

## THE CONCEPT OF USING ARTIFICIAL INTELLIGENCE IN THE PROCESS OF BUILDING A MARKETING COMMUNICATION STRATEGY (AVATAR MODEL)

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**Purpose:** The presented research purpose (and thus the article's creation) result from considerations of the topicality of the traditional channels of contact with clients proposed in the literature. Furthermore, due to the dynamics of changes in the environment and the highly intensive scientific and technological development, it was decided to investigate which channels of marketing information are popular and used by young people (hence the proposed age range of the respondents).

**Design/methodology/approach:** In the research process, a classic questionnaire was used, which was presented to the respondents in an innovative, modern form. Avatar invited the participants to participate in the study, asking applicants to provide their date of birth. After verifying that each person actually exists and meets the assumed criteria of the research group, AVATAR presented a questionnaire, which included questions about the assessment of classic and modern methods of marketing communication (as described later in the publication). The thematic scope of the article covers the analysis of trends in the field of marketing communication among young people and includes the assessment of modern, creative and innovative methods of influencing a potential customer. In this context, it should be emphasised that the choice of the respondents is not accidental - they are young people, and therefore their opinions and assessments will be a valuable source of information for modern enterprises' marketing and commercial departments.

**Findings:** Due to time constraints, the research concerned selected tools and methods of marketing communication, evaluating a set of classic forms of communication, which were extended to more modern methods (internet, social media) and innovative tools. Due to the positive appraisals of the project, it should be assumed that other cities and municipalities in Poland should be equipped with the AVATAR tool, which in turn will allow for the recommendation of further research on a group of respondents in the same age group, but coming from different regions of the country (geographically) and various centers (rural, urban, agglomeration).

**Originality/value:** During the research, it was found that among young people, the traditional channels of marketing information are not only losing their importance but are even going unnoticed. Among the proposed set of eleven classic forms of marketing, almost all were rejected, except for the so-called word-of-mouth marketing. It should be emphasised, however, that the respondents stated that word-of-mouth marketing is evolving for the benefit of the internet (opinions about the product, company, or service) and messages transmitted via social

media. Therefore, the next part of the study was devoted to analysing and evaluating the innovative avatar tool as a potential carrier of marketing information and a tool for transmitting interactive advertising messages. The research also established that all innovations are positively perceived by respondents aged 20-29, regardless of the city they come from (in this case, the innovation was an avatar).

**Keywords:** avatar, marketing, communication, innovation, client.

**Category of the paper:** Research paper.

## Introduction

The publication entitled "The concept of using artificial intelligence in the process of building a marketing communication strategy (avatar model)" presents the possibilities of an interactive avatar tool in the field of shaping relationships with potential customers, treated as an essential and innovative element in building a company's marketing strategy. The study will present the results of research carried out as part of an EU-funded project on the possibility of using a modern and interactive avatar to facilitate contact with a potential customer. It is worth noting that the research work and device tests were carried out in two local government units in Poland - positive test results preceded by modifications to the original tool provide a basis for formulating a thesis that the tested avatar model can be implemented both in enterprises and other institutions serving customers. This thesis is confirmed by the current global trends in the development of both modern marketing and other areas of social life, development based on virtualization, digitization, augmented reality or assumptions of industry 4.0. Moreover, it suddenly turned out that during the pandemic, the avatar tool provided comprehensive customer service without needing to contact employees, which is its added-value (albeit unintended).

Considering the avatar tool's specificity, we decided to use it to research changes in marketing communication channels.

The publication's main aim is to show how young people (age group 21-29 years old) perceive traditional marketing communication channels. Based on the main goal, two specific goals have been defined:

1. The first detailed objective: is to determine, based on the conducted research, the trends in the field of marketing communication.
2. Second detailed objective: determine how the respondents evaluate the innovative avatar tool using the device as a modern medium for conveying informational and advertising messages.

The goals presented above obligated the author to define two working hypotheses, which were analyzed in the course of empirical research:

H1: It should be assumed that traditional marketing information channels do not fulfil the function assigned to them among young people.

