit and increasing the efficiency of promoting its brand, product, provided the use of neuromarketing tools</td>
<td>The emergence of a negative synergistic effect due to the shortage in the country of scientists, researchers, specialists in the field of neuromarketing</td>
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<td>The uniqueness of the information obtained from the results of neuromarketing research, which is based on a combination of certain aspects of the theory and practice of marketing, psychiatry and neurophysiology</td>
<td>Private results obtained from conducting neuromarketing research on the basis of a small sample do not always provide a high level of representativeness of the obtained primary information</td>
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Source: developed by the authors taking into account [14, 16, 24, 25].

### Table 2. Opportunities and threats of neuromarketing

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<th>Opportunity</th>
<th>Threat</th>
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<tr>
<td>1. Formation of a new direction of research in marketing, interesting for the study of human neural activity at the time of purchase of goods</td>
<td>State reduction of planned funding for sectoral applied research in the fields of psychiatry, neurophysiology and marketing</td>
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<td>Increasing the sample size several times when conducting neuromarketing research compared to traditional provides a higher level of adequacy of the information obtained</td>
<td>Over time, the likelihood increases that in the near future a person may and will be completely deprived of the ability to make reasonable independent decisions about the choice of a particular product</td>
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<td>Study of the reaction of many people (potential consumers of market products) both in the natural environment and in the laboratory</td>
<td>Impossibility to fully predict the social consequences of the introduction of the achievements of neuroscience in the marketing activities of enterprises</td>
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Correspondence of the developed methodology of collection of primary neuromarketing information to the set purposes of research for the decision of concrete problems of commodity producers - subjects of market relations

Carrying out of neuromarketing researches on various organizational forms: external, internal, mixed

Development of products that best meet consumer demand

Obtaining primary, exclusive, reliable, relevant, targeted marketing information, the use of which will strengthen the market position of the enterprise in a competitive environment

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<td>Correspondence of the developed methodology of collection of primary neuromarketing information to the set purposes of research for the decision of concrete problems of commodity producers - subjects of market relations</td>
<td>Outflow of qualified personnel in the field of marketing and medicine due to insufficient funding and reduced attention from managers to the conduct of fundamental, exploratory and applied research in the country</td>
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<tr>
<td>Carrying out of neuromarketing researches on various organizational forms: external, internal, mixed</td>
<td>The presence of demographic, financial, political, economic instability in the country</td>
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<td>Development of products that best meet consumer demand</td>
<td>Conscious use of the mechanism of manipulating the consciousness of consumers</td>
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<tr>
<td>Obtaining primary, exclusive, reliable, relevant, targeted marketing information, the use of which will strengthen the market position of the enterprise in a competitive environment</td>
<td>There is an urgent need for both marketers who have the necessary knowledge and have certain skills in the field of marketing, and the need for highly qualified specialists in the field of neuroscience, who are able to solve applied marketing issues.</td>
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Source: developed by the authors taking into account [14, 15, 24, 25].

The unambiguous advantage of neuromarketing is the use of many methods to identify the consumer's subconscious attitude to products/design/advertising and their components. These methods vary according to the tools used, but they all have a common goal - to create a set of techniques that affect the subconscious of consumers and ensure their loyalty, turning loyalty into a desire to own a product, and this desire - a regular need. In addition, the use of neurobiology methods to study consumer reactions allows you to see more objective reactions and emotions of the buyer to advertising or product than those that can be learned from the customer, who often gives already processed, interpreted and rational, and therefore incomplete and insufficiently objective information.

Neuromarketing methods in accordance with [12, 14, 26] include such as: monitoring the human cardiovascular system (measuring heart rate, pressure and vascular tone); measuring the electrical resistance of the skin (to detect increased sweating); recording facial muscle contractions; analysis of evoked potentials (analysis of the brain's response to certain stimuli); eye tracking (recording the direction of the gaze, pupil size and duration of gaze delay). Eye tracking allows to determine the degree of concentration of a person on a particular object and the change in his emotional state. It should also be noted that increasing the sample size several times will improve the quality of information obtained as a result of neuromarketing studies, and this will improve statistics and forecasts.

As well as strengths and capabilities, neuromarketing has weaknesses and threats. One of the important weaknesses of neuromarketing is the question of research ethics. This is a problem that needs further study, as there are new tools for research, new schemes of processing and application of the results [10, 15]. In fact, firms, companies have gained access to the subconscious of their customers, that is, acquired the ability to control the decision-making process to purchase a particular thing or service. However, due to the ability to observe the brain in high spatio-temporal resolution and receive information about events in it in real time, in the last one and a half to two decades, significantly increased opportunities to understand consumer behavior in purchasing decisions and this trend will eventually only intensify.

