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IMPACT OF DIGITAL MARKETING ON CONSUMER BEHAVIOUR

ABSTRACT: The aim of this research was to examine the impact of digital marketing on consumer behaviour. Digital marketing is a key factor in shaping and directing consumer behaviour. Making decisions regarding the purchase of products or services has become a complex issue under the influence of digital technologies that allow companies to communicate directly with their target audience through various on-line platforms, such as social networks, e-mail marketing and Internet search. The survey was conducted on a sample of 151 respondents from Serbia via an online survey. Most respondents were female (72.8%), with an age range of 18 to 64 and an average age of approximately 32. Data were analysed using descriptive statistics and the Pearson bivariate correlation method. In order to compare the sexes according to the investigated variables, we used the student's t-test for independent samples, while the differences between the respondents with different levels of education were examined through ANOVA analysis. No statistical significance was found between the impact of digital marketing and consumer behaviour.

KEYWORDS: digital marketing, consumer behaviour, marketing research, Serbia.

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1. Introduction

Marketing has gone through three stages in its development: production orientation stage, consumer orientation stage, and the human-centric orientation stage. The current stage in marketing development is digital marketing. Digital marketing has emerged due to advances in technology and the impact of technological changes on consumers. Technological changes have been present for two decades, but only in the last few years have they begun to create a collective impact, especially during the Covid-19 pandemic, and thus influence marketing practices around the world. This stage of marketing was dubbed Marketing 4.0 by the leading marketing theorist Koetler in his book *Marketing 4.0: Moving from Traditional to Digital* (Koetler, Kartajaya, & Setiawan, 2017), which would be the basis of marketing theory and practice in the years to come.

In the digital age, digital marketing is becoming ubiquitous and in demand from consumers, and thus crucial for the success of any organization. With the development of the Internet and technology, digital channels are becoming the primary means of communication and interaction with consumers. Digital marketing is a dynamic and complex field that requires a deep understanding of consumers, constant learning and adaptation. Through a comprehensive approach to research and analysis, companies can achieve successful results and achieve their business goals in an ever-changing digital environment.

For this reason, studying the impact of digital marketing on consumer behaviour becomes necessary in order to better understand their needs and preferences. Data analysis of the online activities of consumers becomes crucial for creating targeted marketing strategies.

The research topic of this paper is to examine the existence of a connection between the influence of digital marketing and consumer behaviour. We will investigate in more detail the behavioural, demographic, and geographic characteristics of consumers in the digital environment, to gain a deeper understanding of their preferences and hab-

its. Our intention was to provide more concrete conclusions and precise recommendations to effectively implement marketing strategies and achieve the desired goals in a dynamic digital environment. Through a systematic approach and comprehensive analysis of these factors, we provide an approach for building a solid foundation for successful digital marketing.

The research objective is to determine whether there is a statistically significant relationship between the influence of digital marketing and consumer behaviour on a relevant sample, whether there is a statistically significant relationship between the influence of digital marketing and consumer behaviour on a female sample, and whether there is a statistically significant relationship between the impact of digital marketing and consumer behaviour on a male sample.

The results of this study can be significant for a better understanding of consumer behaviour in the digital environment and for examining gender differences with regard to the impact of digital marketing and on consumers buying products and services online.

The paper is divided into several parts. In the second part, we will discuss the aspects of digital marketing and the specifics of its development, then we will explain the research method used and the data obtained from the survey research. Finally, we will present the results and conclusions.

2. Digital Marketing and Consumers

Digital marketing is not the opposite traditional marketing; it is a complementary element conditioned by technological development and consumer changes in the direction of greater online demand for products and services. In digital marketing, marketers should apply the same basic principles (Njegomir, 2020). For example, they should look for opportunities to satisfy consumers by delivering value from the consumer's point of view, in a profitable way for the company. There are certainly differences in the mentioned elements and, according to

Koetler, especially in communication (Koetler, Kartajaya, & Setiawan, 2017). In traditional marketing, communication is one-way, while in digital marketing, communication is two-way. If the communication is not two-way, neither the marketing nor the company will be successful in digital marketing.

