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THE INFLUENCE OF CHATBOTS ON ADVERTISING CAMPAIGN PERFORMANCE

UTJECAJ CHATBOT OGLAŠAVANJA NA PERFOMANSE OGLAŠIVAČKE KAMPANJE

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ABSTRACT

Contemporary markets are oversaturated with ads, and increasingly so. The research literature indicates that a completely new era of communication has begun. The changing trends have transformed marketing and advertising. The techniques that dominated the market ten years ago, such as search engine optimization (SEO), search engine marketing (SEM), social media advertising (SMA), etc. are now referred to as the traditional media. The paper looks at the most recent advances in technology and explores how the emergence of artificial intelligence and AI-powered tools and solutions has changed the digital advertising landscape in the context of digital transformation. The paper focuses on one such driver of change – a chatbot, an automated chat system that collects data based on users' online behaviour. Chatbots have become a powerful tool for marketers who use them to engage in a conversation with users in order to promote their products and services in a less intrusive and more natural manner. While chatbot use is on the rise worldwide, the extant literature does not provide a clear picture of the situation in Croatia. To fill this literature gap, the present paper aims to examine the relationship between chatbot advertising and campaign outcomes, and demonstrate the effectiveness of this advertising method.

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KEYWORDS: chatbot, artificial intelligence, Facebook application, communication with clients, digital trend

SAŽETAK

Danas, u vrijeme rastuće prezasićenosti oglašivačkog tržišta, mnoge znanstvene analize ukazuju na nepobitnu činjenicu početka potpuno nove ere komuniciranja. Sukladno navedenom, marketing i oglašavanje danas bilježi značajne promjene. Ono što je prije deset godina bilo dominantno (SEO, SEM, oglašavanje na društvenim mrežama itd.) danas se ubraja u kategoriju tradicionalnih medija. Razvoj tehnologije te pojava i razvoj umjetne inteligencije analizirati će se u radu u kontekstu digitalne transformacije. Drugim riječima, umjetna je inteligencija sa svim svojim mogućnostima promijenila digitalni oglašivački krajolik. Jedan od alata promjene su chatbotovi – automatizirani chat sustavi koji prikupljaju podatke na temelju ponašanja korisnika na internetu i tako postaju moćno oružje oglašivača koji, otvarajući razgovor sa korisnicima, potrošačima na neupadljiv i prirodniji način plasiraju oglase. Kako trend korištenja chatbotova u svijetu raste iz dana u dan, iz dostupnih radova i literature nije jasno vidljivo kakva je situacija na malom hrvatskom oglašivačkom tržištu. Stoga je upravo cilj ovog rada utvrditi povezanost chatbot oglašavanja i rezultata kampanja, a samim time ukazati na učinkovitost ovakvog načina oglašavanja.

KLJUČNE RIJEČI: chatbot, umjetna inteligencija, Facebook aplikacija, razgovor sa klijentom, digitalni trend

1.　　INTRODUCTION

Sterne (2017: 9-10) refers to artificial intelligence (AI) as an umbrella term for various tools and technologies (visual recognition, natural language processing, expert systems, robotics, etc.). The definitions of AI found in the literature suggest the idea that computers take on human traits and behaviour to perform tasks as well (or better) than humans (Harris, 2001: 6; Dobrev, 2004: 2). Given that artificial intelligence now affects nearly all aspects of consumers' lives, it is a must-have for modern-day marketers (Yu, J., 2018: https://martechtoday.com/beyond-ai-hype-ai-now-adoption-rising-210529, accessed on 13 August 2019) Despite being implemented in most companies worldwide, the level of implementation is still quite low (Shahid, M.Z. & Li, G., 2019: 29). Although marketers have shown interest in adopting AI technology soon, due to the mismatch between preparation and execution, only 20% of them have implemented it in their business (Chui, M., 2017: 4). However, once implemented, artificial intelligence rapidly spreads across all aspects of the business, including the field of marketing owing to the development of different software (Shahid, M.Z. & Li, G., 2019: 29). One such software is marketing management support system (MMSS), which allows managers to make decisions and analyse data and information with the help of AI (Wierenga, B., van Bruggen, G.H., and Althuizen, N.A.P., 2008: 561-563). More specifically, Wierenga (2017; 6-7) notes that the major AI applications in the field of marketing today include expert systems, neural networks, and case-based reasoning.