Deep awareness of the secrets of the human psyche makes it possible not only to diagnose various diseases, determine the capacity and judgment of intellectual abilities or gain accurate knowledge about the benefits of shopping, but also allows you to use the information to control the processes occurring in these cases. In addition, neuroscanning is “armed” by forensic and government agencies to identify specific behaviors of a particular person. Today, against the background of a revolutionary breakthrough in neuroscanned technologies, the question of awareness of the possible consequences of the uncontrolled application of these methods is more relevant than ever. Against this background, the creation of an effective comprehensive neuroethical approach, both in theory and in practice, is significantly delayed. It can be assumed that any attempts to determine the extent and limitations in the use of neuromarketing will currently encounter barriers related to the inability to fully predict the development of neuroscience and social consequences.

As for the main existing ethical problems of neuromarketing today, they include: the omission of the main objectives of the experiment (researchers interfere in the private opinions of the consumer, which he cannot hide, and use them for their own purposes); discrimination of individuals by influencing the psychophysiological vulnerabilities of the consumer; the use of remote images in advertising or product design that do not correspond to its essence; lack of funds for supervision and control of neuromarketing research [10]. In addition, there is a danger that in the near future a person may be deprived of a reasonable choice, as the emotional component of personal consumer decision-making will be leveled by experts in the field of neuromarketing. As a result, the potential buyer will not be able to refuse the goods offered to him. Nevertheless, it can be stated that the level of awareness of the need to accelerate the process of formation of neuroethics and, as a consequence, a positive attitude to neuromarketing as an innovative technology of marketing research has recently increased.

Conclusions

The study of theoretical and practical aspects of the application of innovations in marketing activities of enterprises revealed that today neuromarketing is definitely an innovative, promising technology to
stimulate market demand, increase the effectiveness of measures to promote the product, brand, and website. As traditional marketing and sociological methods of collecting information are not always reliable, as the consumer is influenced by many factors, it should be expected that the frequency of neuromarketing research in the near future will only increase. Therefore, the task of conducting a SWOT-analysis of neuromarketing and the use of the obtained results in the marketing activities of enterprises became important. The introduction of innovations in the marketing activities of enterprises requires the joint efforts of both marketers and specialists in the field of neuroscience to carefully study the mechanism of influence on consumer behavior with the ultimate goal to ensure the effective promotion and sale of goods in markets. Today, neuromarketing is a powerful innovative marketing tool, which for a quarter of a century of its existence has made a significant contribution to the development of business structures and the science of traditional marketing.

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ТЕОРЕТИЧЕСКИЕ И ПРАКТИЧЕСКИЕ АСПЕКТЫ ВНЕДРЕНИЯ ИННОВАЦИЙ В МАРКЕТИНГОВУЮ ДЕЯТЕЛЬНОСТЬ ПРЕДПРИЯТИЯ

Предметом исследования данной работы является новое направление в маркетинговой деятельности предприятия – нейромаркетинг, который использует новейшие разработки в области психологии, нейробиологии и поведенческой экономики в анализе поведения потребителей. Целью исследования является определение дефиниции понятия "нейромаркетинг", проведение анализа понятий традиционного маркетинга и нейромаркетинга, выявление сильных и слабых сторон, возможностей и угроз нейромаркетинга, что создаст новую информационную составляющую системы сканирования стратегической информации субъектов хозяйствования страны. Дальнейшее развитие отдельных теоретических и практических аспектов применения нейромаркетинга как эффективного современного инструментария системы продвижения продукции на товарных рынках. В статье решаются следующие задачи: проведение анализа теоретических и практических аспектов применения нейромаркетинга, анализ основных методов получения и обработки релевантной информации. Используются такие методы: теоретическое обобщение, сравнительный анализ, аналитический, анализ и синтез, SWOT-анализ. Получены следующие результаты: в работе предложена дескриптивная модель нейромаркетинга; сформулированы принципы нейромаркетинга; проведено сравнение нейромаркетинга и традиционного маркетинга; рассмотрены основные этические проблемы нейромаркетинговых исследований; проведен SWOT-анализ нейромаркетинга, что будет способствовать более четкому пониманию сущности, преимуществ и недостатков новой инновационной технологии маркетинга, оценке перспектив развития нейромаркетинга в стране; разработаны предложения по дальнейшему развитию маркетинговой информационной системы предприятия дополнением ее первичной информации, полученной в процессе применения нейромаркетинга - инновационной технологии маркетинга. Выводы: Установлено, что нейромаркетинг является инновационным, современным инструментом традиционного маркетинга, перспективным методом продвижения товара. Изучение нейромаркетинга показало, что это направление на сегодняшний день является одной из технологий маркетинга будущего, функционал которого еще до сих пор не до конца сформирован и исследованы. Однако сегодня нейромаркетинг является мощным инновационным инструментом маркетинга, который за четверть века своего существования сделал существенный вклад как в развитие бизнес-структур, так и в науку традиционного маркетинга.

Ключевые слова: маркетинговая деятельность; нейромаркетинг; инновационная технология; потребитель; формула нейромаркетинга; релевантная информация; SWOT-анализ.

Библиографические описи / Bibliographic descriptions