H2: It should be assumed that young people are departing from traditional forms of communication in favour of innovative, modern methods of transmitting (exchanging) information.

Such hypotheses were verified during our empirical work, and the research conclusions are presented in the final part of the article.

## Methods

The method of a scientific experiment was used in the first stage of empirical. The scientific experiment was to build an avatar tool and start testing it. During the tests lasting 2 years, the avatar model was actively modified in order to discover the cause and effect relationships and interactions between the avatar tool and the applicant. The use of the scientific experiment method was due to the fact that the research involved a repeated phenomenon (an avatar service for the clients).

The four phases were distinguished in the research process:

1. The first phase: isolating the phenomenon that is to be the subject of research - here the possibility of using the avatar tool for the process of interactive service of applicants.
2. The second phase: determining the conditions of a given phenomenon - here, defining the catalog of matters that can be dealt with by the device.
3. The third phase: it was to cause changes to the identified conditions of the phenomenon, which in this particular case consisted in extending the catalog of cases and increasing the functionality of the solution (e.g. adding a sign language).
4. Phase four - identification of the necessity to introduce changes and modification of the system.

The second stage of the research work was to prepare the research using the questionnaire method. In the questionnaire, in accordance with the methodology of its preparation, a set of questions addressed to selected groups of respondents was used. The aim of the survey was to find out the answers to the questions related to the acceptability of traditional forms of marketing message. Importantly, the survey was carried out with the use of papers carried out in a scientific experiment - the survey was carried out by the avatar tool.

## **Avatar as a modern marketing communication tool**

The idea of creating an avatar tool appeared when the needs of JST customers (applicants) were defined. As part of developing the solution concept, problems in the process of customer service in the management of public services were defined based on the available literature (Maśloch, 2021). As indicated by J. Trischler and D. Scott, the process of public service management focuses on meeting the following requirements (Trischler, Scott, 2016):

- customer orientation, who ultimately evaluates the quality of the service provided,
- continuous improvement, broadening knowledge, innovation in solving problems, using the opportunities offered by the employees of the organization,
- development and commitment of employees, which is associated with an organizational culture based on trust and the transfer of full competencies to employees,
- management based on processes and facts, consisting in the effective use of resources, obtaining the desired results, managing information that should be true, complete, reliable and professional,
- leadership and consistency of goals. Leaders at all levels of a public organization are responsible for its development, promoting its values, its mission and vision,
- partnership development. Mutually beneficial relations between partners result in full integration in creating knowledge, implementation of plans and public goals, using generally accepted rules of conduct,
- public responsibility, ethical approach and behavior of employees, meeting the expectations of customers, employers and society,
- result orientation, where excellence depends on the ability to balance and satisfy the interests of groups, people responsible for the functioning of a public organization.

The customer service process consists of many interrelated activities that determine customer satisfaction when purchasing a product (service). The last step of the process usually begins with an order and ends with the delivery of the product to the customer (Turban, Outland, King, Lee, Liang, Turban, 2018).

The psychological aspect plays an important role in customer service (applicant), especially among the elderly. It is worth emphasizing that psychological needs are an area for most customer service employees in LGUs, not pursued and, paradoxically, the most important (Bartels, Turnbull, 2020). Therefore, it becomes necessary to use methods of supporting customer service employees in situations that pose the greatest challenges by looking for answers to several questions:

- Why there are misunderstandings, difficult, often conflicting situations in dealing with clients?
- Why is the client still dissatisfied with the service despite meeting his substantive needs?
- Why the adopted argumentation does not bring the desired effect, and what are the clients' motives?

Based on our observations and the obtained answers to the questions mentioned above, a standard implementation model. The activities described above constituted preparatory activities for conducting a pilot survey in 2020, which resulted from the implementation of international research and a scientific project entitled An innovative model of assistance, an avatar of an elderly caregiver, co-financed by the EU.

