

МАРКЕТИНГ

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INNOVATIVE TECHNOLOGIES IN MARKETING STRATEGIES FOR BUSINESS DEVELOPMENT

The article explores the application of innovative technologies in strategic marketing planning under digitalization and AI development. The authors justify the relevance of using neuromarketing, design thinking, augmented reality, and IoT to enhance consumer interaction and business competitiveness. Modern marketing strategies require creative thinking and interdisciplinary integration, combining digital tools with neuroscience and computer technologies. Special attention is given to the retail sector, where innovations directly influence customer experience and decision-making. The practical recommendations for adapting innovative technologies in business environments to ensure effectiveness and sustainability. These technologies contribute to optimizing internal business processes, improving inventory control, personalizing customer offers, and increasing loyalty through digital and intelligent solutions

Keywords: marketing strategies, innovative marketing, digital marketing, neuromarketing, design thinking, augmented reality, Internet of Things.

JEL classification: M30

Statement of the problem. Modern world demonstrates, that competition in the market for products and services is extremely high, which poses challenges for companies in terms of the effectiveness of their marketing strategies. In the context of constant information overload and changing consumer preferences, there is a need to introduce new, more effective methods of attracting attention and influencing the target audience. The modern consumer is becoming more and more demanding and requires specific methods of influencing his or her choice.

The development of scientific and technological progress and information technology has led to the emergence of new terms and concepts in marketing. In this regard, new tools for influencing consumers and new ways of interacting with them began to appear. Back in his writings, Philip Kotler noted (2017) that humanity is entering the era of the digital consumer and the requirements for interacting with them vary significantly. In his research, Seifert R., Otten C. (2023) and others prove that the change in digital distribution platforms for movie and book releases significantly increases the demand for these products. In turn, Palamarchuk O. (2023) proves that traditional marketing channels significantly reduce demand in

contrast to digital ones. According to the results of Karpenko L. and Ostapchuk A. (2022), the use of neuromarketing in modern practices allows combining the use of neuropsychology in the field of marketing and allows for in-depth research that is not possible using traditional marketing research methods.

Analysis of recent research and publications. Re-search on the use of digital technologies in marketing and innovative methods of marketing strategic planning is carried out by both foreign and Ukrainian scientists. In particular, the works of Philip Kotler, Kumar V. [14], Seifert R., Otten C. and others [21], consider the complete immersion of marketing processes in digital technologies and the combination of such things as the Internet of Things and robotization in the implementation of marketing strategies. Innovative practices of marketing strategic planning are considered in the works of Ilyashenko N. [7], Romanenko L. [19], Palamarchuk O. [18] and others.

Such scholars as Oklander M., Yashkina O., Zlatova I. and others [17], Bondarenko V. and Omelianenko O. [3], Golovanova M. [6] and others have devoted their works to the problems of digital marketing development, the peculiarities of using its methods and tools in the modern information society. The authors managed to prove that digital technolo-

gies are significantly ahead of classical ones and contribute to business development.

The use of design thinking technologies is considered in the researches of Wolniak R. [25].

The use of neuromarketing technologies in influencing the consumer is considered in the works of T. Borisova [4], A. Danyliuk, [5], L. Karpenko [10] and A. Ostapchuk [9].

Objectives of the article. In the article, we propose to achieve the goal by searching for and identifying reasonable approaches to changing the directions of marketing strategies by modern businesses and identifying innovative practices in the development of strategic directions of modern enterprises.

Having analyzed numerous studies in the field of digital marketing, the authors propose to use digitalization and robotization technologies, neuromarketing and design thinking to attract and retain consumers by modern enterprises.

Summary of the main research material. Design Thinking is a set of ideological and methodological attitudes that emerged at the turn of the millennium as a reaction to the emergence of a new economic system with the inevitable reassessment of the values of the old economy. Design thinking as a management philosophy originated in the United States and is a product of coaching. In Western countries, the peak of design thinking as an innovative technology has already passed – it has been implemented and supported by most manufacturing companies.

From the methodological point of view, design thinking approaches refer to heuristic methods of solving problems under conditions of uncertainty of the so-called non-standard tasks, which are usually opposed to tasks not related to creative search. Their main features are cyclicity, nonlinearity (even, at first glance, chaos), and the absence of algorithmic step-by-step approaches to the formation and refinement of innovative ideas.

Initially, the methodological tools of design thinking were honed to solve complex problems of creating and developing a new product. However, design thinking approaches became especially relevant when the need for mass production of innovations arose.