1.1.　EXPERT SYSTEMS

An expert system (ES) is a computer program which, based on algorithms, advanced mathematical models, and heuristics solves problems for a particular problem or task, thereby supporting the decision-making process in marketing (Wierenga, B., 2010: 6; Cross, T. B. 2019:

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https://telecomreseller.com/2019/05/07/artificial-intelligence-marketing-not-all-mad-men-are-math-men-ai-may-replace-them-both/, accessed on 14 August 2019). ES applications can be found in the following marketing areas: market targeting (AMOS), promotion evaluation (PROMOTER), advertising design (ADCAD), strategic planning, market segmentation and media planning (HYMS, TIMES, COMSTRAT), schedule ad spots (LOGIX), marketing budget evaluation (ADVISOR), etc. (Wagner, WP and Zubey, M.L., 2005: 4-5). BRANDFRAME is often mentioned in the literature as an example of an expert system developed specifically for brand management. It defines a brand based on its characteristics, competing brands, retail channels, goals and price. In other words, when new information about a brand is received from market researchers, BRANDFRAME analyses that information and recommends marketing mix instruments (Wierenga, B., 2010:6).

1.2.   NEURAL NETWORKS AND PREDICTIVE MODELLING

Predictive modelling, with its tools - neural networks (NN) and classification and regression trees (CART), is an advanced artificial intelligence-based methodology for the prediction of a customer's future behaviour (Bhattacharyya, S., 2010: 155-157). Applications of these models in marketing are diverse - from customer segmentation, targeting and retention to estimating the lifetime value of a customer (Berry, M.J.A. and Linoff, G.S., 2004: 211). Over the last 20 years, customer relationship management (CRM), as a rapidly growing field of marketing, has become a buzzword in the context of predictive modelling. CRM is a database on individual customer information on socio-economic characteristics, previous interactions, and purchase history. The system uses the information collected to predict the buyer's response to the retailer's new offer or to predict ways of customer retention (Wierenga, B., 2010: 6-7).

1.3.   ANALOGICAL REASONING AND CASE-BASED REASONING (CBR)

Due to the complexity of consumer decision-making, but also the market itself, and the lack of a clear set of variables explaining the relevant phenomena, analogical reasoning, as a decision support tool, provides a fertile ground for connecting marketing with artificial intelligence (Wierenga, B., 2010; 7). Althuizen and Wierenga (2004; 6) note that analogical thinking is "the ability to look at specific situations and somehow pull out abstract patterns that may also be found in superficially different situations" (in Holyoak and Thagard, 1995). Thus, analogical reasoning is a powerful means for learning or creating new knowledge and as such plays an important role in human perception and decision making. Indeed, analogical reasoning as a decision support principle underlies CBR, a system which comprises information collected from previous situations similar or analogous to the target problem (Althuizen, N.A.P., & Wierenga, B., 2004; 8). It is a kind of experiential learning where answers to new problems are sought in previous situations where a similar problem was solved/.

2. CHANGES IN DIGITAL MARKETING DRIVEN BY ARTIFICIAL INTELLIGENCE

Artificial intelligence has become a crucial factor in the new digital age. Many businesses are seeking to integrate its advanced multi-layered tools into their marketing strategies. Artificial intelligence allows things to function without relying on humans. Given that digital marketing (as part of an overall marketing strategy) functions applying the same principle, it has become a fertile ground for even greater implementation and application of artificial intelligence. It is expected that in the coming years the development in artificial intelligence will have far-

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reaching implications on online marketing and that marketers will have to adapt their business practices in order to keep pace with the digital revolution and increase their competitiveness, productiveness and profitability. Artificial intelligence has transformed the digital marketing in that it has improved the quality of content, enabled voice search, use of predictive analytics, use of new technologies in the context of virtual (VR) and augmented reality (AR), and creation and use of chatbots (Avinaash, M. & Jayam, R.R. 2018: 1885-1886; Myers, C., 2019: https://www.digitaldoughnut.com/articles/2019/february/how-will-ai-transform-the-digital-marketing, accessed on 17 August 2019; Murgai, A., 2018: 260-262). All of these changes are briefly discussed in the paper. However, their common characteristic is that they all improve user experience, which is essential for the success of the marketing strategy and customer retention, leads to the purchase of a product or service, and builds brand loyalty.

