

INNOVATIONS IN DIGITAL MARKETING: THE IMPORTANCE OF CHATBOTS, CRM SYSTEMS AND ARTIFICIAL INTELLIGENCE

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Abstract: In the modern digital environment, the development of technology, especially artificial intelligence and machine learning, has led to the transformation of marketing strategies of companies. As intelligent conversational agents, chatbots are becoming indispensable tools in communication with users, improving the user experience, optimizing business processes and contributing to consumer loyalty. This paper aims to investigate the use and importance of chatbots within marketing campaigns, with particular reference to their contribution to customer relationship management (CRM) and the development of personalized strategies. Through a literature review and an analysis of existing research, the paper identifies the key benefits of using chatbots, such as 24/7 availability, reducing operating costs and enhancing user engagement. It also discusses challenges in terms of data privacy and regulatory frameworks, as well as future trends in the development of chatbot marketing. The results indicate that the integration of artificial intelligence in marketing will become increasingly important for the competitiveness of companies in the digital economy.

Key words: chatbot, artificial intelligence, marketing, CRM and digital transformation

1. INTRODUCTION

Chatbot marketing represents an innovative strategy based on the application of computer programs for automating communication with potential clients, to improve business results and increase income. This technology enables continuous interaction and qualification of the target audience, independent of the working hours of the marketing and sales teams. The primary purpose of chatbot marketing is reflected in the provision of support to users through timely responses to inquiries and initiation of communication with website visitors, thereby enabling the improvement of the user experience. Additionally, chatbots contribute to the promotion of products and services through personalized messages, thereby increasing consumer engagement and strengthening brand recognition. The work is focused on the analysis of artificial intelligence application and the importance of chatbots in the business of modern companies, with a special emphasis on their function in marketing activities. Taking into account the intensive digitalization and globalization processes, as well as the ubiquitous application of artificial intelligence in business practice, the actuality and importance of the topic that the paper deals with is clearly confirmed. The emergence of the customer relationship management system (CRM) is closely related to the development of a new marketing philosophy. During the 1960s, there was a significant change in the company's focus - from the traditional focus on increasing sales to priority satisfaction of consumer needs. Instead of striving exclusively for high sales volume, companies sought to identify and understand the real needs of their customers through marketing research. This change in approach enabled the development and affirmation of the CRM system as a key element of modern marketing.

The term marketing comes from the English word market, where the suffix -ing denotes a process or continuous activity. Although the term marketing is often tried to be translated with expressions like "market-oriented enterprise" or "sales promotion", an adequate translation in our language remains challenging, precisely because of the dynamic nature and evolution of the discipline itself. Therefore, there are different and sometimes conflicting interpretations of the content and definition of marketing in the literature [1] Marketing encompasses much more than simply promoting or selling a product; it includes a wide range of activities related to identifying, anticipating and satisfying consumer needs. Due to the multiple perspectives from which marketing is studied and applied, a large number of definitions adapted to different approaches, have been developed. According to one of the accepted

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definitions, marketing is a management process that recognizes, anticipates and satisfies consumer needs in a profitable way [2]. The American Marketing Association (AMA) defines marketing as "the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large" [3]. This definition, widely accepted in academic and professional circles, emphasizes the planning and implementation of marketing activities aimed at meeting market needs. The exchange must simultaneously satisfy the needs of both buyers and sellers. According to the research, 32% of marketing managers pointed out that creating customer satisfaction is key in defining the essence of marketing [2]. For this reason, all marketing activities should be aimed at establishing and maintaining satisfactory relations in the exchange process. If for the exchange to be successfully implemented, the buyer must be satisfied with the product, service or idea received, while the seller must be satisfied with the counter value, usually expressed through monetary compensation or other forms of value [1]. Maintaining quality relations with customers is the basic obligation of every seller, regardless of the activity — whether it is the food industry, financial services or the energy sector. Through these relationships, buyers form expectations about the seller's future behavior, and for these expectations to be met, sellers must consistently deliver on their promises. Over time, interdependence is established, whereby buyers depend on the information, choice and quality offered by sellers. The marketing environment is shaped by several dynamic factors such as legislation, reputation, political activities, social pressures, economic conditions and technological advances [4]. Each of these components affects the ability of organizations to effectively conduct marketing activities and facilitate exchange processes. For example, the rise of Internet use has opened up new channels for promoting products and services. Marketing, therefore, goes beyond the classical frames of promotion and sales, including the development and management of products and services that correspond to the specific needs of consumers. Successful marketing allows the product to be available in the appropriate place, with adequate promotion, at the optimal time and a price acceptable to the customer, while providing information that helps consumers make informed decisions [2]. The application of marketing concepts in non-profit organizations began in the 1960s, when pioneers such as Kotler, Levy, Zaltman, Shapiro and Lazer pointed out the importance of a marketing approach in the fields of health, education and culture [5]. This concept, known as social marketing, later spread to publishing, political marketing, social services and humanitarian organizations, which were previously almost exclusively managed by state institutions.