Today, the philosophy and approaches of design thinking are actively used in innovative entrepreneurship to create new businesses and generate business models. There is a growing trend of using design thinking to create desired scenarios for the future, as the activities of any organization will increasingly be determined by a holistic vision of the society it serves to build. Futurodesign – the conscious design of the future – is seen as a development of the design thinking paradigm at a new level, which is required by the world and human society. Design thinking in business culture has influenced not only the first stage of innovation development, but also the process of managing its implementation.

Design thinking is:

- a toolkit for developing a marketing strategy and launching a product;
- based on a deeper immersion in the consumer's environment;
- in order to determine their basic needs;
- and taking into account the emotional aspect of consumption.

As a modern business tool, design management acts as a kind of interface between management and design and acts as a link between design thinking, design, technology, corporate governance, brand management and marketing management at the internal and external levels of a company's

activities. The main theses of design management are the following:

1. Design is seen as a way of identifying and solving user problems, as well as studying their behavior and engaging them in the design process based on the needs, expectations and capabilities of users.

2. Design as a multidisciplinary and cross-functional innovation activity. By uniting specialists from various fields: management, engineering, marketing, as well as psychologists, sociologists, anthropologists and art historians into a single team.

3. Design as a holistic and strategically important activity. Design is a key element of strategic planning within the company, combining all stages of the innovation process, from product idea, customer interaction and management to visualization for making strategically important decisions.

It is also necessary to mention several components that define the new concepts of design thinking and design management. These include a team approach to design and the proper organization of the design space. The main emphasis in developing innovations is on group thinking, which arises from the unification of specialists from different professional fields in conditions of constant joint finding, discussion of ideas and their elaboration in detail.

In design management, a kind of migration (temporary) of specialists from one field to another is practiced, when they perform an additional function in addition to their own. At the same time, their new, fresh, so to speak, “outsider” opinion on a given production process is investigated, and as a result, adjustments are made to improve it.

So, design thinking is a methodology for innovation. It is carried out through:

- a) the process of accumulating ideas and thinking outside the box;
- b) making risky decisions in the early stages of design;
- c) eliminating the fear of failure;
- d) a deep understanding of consumers, their goals, behavior, and inclinations;
- e) early testing of ideas to get quick feedback from consumers;
- f) changing the use and perception of product value.

Modern technologies of marketing strategic planning involve the use of innovative approaches based on the use of non-traditional technologies, a combination of different areas of research and creative thinking.

Neuromarketing methods are based on the study of brain reactions to various stimuli and stimuli that cause an emotional response. This allows to investigate the causes of attention, emotional reactions, memory, and other functional states of the brain in the context of marketing strategies. In particular, neuromarketing research helps to identify the degree of emotional attention and peculiarities of consumer cognitive behavior regarding product packaging, its location, appearance, taste, aroma, advertising images, website structure, etc. The main types of neuromarketing include marketing research to determine brain reactions, aroma marketing, audio marketing, and color psychology. Each of these areas allows you to influence consumers through different channels of perception, which expands the capabilities of marketing strategies and increases their effectiveness.

The most effective innovative marketing technologies combined with customer interaction are used by retailers. They have the ability to directly interact with consumers during the purchase process.

Optimizing the placement of goods on the shelves is a key aspect that needs to be improved to increase sales efficiency and improve the consumer experience. First of all, it is recommended to improve eye-tracking technologies for a detailed analysis of consumer interaction with shelves. This technology allows you to accurately determine which places customers most often pay attention to and, accordingly, optimize the location of goods. Conducting additional research using eye-tracking will help identify the best places to place popular and promotional products, which will help increase their sales. Such studies may include an analysis of different areas of the store, product types and ways of presenting them, which will ultimately allow you to create more effective strategies for the location of goods.

The use of color solutions in marketing will allow you to influence consumers while they are directly interacting with the product. In particular, warm colors, such as yellow and red, can have a significant impact on customer perception. Yellow is associated with joy, warmth, and energy, making it ideal for highlighting promotional offers. It is quickly noticed visually and evokes positive emotions, which stimulates customers to pay attention to the relevant products. Red is also effective in attracting attention because of its association with importance. Using these colors to label discounts, new products, or popular products will help attract more customers and increase sales.