2.1. EFFECTIVE CREATION OF QUALITY CONTENT

Content marketing plays a crucial role in digitally supported marketing approaches, and the delivery of quality content is closely associated with the latest technological developments (Köse, U., & Sert, S., 2016: 837-838). Thus, it is not surprising that machines and technology have taken on the task of content creation, which, until recently, was in the domain of human intellectual abilities. Content marketing is a process that consists of the preparation, implementation and audit phases. Artificial intelligence can be used in each of them as one of the following techniques: artificial neural networks, fuzzy logic, genetic algorithms, neuro-fuzzy inference systems, expert systems, swarm intelligence-based algorithms, and machine learning techniques (Köse, U. & Sert, S., 2017). Generally speaking, based on data collected by artificial intelligence (e.g. big data and machine learning), marketers can provide customers with more relevant content (Myers, C., 2019: https://www.digitaldoughnut.com/articles/2019/february/how-will-ai-transform-the-digital-marketing, accessed on 17 August 2019; Dimitrieska, S., Stankovska, A., & Efremova, T., 2018: 300-302). A number of algorithms that facilitate the collection of data about targeted audiences can be used to personalise and improve customer interactions. This enables marketers to gain a better understanding of the preferences of potential customers, maintain their attention more effectively, thus increasing the probability of purchase (Muhammad, F., 2017: http://www.curata.com/blog/artificial-intelligence-content-marketing/, accessed on 17 August 2019; Avinaash, M., & Jayam, R., 2018: 1885).

2.2. GROWING IMPLEMENTATION OF VOICE APPLICATIONS

From the perspective of digital marketing, voice search has and will continue to have a profound impact on the customer experience and as such is a new phenomenon that is still evolving (Myers, C., 2019: https://www.digitaldoughnut.com/articles/2019/february/how-will-ai-transform-the-digital-marketing, accessed on 17 August 2019). Opportunities for the future of voice technology are endless, and according to eMarketer research, 40 voice devices are currently being used in the US, and this figure is expected to grow to 67 million by the end of this year (Avinaash, M., and Jayam, R., 2018: 1885). When it comes to voice applications, the so-called "personal virtual assistants" play a central role. They have the ability to understand who the user is, what their preferences are, where they are at the moment; they can also recognise voice, words and sentences and analyse everything the user is saying (Kaličanin, K., et al., 2019: 475-476). As such, they are an ideal means for building a relationship between a brand and potential consumers. Top 4 virtual assistants today are Siri (Apple), Google Now (Google), Alexa (Amazon) and Cortana (Microsoft) (Arrington, L., 2017: https://www.theedigital.com/blog/voice-search-impacts-digital-marketing, accessed on 16

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August 2019). Furthermore, research has shown that voice search has revolutionised search engine optimisation (SEO), mainly because it is more convenient and faster than text search. Moreover, how we phrase and word our search queries is different from the old keyboard typing method, and this has directly affected SEO and marketing practices in the following ways: more mobile and local-based searches, increased use of long-tail keywords, increased use of FAQ page, increased dependence on natural language searches, and maintenance of site responsiveness (Elezaj, R., 2018: https://www.media-marketing.com/en/opinion/to-nativbe-or-not-to-nativbe/, accessed on 16 August 2019). In the future, it can be expected that the advertising industry will also turn to virtual assistants, for voice ad distribution. Given that this has not yet occurred, despite an increase in the volume of voice search queries, it may take a while before voice advertising becomes the standard. Nevertheless, marketers agree that voice advertising may become a key component in overall marketing strategies in the future (Kastrenakes, J., 2017: https://www.theverge.com/2017/4/12/15259400/burger-king-google-home-ad-wikipedia, accessed on 16 August 2019).