2. MARKETING AND DIGITAL TECHNOLOGIES

The digital revolution significantly affects the market flexibility and operational efficiency of companies and brands, and its impact has become so significant that no business, industry or government can ignore it. In the future, countries, entrepreneurs and individuals will be increasingly dependent on the adoption of digital technologies that enable the breaking down of geographical, cultural and personal boundaries in entirely new and innovative ways. Given that we live in a time when we are bombarded with information, the basic principles of marketing will remain the same, but will become far more personalized and contextual, allowing brands to transform their marketing strategy. Various media and communication channels require constant and continuous processing of messages and stimuli. In this context, the integration of digital technologies becomes a key element of marketing, facilitating market players to connect in an easier and more coherent way than ever before. Using chatbots in this process allows brands to enhance consumer emotions and experiences, thereby increasing their engagement and satisfaction, while becoming smarter and more cognitive within the algorithmic economy. The digital value structure works in real time, it is globally connected and consists of more than seven million people who communicate and trade online, together with billions of devices with built-in artificial intelligence that belong to these people [7]. By intertwining connections and radio waves, people managed to connect all parts of the world, all processes, people, artifacts, sensors, facts and concepts into a huge network of complexity that was previously unthinkable. This network has become a common interface of our civilization, which penetrates our everyday life to the point of becoming necessary for our identity. This structure provides a new paradigm of thinking, creating a "new mind" [6]. Digital transformation becomes unavoidable,

leading us to a specific technio - a modern cultural system and technology that speeds up the creation of new, until then impossible things, while developing new ways of social behavior. Computers and other digital advances use the ability of our brain to shape our environment, allowing us to overcome previous restrictions and open new horizons. This process leads to the transformation of traditional digitalization methods in multidimensional forms and tools to adapt individual digital technologies, resulting in stronger technological, humanistic, psychological and moral permeability, and creates the need to redefine existing activities. As a result, a convergence leads to the bipolarity of observed phenomena: dehumanization of business and humanization technologies. Artificial intelligence (AI) is a broad research field in which it is difficult to provide a unique definition, because the specific meaning of this concept depends on the area in which it is applied. Only the definition of the term is difficult due to its nature and multidisciplinary character [8]. The term "artificial intelligence" was introduced by John McCarthy in 1956. Year, when he gathered a group of researchers from various scientific areas, including language simulations, neural networks, theories of complexity and others, in order to discuss what allows this field. The workshop was called Dartmouth Summer Research Project on Artificial Intelligence, and the goal was to clarify the basic meaning of artificial intelligence [10]. The field of artificial intelligence is engaged in studying and making facilities created by a man, which show intelligent behavior, usually using computer algorithms. The main goal of artificial intelligence is the development of systems that depict general intelligence at the level of man or even above it [9]. Physicist and cosmologist Max Tegmark describes artificial intelligence systems as "closely intelligent", because, although they are able to achieve complex goals, each system is directed towards very specific tasks [8]. The definitions of artificial intelligence are adapted to the goals that these systems strive to achieve. In general, the development of artificial intelligence is motivated by three main reasons: Construction of a system that thinks like a man (known as "strong artificial intelligence"), the development of a system that functions independently of the human method of reasoning (known as "poor artificial intelligence") and the use of human reasoning as a model, but not necessarily as the ultimate goal [8].