Digital marketing has long been a pioneer in the technological processes of marketing activities in the market. Among the most acceptable digital marketing tools, neurotechnologies and consumer involvement in the process are the following:

- 1) The use of dynamic electronic price tags will allow for automatic updating of price and discount information in real time. This will not only save staff time, which is usually spent on manually updating price tags, but will also allow them to respond quickly to changes in the market situation and competitive actions. Electronic price tags can be linked to a centralized management system, which will allow you to instantly apply discounts or promotions in all stores of the chain at the same time. In addition, such price tags can display additional information about the product, such as nutritional value, product origin, or recommendations for its use, which will help the customer make an informed decision. The introduction of dynamic price tags also opens up opportunities for more sophisticated marketing campaigns, such as discounts at certain times of the day or personalized offers for loyalty program members.

- 2) The introduction of smart shelves and dynamic price tags will significantly improve the efficiency of operational processes in sales areas, provide better customer service and increase customer satisfaction. It will also allow the company to use the latest technologies to create a competitive advantage in the market, providing flexibility in pricing and accuracy in inventory management.

- 3) Implementing a strategy of personalized offers for the supermarket chain, which will significantly increase customer engagement and brand loyalty. First of all, the use of big data will be a key element in creating personalized offers. Analyzing data on customer purchases and behavior will help identify their preferences, habits, and needs. This includes studying the frequency of purchases, the categories of goods they buy most often, and their reactions to various promotional offers. The information obtained will allow us to segment customers by various

criteria and create individual offers for each segment that best meet their expectations. This approach will increase customer satisfaction and encourage repeat purchases.

In addition, the use of mobile technologies will allow businesses to effectively communicate with customers and provide them with personalized offers in a way that is convenient for them. Mobile applications and SMS messages can become the main channels for delivering these offers. Customers will receive messages with individualized discounts, promotions, and recommendations directly to their mobile devices, allowing them to respond quickly to profitable offers. For example, customers who regularly purchase a certain product can receive discounts on that product or recommendations for similar products. This will not only increase customer convenience but also strengthen their brand loyalty.

The introduction of personalized offers also opens up opportunities for the development of loyalty programs. With the help of data analysis, you can develop individual loyalty programs that will be maximally adapted to the needs of each customer. For example, customers who frequently buy organic products can receive special bonuses or discounts for this particular category of goods. This will encourage them to make more frequent purchases and increase their overall satisfaction with the service provided by the retailer.

The possibility of implementing mobile applications with augmented reality (AR) technology, which will allow customers to receive additional information about products, promotional offers and shopping recommendations directly while in the store. Shoppers will be able to scan products with their smartphones to learn about their composition, calorie content, possible recipes and other useful details. This will not only increase customer awareness of the products, but also increase their interest in shopping.

Additionally, AR technology can be used to help customers find the right products in the store. By using interactive maps and tooltips, customers can easily navigate the store floor and quickly find the products they need. This will significantly improve their shopping experience and make the shopping process more convenient and enjoyable.

Installing interactive screens in different departments of the store. These screens can provide product information, recipes, product pairing recommendations, and other useful tips. For example, in the fresh fruit and vegetable department, screens can show recipes for dishes that can be prepared with these products or give tips on how to store and handle them. In the confectionery department, screens can show dessert recipes or tell about the characteristics of different types of chocolate and pastries. This will not only increase customers' awareness of the products, but also make the shopping process more exciting and informative.

Interactive screens can also be used for marketing campaigns and promotions. For example, they can inform customers about current discounts and special offers, as well as show videos with product demonstrations or recommendations from famous chefs and nutritionists. This will help increase customer interest in the products and encourage them to make purchases.

Implementation of an internal intelligent system that will significantly improve the efficiency of inventory management and control over turnover. This system will include a number of innovations:

- intelligent shelves equipped with sensors that track the movement of goods. These shelves will automatically update

information on the stock of goods on the shelves, which will allow real-time monitoring of the availability of goods and timely replenishment of stocks;

- the use of automatically updated electronic price tags will allow displaying current prices and discounts on goods, which will encourage customers to make purchases;

- use of pattern recognition systems. These technologies will automate inventory and stock control processes. With the help of image recognition systems, we will be able to effectively track the number of goods on the shelves and in the basements of stores, avoid losses due to expired goods and ensure the constant availability of popular items in markets;

- innovative robotization technologies and the use of the Internet of Things (IoT), which will help optimize store management processes and increase customer service efficiency. Introducing robot consultants to help customers find the right products and provide information about promotional offers. These robots will be equipped with artificial intelligence and will be able to provide personalized advice to customers, which will increase the level of service and customer satisfaction. Robotic automation of shelf replenishment and customer service will reduce staff costs and increase store productivity;

- IoT technology for inventory management. According to IoT sensors, it will be possible to monitor stocks of goods in real time and automatically order the necessary products, which will avoid the cost of manual checks and ensure the constant availability of goods in stores. In addition, the use of IoT will help to optimize logistics processes, reduce costs and increase the efficiency of supply chain management.