2.3. INCREASED USE OF VIRTUAL (VR) AND AUGMENTED REALITY (AR)

The most recent digital marketing innovations, augmented and virtual reality, have been raising numerous controversies lately. Given that both technologies focus not only on a product or service, but also on an entire experience created for the customer, they are seen as a form of experiential marketing, an essential factor in attracting and retaining customers, and they both provide customers with the ability to visualise what they can expect (Bulearca, M., & Tamarjan, D., 2010: 238-241). Both technologies allow for interactive experiences to be created, while traditional forms of advertising have been very much limited in terms of end-user interaction, constraining their effectiveness (Forbes, 2018; https://www.forbes.com/sites/forbesagencycouncil/2018/09/26/11-predictions-for-the-future-of-ar-and-vr-in-marketing-and-advertising/#7323fd7510b1, accessed on 28 August 2019). Although augmented reality and virtual reality are often viewed as one and the same thing, they are different technologies. Augmented reality (AR) uses the existing environment and overlays new information on the top of it, and can be experienced using only a mobile application. (Grubišić, T., 2016: https://www.netokracija.com/virtualna-stvarnost-marketing-degordian-117799, accessed on 28 August 2019). Although it has been around for years, it has not been widely adopted. However, marketers are actively working to develop and further improve this technology in order to keep the attention of existing consumers. Virtual reality (VR) creates an imaginary or real digital world that the user can interact with, wearing some kind of headset, such as a VR helmet or VR glasses (like the Oculus Rift or the HTC Vive) (Gibson, A., 2017: 32-33). This technology provides a rich and advanced medium that is able to deliver high-impact and memorable messages, engage audiences, and provide them with the most realistic experience of a product, service or place yet (Barnes, S.J., 2016: 1-8). While critics point out the high cost as the biggest drawback of this technology, data show that top brands and businesses cannot afford to ignore this growing trend. Specifically, it is predicted that by 2022 the VR industry will have hit about USD 33.90 billion, and the predicted number of sold VR headsets will reach 82 million. Moreover, the number of VR users in 2018 was estimated at 171 million, an impressive increase from 200,000 in 2014 (Bickov, A., 2018; https://arvrjourney.com/vr-marketing-how-to-use-it-virtual-reality-advertising-8d0f04fe6665, accessed on 28 August 2019).

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2.4.   INNOVATION IN THE FORM OF CHATBOT

Business Insider Research (2017: https://www.businessinsider.com/facebook-opens-analytics-developer-tools-for-messenger-bots-2016-11, accessed on 29 August 2019) found that the number and variety of chatbots has increased in recent years. They have not only been generating large revenues (USD 32 billion in 2017) but also reducing costs.

Table 1. Strengths, opportunities, threats and weaknesses for companies using chatbots and consumers

	Strengths & Opportunities	Weaknesses & Threats
For providers/companies	24/7 customer service (anytime/anywhere); New method & types of data collection; High amount of personal user/usage data; Personalisation & automation of communication; Reduction of service & support costs.	Malfunctioning chatbots & unanswered questions; Investments in IT infrastructure & chatbot tools; Investments in analytics architectures; Lack of awareness & acceptance by users; Information security & data protection; Image & reputation risks.
For users/customers	24/7 customer services & support; One-to-one communication on personal device; High convenience & ease of use; Time- & cost-savings; Relevant offers based on user preferences.	Lack of experience & understanding; Biased personalised information; Artificial/non-human conversation; Social isolation & ethical concerns.