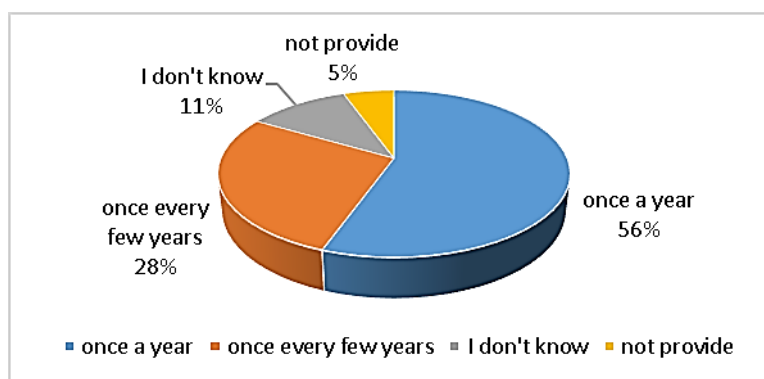
The survey questionnaire consisted of a main part consisting of 23 questions and a measure with four questions. The main issues included in the survey concerned two main research areas:

- the first is devoted to the assessment of respondents in the field of functioning and service of petitioners (clients) in public administration offices,
- the second, which focused on the expectations and requirements of applicants (clients) in the field of service in public administration offices.

The research aimed to verify the correctness (elimination of defects) of the adopted research procedure, the correct selection of people and the use of the research tool (questionnaire). This study was not used to verify hypotheses; its purpose was to provide information enabling the construction of a prototype of the avatar tool with the broadest possible functionalities, which were determined after analyzing the obtained data as a result of an empirical study.

The study was qualitative (questionnaire test) and was conducted as a meeting of people from a deliberately selected sample with the number  $N = 40$ . it is understandable whether the questionnaire finally contains a complete set of answers), supplemented with a cognitive interview (suggestions for changes/supplementing the scope and type of questions, analysis of the target group of respondents).

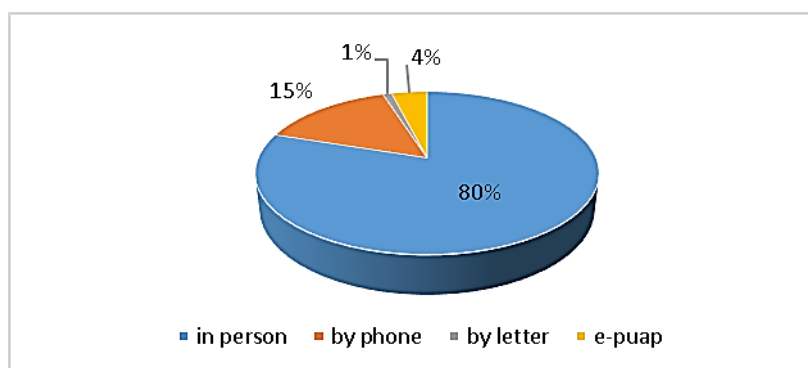
Statistical analysis showed that all participants of the study used the services of public administration offices, but most (85%) used the services of the city or commune, while the rest - used the services of the County Office. During the research, it turned out that the respondents, in most cases, deal with official matters once a year (50%) or once every few years (25%), and 10% of the respondents could not precisely define the frequency of visits to the office, and 5% of the respondents did not provide any responses (the above data is presented in Figure 1).



**Figure 1.** Structure of answers to the question: *How often do you deal with official matters in local government units?*

Source: Own elaboration based on empirical research.

In the next part of the survey, participants were asked about the most frequent contact method with local government units - two responses could be selected in the survey. The respondents indicated that they most frequently contacted themselves in person 80%, by phone 15%, by e-puap 4 % and by letter 1%. There was no indication of electronic contact via the e-PUAP platform. The structure of the answer to this question is presented in Figure 2.



**Figure 2.** Structure of responses to the question about *how to handle matters in local government unit?*

Source: Own elaboration based on empirical research.

It should be emphasized that this publication presents only a general introduction to the research subject and indicates the structure of responses to the two most important questions from the article's point of view included in the survey. Concept avatar devices were installed for testing in November 2020 in Przysucha and Sulejów. The purpose of the testing program, which lasted for six months, was to identify significant changes in the software and the scope of matters handled by the Avatar in relation to its original version.