Digital marketing has the possibility of global influence, the possibility of constant advertising – 24/7, as well as the advantage of mass customization of products and services for consumers. Using numerous tools, such as a website, online sales, presence on social networks, using techniques such as search optimization, pay-per-click, e-mail marketing, influencer marketing, video marketing, mobile marketing, content marketing and other techniques and strategies online presence, organizations can create deeper connections with their target market segment, provide relevant and engaging content, and optimize their online visibility. This dynamic digital marketing landscape requires constant learning and adaptation to deliver successful results and maintain a competitive edge.

Search engine optimization, paid search and pay-per-click are key to increasing the visibility and availability of products and services through internet search engines. These techniques allow businesses to appear at the top of search results, making it more likely that consumers will visit their website and make a purchase. Search engine optimization is the process of optimizing a website in order to rank it better on internet search engines, thus increasing the amount of free, i.e. organic traffic to one's website (Dimitrijević & Adamović, 2023, p. 54).

Paid search and pay-per-click allow faster access to targeted audiences through paid advertising campaigns. One of the most used pay per click is Google Ads. Google Ads allows companies to pay for the best slots on Google search results pages. In addition to Google Ads, paid search and pay-per-click channels are also Facebook Ads, Instagram Ads, Twitter Ads and sponsored LinkedIn messages (Dimitrijević & Adamović, 2023, p. 55). A combination of these techniques often results in increased website traffic and thus potentially higher conversions and revenue.

E-mail marketing is a simple and effective way of communicating with consumers via e-mail. E-mail communication is one of the fastest and easiest ways to reach clients and future users – leads (Dimitrijević & Adamović, 2023, p. 55). By sending personalized messages, companies can maintain regular contact with their customers, inform them about new products and promotions, and encourage them to act. This marketing channel allows companies to directly reach their target audience and provide relevant information that can improve the customer experience. Also, e-mail marketing is measurable, which means that companies can monitor the performance of their campaigns and optimize them to achieve better results. In the world of digital marketing, email marketing remains an important tool for building marketing relationships with clients and achieving business goals.

Social media has become an indispensable part of people's daily lives. Through social networks, companies can interactively communicate with their target group, build a brand, and create consumer loyalty. This digital space allows companies to regularly share relevant content, product, or service information, and receive direct feedback. Also, social media provides an opportunity to build a community around a brand, which can result in more engaged and loyal consumers. Through strategies such as influencer marketing and paid social media advertising, companies can expand their reach and attract new potential customers. Opening a Facebook page has become a business requirement for many companies (Naylor, Lamberton, & West, 2012). Since the mass adoption of social networks is relatively new, marketers are still learning ways to use them adequately to influence large audiences (Lee & Bell, 2013). This is an area that will continue to be essential to successful digital marketing.

Influencers and video marketing are gaining more and more importance in digital marketing. Influencers play a key role in shaping consumer opinion, while video content has a strong impact on their purchasing decisions. By collaborating with influencers, who have the right target audience, companies can reach potential clients in an authentic

way that is perceived as a recommendation from a trusted person. Video marketing, on the other hand, provides a dynamic way to present products or services, allowing consumers to become more familiar with the offer. Video content, such as tutorials, product reviews or brand stories, can better engage the audience and improve their connection with the brand. With the increasing number of platforms supporting video content, this segment of digital marketing is expected to continue to grow and evolve.

Mobile marketing is becoming an increasingly important form of interactive marketing in which entrepreneurs can use: 1) text messages, 2) mobile applications and 3) advertisements to connect with consumers through their “smart” mobile phones and tablets (Njegomir, Pejano-*vić*, & Keković 2017, p. 66). Ads and messages, which are adapted to mobile devices, allow companies to directly reach their target group at any time. Mobile devices have become a part of everyday life for many people, which means that companies need to be present on these devices in order to maintain a competitive advantage and thus business success. Mobile marketing encompasses a variety of strategies, including SMS marketing, marketing through mobile apps such as Viber, mobile advertising, and optimizing websites for mobile devices.

The digital environment brings significant changes in the way consumers make purchasing decisions, i.e., communicate with companies. In the traditional environment, information was limited and access to products was usually locally restricted. In contrast, the digital environment allows consumers access to unlimited information and products in real time. This means consumers can research products, read reviews, compare prices, and make purchases without leaving their homes. In addition, the digital environment allows them to access products from different parts of the world, which increases market choice and competition.