3. CHATBOT IN CUSTOMER RELATIONSHIP MANAGEMENT (CRM)

A chatbot is a software program designed to achieve a conversation through text or voice, thus encouraging more purchases. It is most commonly used on mobile phones, Internet search engines and online rooms. Using deep learning technologies, such as natural language processing and voice recognition, chatbots can simulate human communication and find application in virtual assistants, customer support, call centers and other similar systems. Chatbots bring numerous benefits, including the most important increase in customer engagement. A quality user experience can represent a key advantage for business success. Chatbots can be integrated into communication channels that clients already use, such as Facebook Messenger, allowing companies to respond faster to their needs and better understand their desires and expectations. In addition, chatbots provide customers to more flexibility when buying online platforms, as they can communicate via voice and text in the user's language. They also help companies shorten the processing time and improve operational efficiency. Customer Relationship Management (CRM) practices yield substantial benefits for both organizations and customers, enhancing performance at managerial and customer experience (CX) levels. The primary organizational advantages associated with CRM implementation include:

- **Advancement of Customer Service Quality**
CRM systems enable firms to systematically manage customer inquiries and issues. For example, call center software solutions facilitate the connection between customers and service agents capable of efficiently resolving problems. Delivering high-quality customer service not only enhances customer retention but also contributes to increased revenue streams [11].
- **Customer Segmentation for Strategic Targeting**
Segmentation, defined as the grouping of entities based on shared characteristics, is a core functionality within CRM frameworks. By categorizing customers according to variables such

as demographics, organizations are better positioned to identify, understand, and fulfill the specific needs of distinct market segments [11].

- **Enhanced Personalization of Marketing Activities**
Through the systematic collection and analysis of customer needs and preferences, CRM systems empower firms to allocate resources strategically and to customize products and services with greater precision, thereby improving marketing efficiency and effectiveness [11].
- **Optimization of Organizational Processes**
CRM technologies facilitate the organization and automation of critical business processes, including marketing campaigns, customer data analytics, workflow management, and supplier communications. Such integration fosters greater organizational agility and operational efficiency [12].

For consumers, these account systems represent a convenient, time-saving solution. As an integral part of Apple's CRM strategy, they generate valuable customer data that facilitates deeper insights into consumer needs and supports the development of targeted marketing initiatives. Amazon stands as the leading platform for online shopping, with its effective use of CRM systems cited as one of the primary factors behind its success. Customers are required to create private accounts when purchasing from Amazon, allowing the company to track purchase behaviors and analyze transaction histories. This data-driven approach enables Amazon to design highly personalized marketing and email campaigns. Furthermore, Amazon offers one-click purchasing options through customized accounts, significantly enhancing the efficiency of the checkout process. Consumers highly value fast payment procedures and personalized product recommendations. The more seamless and tailored the shopping experience, the higher the likelihood of fostering customer loyalty. In recent years, the field of Artificial Intelligence (AI) has experienced rapid growth. AI involves the simulation of human intelligence within machines programmed to mimic human behavior and decision-making processes. Beyond its scientific applications, AI technologies are increasingly utilized by companies for administrative, managerial, and marketing purposes. One notable example is the use of AI-driven bots, or more specifically "chatbots," to optimize CRM systems [13]. Amazon.com effectively integrates AI in its e-commerce operations across a range of products, including electronics and consumer goods. The company has also expanded its services to include cloud computing, consumer electronics, digital media, and local grocery delivery services. The application of AI technologies in e-commerce enhances Amazon's profitability, operational efficiency, and the overall online shopping experience. According to Statista (2021), Amazon.com achieved annual net sales exceeding 230 billion USD in 2018.