Based on the analysis of matters handled by the applicants and based on continuous interviews with avatar users, the most important advantages of the avatar device should be indicated:

- improving the quality of customer service (applicants),
- analysis of the number and types of cases handled by obtaining electronic feedback,
- increasing the safety of residents through the possibility of electronic settlement of an increasing number of matters,
- efficient and quick information transfer to applicants,
- verification and control of the state of implementation of official matters,
- availability, without time limits.

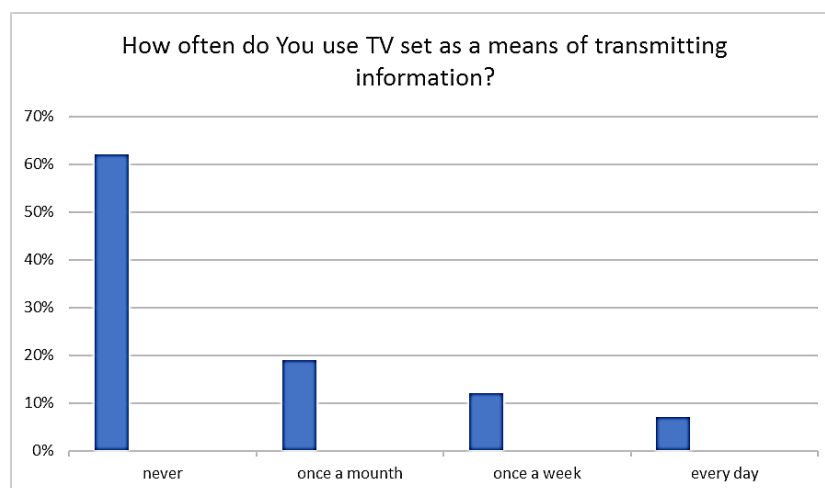
Following the assumptions of the project, it was assumed that the updating changes would be introduced once a week - a team monitoring the actual needs of applicants in this regard has been appointed in each local government unit. Research in this area has shown that the device's possibilities are almost unlimited. Therefore the focus was on observing the number of people using the Avatar as a device through which official matters are dealt with and information on the current problems of local government units. This indicator is the basis for the research team to determine the possibility of using an avatar as a modern marketing tool, facilitating an easy, fast and, above all, always accessible way of contacting an institution, local government unit or enterprise.

### **Criticism of traditional forms of marketing communication**

Traditionally, as mentioned in the literature, forms of marketing communication in the realities of the 21st century do not fulfil their original functions - the influence of the Internet and social media on consumer decisions can be seen more and more often. This is where most of the most up-to-date and opinion-forming information comes from, which helps to make the right consumer (and other) decisions. In order to assess the importance of individual forms of information exchange, a survey was carried out among the group of respondents aged 21-29 from January to June 2022. The research was carried out based on an electronic questionnaire, which was available through the avatar devices, tested in local government units, i.e. in the Sulejówek City Hall and the Przysuski County Council. The voluntary study involved subjects from the above offices that met the age criteria. The subjects were verified by asking Avatar to provide their date of birth - these data were verified in the databases of the relevant office. After positive verification, Avatar invited people to fill in a special questionnaire (in electronic format), which was then subjected to appropriate system analysis. As a result of the research procedure, responses were obtained from 424 people who were asked to indicate the forms of marketing communication that they used most often (and why). Therefore, the respondents had the opportunity to evaluate the most frequently used forms of marketing communication from among the following (Kotler, 2022):

- TV,
- radio,
- press,
- advertising banners - wall advertisements,
- leaflets,
- e-mailing campaigns,
- telephone marketing,
- word of mouth marketing,
- fairs, exhibitions,
- sponsorship,
- mobile visual advertising.

Based on the analysis of the answers provided, it should be stated that the traditional (classical) media are losing their importance. The above statement is reflected in the data presented in Figure 3, which illustrates the structure of the answer to the question about the use of television to transmit information.