Source: Zumstein, D., Hundertmark, S. IADIS International Journal on WWW/Internet Vol. 15, No. 1, pp. 96-109 ISSN: 1645-7641

As a result, they are being increasingly used as an artificial intelligence tool by businesses around the world within their digital marketing strategies (Zumstein, D., & Hundertmark, S., 2017: 97). At a time when the digital technology has permeated all aspects of life and business, chatbots, intelligent computer programs that mimic a natural conversation with the user, are emerging as the future of interactive engagement, allowing consumers to engage with marketers in terms of content consumption, customer service, and increase user experience in general (Myers, C., 2019: https://www.digitaldoughnut.com/articles/2019/february/how-will-ai-transform-the-digital-marketing, accessed on 17 August 2019; Avinaash, M., & Jayam, R., 2018: 1886). The section of the paper that follows provides a detailed insight into the features of this artificial intelligence tool.

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3. MAIN FEATURES OF A CHATBOT AND ITS ROLE IN DIGITAL MARKETING

Conceived as a kind of commercial tactic, a chatbot, as a new communication channel, is the latest innovation in the artificial intelligence technology (Van den Broeck, E., Zarouali, B., & Poels, K., 2019: 150). Chatbots convert a user's query or request into a programming language and use databases to give the answers to these queries. The emergence of chatbots has marked the beginning of a new technological era - that of conversational interfaces (Zarouali, B. et al, 2018: 1).

The main features of chatbots are:

- *Personality traits*: Studies have shown that the way a person expresses himself and the wording a person uses depends on the level of extroversion (Braun, A., 2003: 19). Dominant, extroverted personalities need much more adverbs and adjectives and they speak in the first-person plural more often than introverted persons (Gill. A., Oberlander, J., 2002: 157). Furthermore, most people prefer communication partners with similar personality traits. This is often the case, if people assess their own personality traits as disruptive, unique or special. Using similar personality traits, users can better assess their counterparts, and information has usually been rated as better and more trustworthy (Braun, A 2003: 27). If these research findings are applied to the design of computer programs such as chatbots, the chatbot should tailor its text to the user's personality. If these research results are applied to the design of computer programs like chatbots, a chatbot should adapt its wording to the personality type of a user. Therefore, the chatbot has to find out the user's personality during the conversation using special language codes and then adapt his personality to the user using a specified wording. Another option to solve the personality problem is that a user can choose the personality of the chatbot. Starting or using a chatbot, the chatbot may introduce different personalities and then the user can choose his preferred chatbot personality.

- *The chatbot as a team member*: Human people trust the chatbot more when they perceive it as a team member, rather than a technical device. If bots use partnership-oriented presentations and communicate in a similar manner as their users, information is considered as more credible (Reeves, B. and Nass, C., 1996: 247).

- *Scope of messages*: People expect certain courtesy of the computer or software like a chatbot. That means, users do not expect their answers to be listed in bullet points and they do not want to be burdened with too much information. Ideally, the chatbot should accurately reflect the required information in a polite manner. For this, it is important that the chatbot identifies and knows the returning user over time and learns from previous conversations and search queries.

- *Specialists vs. generalists*: As research shows, users perceive an answer of a specialist as more credible than a generalist's ones. Thus, it is generally recommended that chatbots offer different characters for different topics and chatbots should communicate like experts (Braun 2003). Therefore, natural language output of chatbots should be formulated in a professional and expertise manner with human traits.

- *Gender stereotypes*: Different gender stereotypes are described in psychology and sociology literature. These sex stereotypes can also be considered in computer software like chatbots. For example, in rather technical inquiries, users show much more confidence in a male chatbot than in a female chatbot (Reeves, B. and Nass, C., 1996: 268). In contrast, for service requests in customer support centres or hotlines, customers except rather female supporters. Therefore, chatbots in the service, tourism, transport, fashion and beauty industry may appear and interact like a woman. However, to develop

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gender correct chatbots in future, more research should focus on the influence and user expectations of gender characteristics in Human Computer Interactions (HCI) like chatbots.