The increased importance of digital marketing emerged due to changes among consumers in the direction of striving for two-way communications, i.e., striving to create dynamic networks with companies

instead of focusing on the consumer as a buyer of mass-produced products. Consumers demand that marketing inspire rather than persuade, that there is a two-way flow of value instead of a one-way flow, and that there is an economy of consumer value instead of an economy of scale. Changes in consumers occur thanks to the following new possibilities (Koetler & Keller, 2017, pp. 16–17):

- Consumers can use the Internet as a powerful aid for finding information and making purchases. Consumers can compare prices and product features, read user reviews and order goods online from anywhere in the world 24 hours a day, seven days a week.
- Consumers can browse, interact, and shop on the go. Consumers are increasingly using “smart” phones and tablet devices in their daily lives. One study showed that most owners of these phones in Europe use the phone to research and buy products (Smartphones Shape Habits in Europe, 2022),
- Consumers can use social networks to convey their opinions and show loyalty,
- Consumers can actively communicate with companies. By signing up for mailing lists, consumers can receive marketing and sales materials, information about discounts, coupons, and other special offers.
- Consumers can refuse marketing activities they find inappropriate. Consumers can block online messages, skip ad blocks with digital video recorders, and avoid marketing incentives by mail or phone.

Personalization is another key feature of digital marketing. Tracking technologies allow companies to monitor users’ online activities and provide them with personalized advertisements and marketing campaigns, as well as to better understand consumer needs and preferences, thus increasing the effectiveness of marketing efforts.

In essence, the digital environment is bringing about changes in the way consumers communicate, search, and buy products and services. Companies that manage to properly understand this environment and adapt their marketing strategies have a greater chance of success in attracting and retaining digital consumers.

3. Research Methodology and Data

We used an online survey consisting of 14 items via Google Forms as a key method of data collection. The research was conducted during 2023.

The first three items focused on demographic information (respondents' gender, education, and age). This information is crucial for gaining deeper insight into the consumer profile and identifying potential variations in responses.

The questionnaire consisted of 11 statements that respondents rated using a scale from "Strongly disagree" to "Strongly agree". These statements focused on aspects of consumer behaviour, providing insight into their attitudes and preferences during the purchase decision-making process. Respondents were informed about the anonymity of their answers.

A total of 151 respondents participated in the online survey. This sample provides diversity in demographic characteristics, given the questions that focused on respondents' gender, age, and educational level. By analysing this sample, we had the opportunity to obtain a wider range of information that will allow us to gain a deeper understanding of the impact of digital marketing on consumer behaviour. This diversity in the selected sample contributes to the validity of the research results, allowing us to see potential variations in responses, according to the demographic profile of the respondents.

Tables with the structure of respondents according to gender, age and level of education are shown below.

Table 1. Respondents' Gender

	<i>f</i>	<i>%</i>
Female	110	72,8
Male	41	27,2
Total	151	100,0

Source: Authors' survey

As can be seen in Table 1, a total of 151 respondents participated in the study. The structure of the sample shows a significantly more female respondents compared to the male respondents. More precisely, female respondents made up 72.8% of the total number of respondents, i.e., 110 female respondents. Male respondents accounted for 27.2%, which corresponds to 21 male respondents. This sample structure allows for analysis from the perspective of respondent gender, offering a broader picture of the demographic profile that contributed to the data collected.

Table 2. Respondents' Age

	<i>Min</i>	<i>Max</i>	<i>AS</i>	<i>SD</i>
Age	18	64	32.61	12.483

Source: Authors' survey

The data from Table 2 give an insight into the diversity of the ages of respondents who participated in the survey. The youngest respondent was 18, while the oldest respondent was 64. This wide range of age groups allows us to look at consumer behaviour across different life stages.

The respondents' average age was 32 years. This statistic provides an additional dimension in understanding the demographic profile of the sample, contributing to the overall context of the analysis. Different

age groups within the sample allow us to identify potential variations in consumer perceptions and behaviour in the digital environment, depending on different life stages.