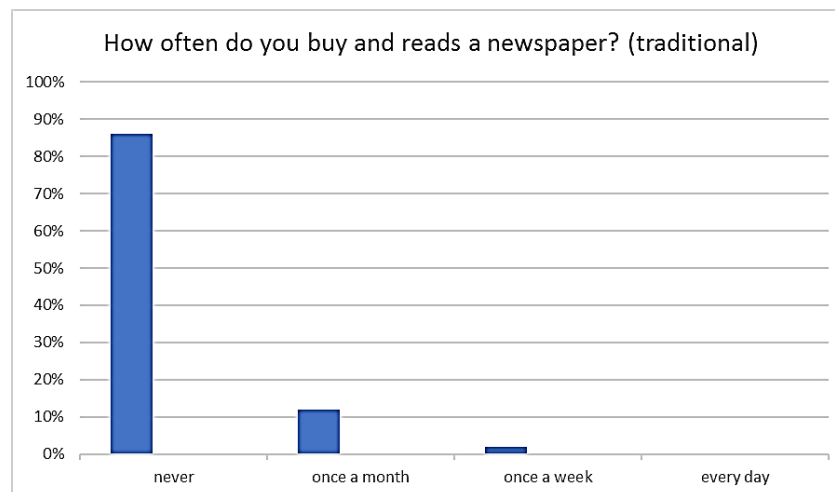
**Figure 3.** Structure of the answer to the question: *How often do you use television as a means of transmitting information?*

Source: own study based on survey research.

According to the data presented, 62% of respondents declare that they do not watch TV at all, watch it occasionally (once a month - 19%) or watch it once a week (12%). The above results suggest that the role of television in providing information and marketing communication is becoming marginal among the surveyed people. Moreover, as the research shows, most respondents do not even declare the will to have a TV set and traditional television.

The situation is very similar concerning the press. Contradictory information on the same event in different newspapers is widespread. Catchy and, unfortunately, manipulated article titles are used to attract as many readers as possible. The respondents' responses to the importance of the press in the marketing message are shown in Figure 4.





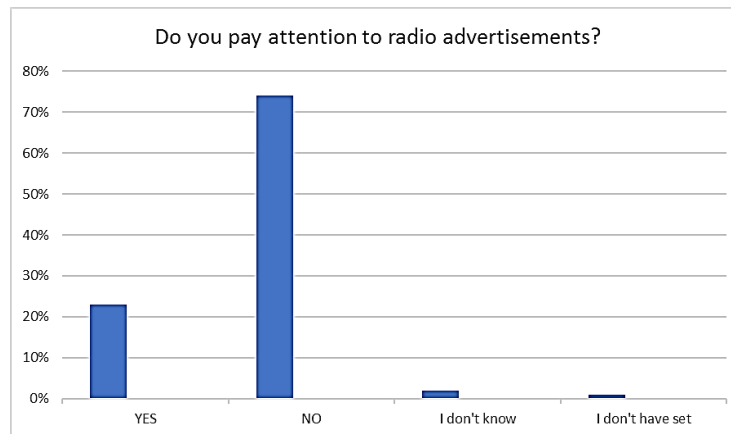
**Figure 4.** The importance of the traditional press in the marketing message - answers to the question: *How often do you buy and read a paper-based newspaper?*

Source: own study based on survey research.

As a result of the structure of answers to such a question, as many as 86% of the respondents indicated no interest in this form of communication. Another 12% declared using the press once a month, which practically confirms the decline of this form of communication. It should be noted that at the turn of the last few years, an increase in demand for newspapers published in electronic form has been observed. According to M. Thompson, boss of The New York Times, this newspaper will cease to be published in paper form within the next 20 years (Sherman,2020).

In turn, the data presented by Empik and the TaniaKsiążka.pl portal in 2020 saw an increase in e-book sales by as much as 20%. This report confirms the results of our empirical research, based on which it can be clearly stated that traditional editions of the paper press are a marginal way of communicating marketing messages with a downward trend in demand for the press, which is confirmed by the statistics on changes in the sales volumes of newspapers traditional, issued in paper form.

Another, so far popular medium that has been noticed in marketing activities is radio. In the survey, the question was not about listening to a radio message but about the degree of interest, understanding and remembering marketing and advertising messages. The answers to the question concerning the indicated problems are presented in Figure 5.