- *Credibility*: If chatbots provide wrong or inadequate answers to users or if they repeatedly ask the same questions, they lose credibility. Users will soon break off the communication and they not use the chatbot anymore, if chatbots cannot answer the asked question or solve the user's problem. In addition, users expect the chatbot to learn from previous conversations and chatbot should not ask redundant questions every time.
- *Emotions*: Finally, chatbots are seen as more credible, if they express adequate emotions. Especially, bots should show positive emotions like joy, gentleness and happiness to strengthen the engagement and relationship between the user and the chatbot. In addition, a chatbot should show a minimal level of empathy, behave situational and caring. Ideally, chatbots can do small talk and entertainment. The same applies for the reaction time: It is more credible if a chatbot does not always respond immediately, but also integrates certain pauses as it is natural with human beings.

From the perspective of digital marketing, they allow marketers to interact with consumers, i.e. users of their products on a personal level, which is possible if user profiles are specific.

3.1. DEFINITION AND FUNCTIONING OF A CHATBOT

Although there are various definitions of chatbots in the literature, their common elements are that chatbots are software agents or computer programs, powered by artificial intelligence, that simulate a human conversation using natural language (Wang, Y.F., Petrina, S., 2013: 124; Murgai, A., 2018: 261; AbuShawar, B., Atwell, E., 2015: 625). They have been developed for a number of purposes, including entertainment, provision of specific information, as a website guide, a virtual support agent, etc.). According to the literature, ELIZA and PERRY were the first chatterbots. The former was designed to mimic a psychotherapist and the latter a paranoid patient (Wang, Y.F., & Petrina, S., 2013: 125). Generally, chatbots have quite similar technologies and architectures. Zumstein and Hundertmark (2017:98) provide a fairly detailed description of the technical process of a chatbot, when a mobile user makes a request until the appropriate answer is sent by the chatbot (Figure 1): The process starts with a user's request (1) using a messenger application (Facebook, Slack, WhatsApp, etc.) or an app using text or speech input. The user request is recorded by a so-called Natural Language Parser (2) and is translated into the programming language (3). Following, the conservation engine analyses the question and redirects it to the backend (4). The chatbot then joins the query with the databases to search for an adequate answer (5). Once the appropriate result is retrieved from the backend (6), the conversion engine forwards it to the response picker (7). In the last step, the answer, which is still in the programming language of the chatbot, is translated into the natural language of the user and is sent to the user interface.
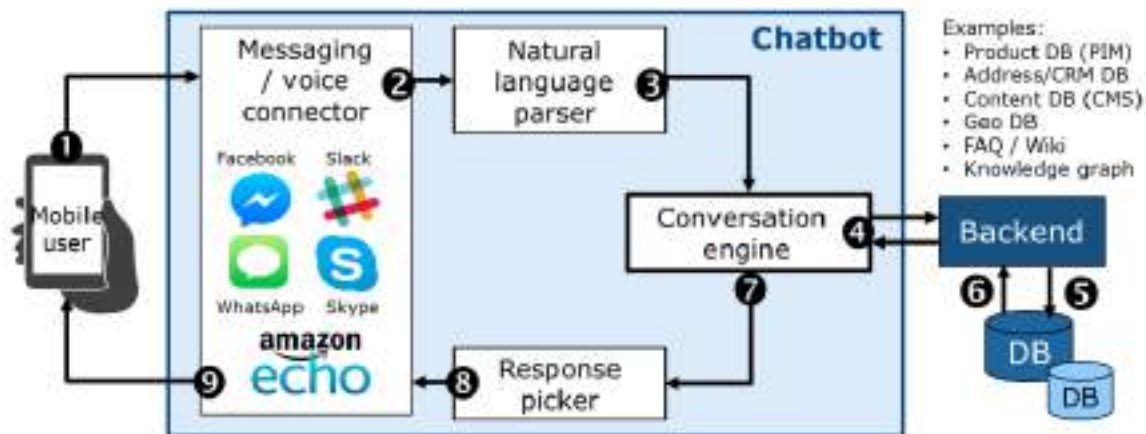
Source: Zumstein, D., Hundertmark, S. IADIS International Journal on WWW/Internet Vol. 15, No. 1, pp. 96-109 ISSN: 1645-7641