Table 3. Respondents' Education

	<i>f</i>	%
Elementary	4	2,6
Secondary	53	35,1
College	30	19,9
University	64	42,4
Total	151	100,0

Source: Authors' survey

Table 3 shows the distribution of the level of education of the respondents who participated in the research. These data indicate significant variation in the level of education within the sample. Namely, 2.6% of the respondents had elementary education, 35.1% had a secondary education, 19.9% obtained college education, while 42.4% of the respondents had university education. This diversity of educational backgrounds provides contextual insight into the heterogeneity of the sample.

The SPSS v26 software was used to analyse the collected data. Data processing was carried out through the application of descriptive statistics and the Pearson bivariate correlation method. In order to check for potential differences between genders, and in relation to the investigated variables, we used the student's t-test for independent samples. On the other hand, to investigate the variations among respondents with different degrees of professional education, we applied ANOVA analysis. This systematic approach to data analysis provides thorough insight

into sample characteristics, allowing us to identify potential trends and differences relevant to research on the impact of digital marketing on consumer behaviour.

4. Results

Descriptive analysis of the collected data provides insight into the basic characteristics of the sample, using a series of indicators that include minimum and maximum values, arithmetic means, standard deviations, and scale reliability. This analysis lays the groundwork for a more detailed understanding of data distribution and within-sample variation.

The minimum and maximum values enable the identification of the respondent's response range, while the arithmetic means provide a measure of the central tendency, i.e., the mean position of the values. These descriptive indicators are presented in Table 4, which serves as a visual representation of the statistical characteristics. In the following section, we will analyse in more detail the key values obtained by descriptive analysis.

Table 4. Descriptive analysis

	Min	Max	AS	SD	α
Scale	12	31	20.28	4.15	.77

Source: Authors' survey

Note: Minimum and maximum values, arithmetic means, standard deviations and scale reliability in research.

Table 4 shows that additional information about the characteristics of the data set includes a minimum value of 12, a maximum value of 31, an arithmetic mean of 20.28, a standard deviation of 4.15, and a scale reliability of 0.77. Descriptive indicators confirmed that there are no significant deviations from the average in relation to the scale. In addition to descriptive indicators, we also measured Cronbach's alpha reliability coefficient and it indicated that the scale has a satisfactory level of internal consistency.

Pearson's correlation was the next step in investigating the relationship between two variables. In this case, the relationship between the age of the respondents and their score on a scaled set of questions was analysed.

This method makes it possible to measure the degree of linear relationship between two variables, providing quantitative insight into how changes in one variable may be related to changes in another. For the first variable - age, potential correlations with the score on the scale, the second variable in the analysis, were investigated. The results of the Pearson correlation will contribute to a better understanding of the dynamics between the age structure of the respondents and their attitudes, providing an additional depth of interpretation of the results.

Table 5. Correlation between measured variables: age and scale score

Age	
Score	.334

* - $p < .05$;

Source: Authors' survey

The detailed results from Table 5 provide an insight into the relationships between the measured variables, specifically the age of the respondents and their score on the scale. The obtained Pearson's correlation coefficient is 0.334, which indicates the existence of some degree of linear relationship between these factors. The value of this coefficient does not exceed the threshold of statistical significance, which implies the absence of a clear statistically relevant connection between the age of the respondents and their score on the scale.

A T-test analysis for independent samples was performed to further investigate possible differences between the sexes of the respondents. This analysis is of particular importance, considering gender as a key factor in the research, in which 110 female respondents and 41 male respondents participated. Table 6 shows the structure of the sample by

gender, allowing a systematic insight into potential variations in responses between the female and male population.

Table 6. Descriptive statistics of measured psychological variables by respondents' gender

Gender	N	AS	SD
Male	41	19.56	4.23
Female	110	20.55	4.10

Source: Authors' survey

Together with the results and the arithmetic means presented above, we performed a t-test for independent samples.

Table 7. T-test for independent samples

	<i>F</i>	<i>t</i>	<i>df</i>
Score	.003	-1.300717	149

* - $p < .05$;

Source: Authors' survey

The analysis of descriptive indicators in Table 7 provides an insight into the differences between male and female respondents in the achieved scores on the examined constructs. Male respondents achieved, in general, slightly higher scores on most of the examined factors, except for the vulnerable narcissism construct, where female respondents scored slightly higher.