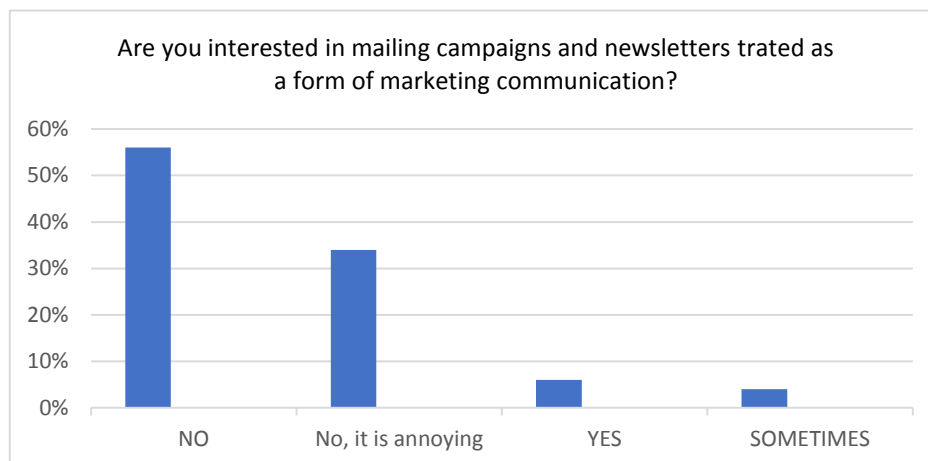


**Figure 5.** Structure of the answer to the question: *Do you pay attention to radio advertisements?*

Source: own study based on survey research.

It is worth emphasizing that in this case, not only the structure of the responses obtained is important (74% of the respondents practically do not pay attention to the content transmitted via the radio receiver), but also the commentary on them. Complementing their responses, the respondents claimed that the radio receiver was turned on (e.g. while driving a car), but focusing on other activities allowed for the perception of advertising messages conveyed through the medium in question only to a limited extent. The respondents also pay attention to the fact that even if they listen to a selected radio station, e.g. while performing other activities, the frequency of broadcasting advertising messages is so high that it has the opposite effect of discouraging the company or product.

Another traditional form of information transfer is mailing campaigns and newsletters. Figure 6 shows the answers to the question regarding the respondents' interest in mailing campaigns and newsletters.



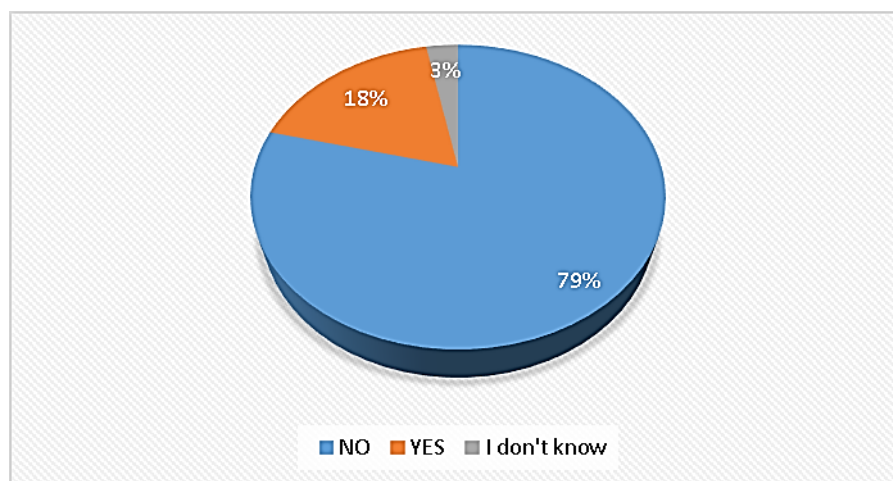
**Figure 6.** Structure of answers to the question: *Are you interested in mailing campaigns and newsletters as a marketing communication form?*

Source: own study based on survey research.

According to the conducted analyses, mailing campaigns or newsletters, until recently indicated as an exciting and effective marketing tool, do not fulfil any previously assigned functions.