3.2. ROLE OF CHATBOTS IN DIGITAL MARKETING

Chatbots are rapidly becoming a major area of interest for marketers who see them as a way to provide personalised customer service, thereby fostering sales (Murgai, A., 2018:261). In other words, the role of chatbots in digital marketing is vital today for businesses that want to remain competitive in an almost fully digitised market. Chatbots can be customised to collect data and do research, enhance website traffic, increase management effectiveness, and improve user experience (Signh, P., 2018: https://digitalmarketing-wiki.com/role-of-chatbots-in-digital-marketing/, accessed on 16 August 2019) as a result of customer perception that an employee (company) is available to them 24/7 and the feeling that they are provided with a service at the right time (Van den Broeck, E., Zarouali B., and Poels, K., 2019: 151). Furthermore, in digital marketing a chatbot can be a great tool for advertising, which, as the literature suggests, is the next step in creating a personalised ad. Recently, Facebook itself has started promoting chatbot advertising, defining it as sponsored messages intended for advertisers who have already established contact with potential customers (Facebook 2018: https://www.facebook.com/business/marketing/messenger, accessed on 28 August 2019)

3.3. BENEFITS AND WEAKNESSES OF CHATBOTS

The use of chatbots in digital marketing strategies has changed the way businesses communicate and transact with customers, resulting in increased customer engagement for most of them. The benefits of this artificial intelligence tool include its 24/7 availability, savings in personnel costs in customer service, the ability to collect and store relevant customer information, and the greatest advantage of all - one-to-one communication (Zumstein, D. and Hundertmark, S., 2017: 101-102; Saunders, AA, 2017: https://www.digitaldoughnut.com/articles/2017/october/top-7-benefits-of-chatbots-for-your-business, accessed on 17 August 2019). However, while the benefits of using a chatbot in digital marketing are numerous, businesses should be aware of its weaknesses as well. Despite the availability of information about digital tools, customers are used to other, more traditional communication channels and this technology is still new to them. Another important topic is data protection. When it comes to registration and payment processes, data protection is crucial (Zumstein, D. & Hundertmark, S., 2017: 103). Finally, chatbot interfaces and infrastructure are extremely complicated and the costs of construction and installation are high. Companies need to update them regularly and remedy any errors or system malfunctions, as they can lead to

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costly disasters (Gomez, A., 2018: https://www.ecommerce-nation.com/chatbots-advantages-and-disadvantages-of-these-tools/, accessed on 17 August 2019). Although the trend of using chatbots has taken hold around the world, this is not the case in Croatia as only a few companies have adopted this tool and implemented it in their marketing strategies.

4. RESEARCH METHODOLOGY

The methodological literature suggests that survey and interview are commonly used methods in quantitative research, while interview and focus group are most commonly used techniques in qualitative research. Interview is often defined as a face-to-face survey, whereas focus group is categorised as a sub-type of interview. There are several interview techniques. Only a structured interview can be viewed as related to survey research, while only an in-depth group interview is related to focus groups. Given the above, it was decided to conduct the research using a structured in-depth interview. Bearing in mind Mejovšek's assertion that a research method is any method that enables the collection of true (objective) data or facts about the phenomenon or phenomena under research (Mejovšek, M., 2005: 23), for the purpose of this paper interview was defined as a separate research method that includes various interviewing techniques with the interview protocol as a measuring instrument. Thus, a standardised interview was used to test the hypotheses wherein marketing experts using chatbots were asked preset questions in a specific order. This interview technique was selected because very few companies in Croatia use chatbots and the questions are complex and require expert knowledge. For the purpose of this paper, the following research goals were defined:
- identify how chatbots are implemented as an artificial intelligence tool and put the way they are used in correlation with marketing activities;
- highlight the advantages and disadvantages of using chatbots depending on the size of the business;
- identify the challenges faced by marketers using chatbots;
- define the impact of chatbot use on the sales volume or cost savings;
- identify the relationship between using chatbots and the success of marketing campaigns.