Table 7 shows the results of the t-test for independent variables aimed at comparing the two groups of respondents according to gender in relation to the scale scores. The obtained results $F = 0.003$, $t = -1.300717$ and $d = 149$ indicate that there are no significant differences between male and female respondents in this sample, summarizing the statistically determined values for the total effect (F), t value and degree

of freedom (d) in the t-test for independent samples. Based on these findings, we can conclude that the differences in scores between genders are not statistically significant in the observed sample of respondents.

Analysis of variance (ANOVA) was the next statistical tool for investigating significant differences between more than two groups, especially when it comes to categorization according to certain factors. In our research, we used ANOVA analysis to investigate the structure of the obtained level of education of the respondents. Table 8 presents the structure of the sample according to the level of education.

Table 8. Descriptive indicators according to respondents' education

	<i>N</i>	<i>AS</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>
Elementary	4	21	4.97	15	26
Secondary	53	20.1509	4.12	12	29
College	30	20.2333	3.84	14	26
University	64	20.3594	4.35	12	31

Source: Authors' survey

We also examined whether there are differences between respondents with different levels of education.

Table 9. ANOVA

Model	<i>Sum of squares</i>	<i>df</i>	<i>Variance</i>	<i>F</i>	<i>p</i>
Regression	3.424	3	1.141	.065	.978
Residual	2574.893	147	17.516		
Total	2578.318	150			

Source: Authors' survey

Table 9 shows in detail the results of the ANOVA analysis with a focus on identifying potential differences among respondents with different levels of education. Through the analysis, we conclude that no statistically significant differences were found between the subsamples in relation to the score on the scale.

The results showed no statistically significant difference between respondents with different levels of education in terms of their score on the scale ($F = 0.003$, $p = 0.978$). This p-value indicates a lack of statistical significance at the conventional 0.05 level. Variation within each subject group still accounted for a significant portion of the total variability, but differences between groups were not sufficient to reach statistical significance. The total variability in the data is 2578,318.

These findings indicate that the level of education, at least according to the sample from this research, may not play a key role in the formation of consumer attitudes and behaviour in the context of digital marketing.

5. Conclusion

The world of digital marketing is a dynamic and constantly evolving environment, where understanding and effectively targeting the right target group is the key to success. While discussing target group definition, geographic and psychographic analysis, keyword analysis, data analysis, and the use of surveys and market research, one central issue stands out, and that is the profound impact of digital marketing on consumer decision-making.

Digital marketing has revolutionized the way businesses connect with consumers. It's not just about reaching a wider audience; it's about reaching the right audience with the right message at the right time. Geographic features, such as location, help marketers tailor their strategies to specific regions, ensuring that marketing efforts are relevant and effective.

Psychographic factors, including interests, values, and attitudes, provide insight into what motivates consumers and guides their purchasing decisions. A deeper understanding of these aspects will enable digital marketers to create messages and campaigns that resonate on a deeper level and make meaningful connections with the target group.

Keyword analysis allows marketers to understand user intent by discovering what users are searching for online. This knowledge gives them the power to optimize content and campaigns to align with consumer needs and preferences.

Data analysis serves as the foundation of digital marketing. The ability to collect and interpret data on consumer behaviour, demographics and preferences informs strategic decisions. It allows marketers to fine-tune their approach, ensuring that every aspect of the campaign is data-driven and optimized for success.

The results showed no statistically significant difference between respondents with different levels of education in terms of their score on the scale ($F = 0.003$, $p = 0.978$). This p-value indicates a lack of statistical significance at the conventional 0.05 level. Variation within each group of subjects still accounted for a significant portion of the total variability, but differences between groups were not sufficient to reach statistical significance. The total variability in the data is 2578,318. These findings indicate that the level of education, at least according to the sample from this research, does not play a key role in the formation of consumer attitudes and behaviour in the context of digital marketing.

The importance of this research is that it contributes to a better understanding of the relationship between the impact of digital marketing and consumer behaviour.

The results of this research can be significant for a better understanding of consumer behaviour in the digital environment, as well as examining gender differences with regard to the impact of digital marketing and online consumers.

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