Similar conclusions were drawn by the research team of First Orion Corporation, which proved that in 2020 as many as 90% of e-mail users would most likely block spam messages permanently (FirstOrion,2020). The results obtained by First Orion Corporation confirm the answers obtained in the presented results of its empirical research. It is also worth noting that this form of marketing communication has lost its importance due to the excessive number of messages received from various sources and the fear of cyberattacks.

Another issue of interest to the authors was the receipt of marketing and advertising messages placed on banners, posters and leaflets. The distribution of responses to the indicated issues is presented in Figure 7.



**Figure 7.** Structure of answers to the question: *Do you pay attention to marketing messages (advertisements) on banners, posters, and leaflets?*

Source: own study based on survey research.

When analyzing this thread of answers included in the questionnaire, one should refer to the limited possibilities of human perception. Furthermore, precisely this limitation makes potential customers unable to remember and even pay attention to the marketing message. This is due to the lack of regulations in this respect, i.e. regulations concerning the rules for placing advertisements along the main routes of cities. Unfortunately, too many advertisements have the effects described above, disqualifying that marketing message

Other popular forms of marketing communication were fairs and exhibitions - unfortunately, in the face of the pandemic, this form of communication practically ceased to exist. Moreover, according to the authors, one should not think that fairs and exhibitions will again become part of the canon of effective marketing activities after the pandemic.

The situation is slightly different in the case of the so-called word-of-mouth marketing. This form of communication is still important in services which, due to their immateriality, are subject to specific marketing activities. According to the analysis of the results of the conducted

research, the role of word of mouth marketing, understood as a traditional form of information transmission, is also decreasing, but it is being replaced by such tools as the Internet and social media. As confirmed by the respondents, they more often reach for advice on the forum of social networking sites - it is easy to notice how significant the opinion of Internet users is when it comes to assessing products or services and how this influences the consumer decisions made.

The analysis of the survey results shows that the traditional forms of communication proposed by marketing are not very attractive to people under 29. Moreover, the respondents practically do not use them in everyday communication and ignore them, e.g. advertising campaigns posted there. Of the proposed forms of information transmission, virtually all, except for social media and the Internet, have been rejected. In connection with the above, other, even more, innovative solutions for mutual communication and supporting customer service should be proposed. This tool is an avatar with elements of artificial intelligence.

## Summary



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The empirical research and avatar concept presented in the publication, the implementation of further research and development works, the preparation and testing of prototypes and the development of the final version of the tool were carried out as part of a project financed by the European Union entitled *An innovative model of assistance, an avatar of an elderly caregiver*, contract number: POWR.04.03.00-IP.07-00-006 / 18, coordinated by the Academy of War Art, in partnership with the Częstochowa University of Technology, Przysuski County Council, Sulejówek City Hall and a foreign partner, an Education & Information Technology company from Cyprus.

As a result of the analysis presented in the first part of the publication, traditional forms of marketing communication are not and will certainly not fulfil the role assigned to them in the literature. As previously mentioned, social media and the Internet dominate among young people. Due to the lack of possibility to develop traditional forms of communication, an avatar tool was designed, which is a combination of a digital form of communication with elements of interaction with the client (applicant), interactions in the form of, among others, opportunities to chat with a virtual person. It should also be emphasized that the avatar device has been subjected to a series of tests to analyze its possibilities, introducing modifications in the scope of the cases carried out and assessing applicants' interest in the device. What is more, the Avatar has unintentionally become an excellent communication tool in the time of the COVID-19

pandemic; regarding how it helped with several matters of local government and dealt with them without contacting an office employee.

As mentioned earlier, based on the research and analyses, the avatar device works well in communication between the applicant and the office. Therefore, after the completion of the project and the introduction of modifications resulting from adapting the device software to the needs of specific institutions, it should be assumed that it will be a solution recommended as a completely new, innovative form of marketing communication.

In connection with the research procedure and the results obtained, it should be stated that the hypothesis concerning the departure of young people from classic forms of marketing communication has been verified positively. It is similar in the case of the second hypothesis - here, the respondents opted for modern means of marketing communication.

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