The classification of chatbots is based on several parameters, including the knowledge domain, the purpose of the service provided, and the method used for input processing and response generation [14]:

1. **Knowledge Domain**
This classification concerns the amount of information a chatbot can process and the extent of its knowledge base. Open-domain chatbots are capable of engaging in conversations on a wide range of topics and can respond appropriately across various subjects. Siri and Alexa are well-known examples of such chatbots. In contrast, closed-domain chatbots are limited to specific topics and operate within a narrowly defined field of knowledge.
2. **Provided Service**
This categorization focuses on the chatbot's emotional proximity to the user, its level of interaction, and the specific tasks it performs. Interpersonal chatbots are primarily designed to provide users with service-related information, such as booking a restaurant reservation or a flight, without necessarily establishing a friendly rapport or remembering user data. Intrapersonal chatbots, on the other hand, operate within the user's domain, often integrated into applications like WhatsApp or Messenger. Their main function is to assist with personal account tasks such as calendar management, storing opinions, or saving photos.

Inter-agent chatbots, which are becoming increasingly prominent in the field of AI, can communicate with other bots. As bots become more widespread, the need for protocols enabling such communication is rapidly growing. Although a chatbot may not be fully inter-agent, it can still function as a service managing interactions with other bots or systems. Amazon's Alexa is a notable example; users can operate devices equipped with bot technology and various communication protocols by issuing simple voice commands, such as: "Alexa, could you please turn off the lights?" [15].

3. **Goals**

Chatbots can also be classified according to their primary objectives. Informational bots aim to deliver predefined or readily available information to users, typically relying on information retrieval algorithms.

4. **Input Processing and Response Generation Method**

This classification is based on how chatbots process input and generate responses. Intelligent systems produce replies by utilizing natural language processing techniques to comprehend user queries, and they are typically employed when sufficient data is available. Rule-based bots, in contrast, are implemented when scenarios and outcomes are predefined and fixed. Hybrid bots do not fit exclusively into one category; for example, some bots possess conversational capabilities while simultaneously being able to store user data [14].

4. CONCLUSION

Human resources have the knowledge necessary to perform work activities and develop the organization. They possess innovative abilities, intellectual, biological and physiological potentials that are a prerequisite for the development of the work process. Acquiring this resource and its work engagement is the key task of the leader in the organization. Human resource management is a part of organizational science that deals with the study of all aspects of employment in an organization. At the same time, human resource management is an important management function in the organization. Measuring employee satisfaction must always be accompanied by measuring employee motivation. They are the driving force and are expected to be professional and qualified, with clearly developed human attitudes and moral principles and to like working with people. It is necessary for them to have a high degree of empathy with all people in the organization, hierarchical superiors and subordinates, and to understand and accept the diversity of individuals in the team. If a company is lucky enough to employ a naturally charismatic leader, it is almost certain that it does not have to worry that he, with the help of public relations experts, will succeed in clearly presenting the vision, mission and goals to the employees. A leader who does not have good communication with his employees is doomed to failure sooner or later. As a rule, in companies, the human resources sector for each specific position analyzes whether the candidate meets the formal requirements, then tests him following established procedures that include checking knowledge in certain areas such as a foreign language or general culture, and an intelligence and personality analysis test is provided for almost all positions. The candidate, who is believed to best suit the needs of the job, is accepted, and it happens that the manager gets to know him when the selection is practically reduced to a choice. Almost no one ever analyzes the structure of the existing team in which the new employee should work and sees whether he will "fit in" with the existing team members. It is known that in practice the best results are achieved by people with different characteristics and visions, that is, whose diversity results in a common higher level of quality and perception of things, as well as solving set tasks. But even the best leader cannot create a team from a simple collection of individuals if the individuals are incompatible. If you ignore this fact, constant conflicts are possible that will not only weaken the entire team and reduce its efficiency, but can also lead to the situation where you lose a quality leader who was supposed to motivate people and keep them in the team in the long term. Therefore, the logical sequence would be to pay the greatest attention to the selection of the leader, and if you have successfully completed that selection, enable the leader to have the essential selection of team members in his hands, and to be technically assisted by appropriate professional services. In that case, he will be motivated to motivate his subordinates in the team in the best possible way, to take responsibility for their actions, not to spare publicly to praise them, and secretly to correct the mistakes

they make himself, which is a characteristic of real leaders. A serious company builds its stability on the human factor. Although in our practice the rule of criticism is still applied, in the world the rule of praising colleagues is much more pronounced. The success of the whole team depends on the choice of the leader.

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