Thus, the following hypotheses are proposed:

Hypothesis H1: Use of chatbots in advertising contributes to positive campaign outcomes

Hypothesis H2: Use of chatbots in advertising enhances user experience

Table 2. Summary of survey results

	Large enterprises	Medium enterprises	Small enterprises
Percentage of chatbot use as an artificial intelligence tool	10 – 15%	Daily in internal communication	Extremely high
Purpose of chatbot use	For collecting basic information about user queries and resolving issues that they encounter in using products sold by the company.	For internal communication within the company and logistical issues such as automated booking of meeting rooms.	It is used extensively in communication (together with other media and tools). Most commonly it is used for connecting humanitarian

			organisations with donors.
Benefits of chatbots	Faster and more efficient query resolution; lower number of additional questions	Process automation (by the company that uses them) and thus faster and more efficient communication of users with some of the services that the company offers.	They help bring together 30 humanitarian aid organisations and put them in contact with all those who want to donate by answering their question on how, where, and when to donate, and who is in urgent need
Advantages of using chatbots	Quick response to a query and a feeling of continuity in conversation without waiting a long time	Easy and fast access to some services has increased end-user satisfaction; Reduced call centre agent workload.	personalised experience; individualised approach to each user, questions answered in real time
Disadvantages of using chatbots	Language barrier (not adapted to the Croatian language); negative user reaction when they realise that it is an automated response		Lack of public awareness about chatbots; Expensive maintenance; inability to check chatbot usage percentage
Increase of sales volume	Yes	Reduced number of calls to call centres leads to more efficient sales.	No insight into the impacts of chatbots
The impact of chatbots on savings	Yes	No	No insight into the impacts of chatbots
Implementation of chatbots as an artificial intelligence tool and their impact on marketing	Minor benefits; it is necessary to develop chatbots as a product	Chatbot is as a communication and perhaps even a sales tool is useful primarily for interaction in the later stages of the sales process	Implementation in the core business

Based on the survey results, it may be concluded that chatbots are being increasingly used in the Croatian market. This AI powered tool is useful for providing information as well as collecting basic information about user queries and solving problems that they encounter in using their products. Due to the fact that a chatbot is a new artificial intelligence tool and that there is lack of extensive research into its advantages and disadvantages, the qualitative research conducted has some limitations. Given that the number of companies using chatbots is relatively

small and that, to our knowledge, no research addressing this issue has been conducted among Croatian companies, there are no reference data against which to compare the data collected through this survey. The respondents, i.e. interviewed marketing experts have confirmed that chatbots should be used sensibly, taking into account how they affect user experience and that predefined, fast and best solutions should be used. An additional limitation of this study is that the survey does not provide insight into user experience. The present paper identifies the main distinctive elements of the chatbot concept in contemporary business.

5. CONCLUSION

Although businesses worldwide are familiar with this advanced artificial intelligence tool and are increasingly using it in their marketing strategies, chatbot use is not yet common practice in Croatia. Companies that use the chatbot system in advertising or any other marketing segment are scarce. Chatbots are found to be most commonly used as virtual assistant in the travel industry, financial services, and customer support services regardless of the activity of the company. In other words, it is used more as a sales tool, which is more useful in the later stages of the sales process when the potential customer is already familiar with a product or service.
The most frequent reason for not using this tool is the general unwillingness of our society to embrace digitalisation and the changes it brings. More specifically, the fact that users are not familiar with this technology and that often do not realise they are talking to a robot, may result in an inadequate reaction to automated responses. Businesses face a shortage of trained agents and administrators who could provide support to the entire system and provide a timely response to the queries to which the chatbot does not have an automated response.

However, although the survey conducted did not identify any businesses that use chatbots in advertising, it did confirm that they are a very useful tool in marketing strategies. Companies that have adopted them in their business have seen the benefits in the form of enhanced customer experience mainly due to faster and more efficient resolution of various queries in real time, and individualised approach to each user, which increase the likelihood of customer purchase.

Given the trends brought about by the digital revolution, which have and will continue to change the business and marketing communication with customers, the future of chatbots in Croatia is bright. It is expected that they will be used not only in sales and customer support but also in advertising, where they will help create personalised ads, thus improving the interaction with prospects.

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