The introduction of new technologies and innovations for supermarket chains reflects the commitment of businesses to improve their marketing strategies and provide better customer service. The proposals developed are aimed at using advanced technologies such as AR, intelligent systems, robotics and the IoT to optimize various aspects of store operations.

These solutions will increase customer engagement, improve inventory management, reduce costs and increase staff productivity. These innovations will also help to

improve the customer experience by providing more interactive shopping opportunities and personalized service.

Conclusion. The researches found that, design thinking approaches in implementing innovations in marketing strategies will allow modern businesses to apply non-traditional approaches to interacting with consumers, which in turn will become a prerequisite for the use of other more modern technologies for digitalizing marketing.

Design thinking in the formation of a marketing strategy for business development in modern conditions involves the use of elements of digital marketing, neuromarketing and consumer involvement in product production, as is the case with the craft business.

The modern digital technologies, such as neuromarketing, the Internet of Things, robotics, design thinking, and augmented reality, are an innovative approach to marketing based on research in computer technology, neuroscience, and neuropsychology. This area allows analyzing consumer reactions to marketing influences, taking into account their psychological and neurological aspects. The development of these areas of marketing opens up new opportunities to increase the effectiveness of advertising campaigns and meet consumer needs. Such technologies provide valuable data for analyzing the effectiveness of marketing strategies and help to understand how consumers react to various aspects of the environment when making a purchase decision.

It has been proven that tools for robotization of trading processes will significantly simplify the procedure for managing inventories, optimize the processes of obtaining the desired goods by consumers and allow them to study their customer experience, which is equally important in maintaining customer loyalty.

Based on in-depth research, the authors propose a number of measures to use augmented reality, neuromarketing and the Internet of Things, which will allow businesses to implement an effective marketing strategy based on innovation. The use of such innovative approaches, even in the ordinary business environment, will maximize the level of competitiveness.

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ІННОВАЦІЙНІ ТЕХНОЛОГІЇ У МАРКЕТИНГОВИХ СТРАТЕГІЯХ РОЗВИТКУ БІЗНЕСУ

У статті проведено дослідження найбільш поширених практик застосування інновацій у галузі цифровізації та штучного інтелекту, обґрунтовано доцільність їх використання у маркетинговому стратегічному плануванні при взаємодії зі споживачами та запропоновані підходи до їх адаптації у бізнес-середовищі. Інноваційні підходи у формуванні маркетингових стратегій в сучасних умовах вимагають від бізнесу використання комбінованих технологій. Такі технології частіше за все базуються на поєднанні двох та більше іноді протилежних наук, як от нейромаркетинг. Також важливими напрямки інновацій маркетингового стратегічного планування є цифрові інструменти маркетингу, штучний інтелект, інтернет речей. В свою чергу, використання таких технологій вимагає від працівників бізнесу нестандартного мислення, яке у сучасній теорії і практиці називають дизайн-мислення, яке базується на розвитку творчості, креативності та психологічної адаптивності до викликів середовища. Сучасна наука містить чіткі та сформовані принципи дизайн-мислення, які базуються на розвитку особистісної креативності персоналу підприємства. Використання креативних підходів у маркетингових стратегіях дозволяє застосовувати інноваційні методики нейромаркетингу, роботизації, доданої реальності тощо. Особливу увагу такі методики заслуговують для застосування на місцях безпосередньої взаємодії зі споживачами. Так у статті наведені рекомендації щодо використання інноваційних технологій у торговельних мережах. Саме там відбувається взаємодія споживачів з бізнесом через купівлю товару. Сучасний споживач є досить вибагливим і традиційні методи маркетингової взаємодії не впливають на його позитивне рішення щодо купівлі того чи іншого товару. Саме тому, при розробці маркетингової стратегії будь який бізнес має адаптуватися під сучасні інноваційні технології. Чітко визначені інструменти реалізації маркетингових стратегій мають містити принципи цифрового маркетингу у поєднанні зі суміжними науками – нейробіологією та комп'ютерні технології. Запропоновані технології дизайн-мислення, нейромаркетингу, робототехніки та інтернету речей дозволять забезпечити ефективність маркетингових стратегій, що базуються на інноваціях.

Ключові слова: маркетингові стратегії, інноваційний маркетинг, цифровий маркетинг, нейромаркетинг, дизайнерське мислення, доповнена реальність, інтернет речей.