
Acceptance of innovation in the form of Internet media by consumers in the Republic of Serbia

Karolina Perčić

Belgrade Metropolitan University, Faculty of Management

Nenad Perić

Belgrade Metropolitan University, Faculty of Management

Đuro Kutlača

Mihajlo Pupin Institute, Belgrade

Introduction

- The paper presents acceptance and adoption of online media through direct marketing, by consumers in the Republic of Serbia. It is a sort of innovation in marketing in terms of the way of communication between bidders and consumers, as well as in modern ways of purchasing.
- The aim of the research is to explore the current situation in Serbia regarding this matter. The research question reads: To what extent do consumers in Serbia use innovative forms of communication (over the Internet) with companies for information purposes and to what extent do they buy through certain Internet media?

The formulated hypotheses of the research are as follows:

- **Null hypothesis (H_0):** Most consumers in Serbia often use online direct marketing media to get information about products/services, companies, while a smaller percentage of consumers have a habit of buying online over the Internet, more often through domestic sites than international ones. Considering the fact that the percentage of consumers in Serbia who are buying over the Internet increases year by year, it is also assumed that the percentage of consumers who buy over the Internet will be more than 45.4% of the Internet users (as it was in April 2016 according to the Statistical Office of the Republic of Serbia).

Introduction

- **Alternative hypothesis (H₁):** There is statistically significant correlation between variables, i.e. the age of the consumer and dependent variable - the frequency of web site visits on the Internet to inform about products/services.
- **Alternative hypothesis (H₂):** There is statistically significant correlation between variables, i.e. age of the consumer and dependent variable - the frequency of ordering products/services over the Internet.
- **Alternative hypothesis (H₃):** There is statistically significant correlation between variables, i.e. the age of the consumer and dependent variable - the frequency of visiting social networks Facebook and Instagram.
- **Alternative hypothesis (H₄):** There is statistically significant correlation between variables, i.e. the age of the consumer and dependent variable - the frequency of orders via Facebook and Instagram.

Introduction

- The study provides an insight into the habits and preferences of consumers in Serbia regarding the use of online direct marketing media to inform about products/services, companies and online ordering.
- Usually studies on this topic are not sufficiently useful for the application of marketing strategies in field of internet media.
- The obtained information from the research will be useful for the business practice of Serbian companies in the field of internet marketing, especially because the changes in internet marketers are fast and require to be explored and monitored continuously.

Inovations in Marketing

- „Through innovation, new knowledge is created and diffused, expanding the economy’s potential to develop new products and more productive methods of operation. Such improvements depend not only on technological knowledge, but also on other forms of knowledge that are used to develop product, process, marketing and organisational innovations.“ Oslo Manual, Guidelines for Collecting and Interpreting Innovation Data (2005., Third Edition). Organisation for Economic Co-operation and Development (OECD) and Statistical Office of the European Communities
- The internet has the highest rate of acceptance of innovation. For Europe, this rate was 110% at the beginning of the 21st century, for Asia and the Pacific more than 150%, the Middle East and South America more than 100%, and Canada and the USA about 40%.
- Marketing and innovation play a role in creating the competitive advantage of companies, and wider, national economies.
- Innovations in marketing are factor of primary importance for achieving high performance of the company, and satisfaction and loyalty of consumers.

Inovations in Marketing

- Innovation implies openness towards change, successful change management and successful acceptance of changes. Most often it is viewed as an asset of an organization, but in the business of marketing-orientation companies, it is necessary to consider the other side of the market-consumers and their willingness to accept knowledge and technologies (diffusion) in terms of applying new methods of communication and purchasing.
- The most common innovations in marketing are the development of new ways of communicating with the market, new marketing channels, the development of new methods for formulating the prices of products and services, innovations in design and packaging, new approaches in marketing research, new approaches in customer relationship management.

Internet Marketing as form of Direct Marketing

- Internet marketing is actually interactive direct marketing.
- The deep and precise fragmentation of the market enabled by internet marketing, whose outcome "one man - one segment", allows the transition from mass to micromarketing.
- Internet marketing can be defined as the use of the Internet as a virtual store where products are sold directly to consumers, whereby the company-communicator needs to offer everything to the consumer, where consumers will choose and read what they want and what they need.

Diffusion of Knowledge and Technology in Internet Marketers

- Two driving forces for economic growth and development are process of creation of knowledge and technologies, and diffusion of knowledge and technologies.
- Although progress is evident, the innovation of the companies in Serbia, is still unsatisfactory, which negatively affects business and national competitiveness.
- Even the level of development and application of marketing in Serbia is low, the marketing concept towards its role in the economy and society is not yet accepted as the dominant business philosophy (the sales concept dominates). It is not understood in the way the necessity of developing marketing capabilities for improving business and innovation performance.
- According to the results of the Republic Institute for Statistics, and the research on innovation activities in Serbia, which covers the period 2014-2016, the participation of business entities of innovators in organization and in marketing was 30.2% and it is less than the innovators of products and processes, where every third business entity is an innovator.

Diffusion of Knowledge and Technology in Internet Marketers

- Here we present the trend of innovative activities in Serbia in the context of the European Innovative Space. Innovative performance of one country is determined on the basis of the overall innovation index.
- According to the **European Innovation Scoreboard 2017**, Serbia has been ranked as a **moderate innovator** (with a performance of 10 - 50% below the EU average)
- In the period from 2010 to 2016, **the innovative performance increased by 17.3%** compared to the EU 2010 average. The main reason for this trend is seen in increased investment in business (R&D expenditure in the business sector - an increase of 13, 4%, Non-R&D innovation expenditures - an increase of 164.7%), an increase in the number of science doctors (by 45.4%) and *an increase in the number of product and/or process innovators (by 42.9%) and marketing innovators and/or organizations (by 63.8%)*.

Diffusion of Knowledge and Technology in Internet Marketers

- According to the results of the research conducted in 2016 by the Market Research Agency - MASMI, about $\frac{3}{4}$ micro, small and medium enterprises (MSMEs) in Serbia have a company website (72% currently and around 3% under construction). Every quarter of the MSMEs does not have a website.
- 14% of MSMEs believes that their consumers are not online, and that this way of communication is not adequate for their work.
- Most MSMEs in Serbia still do not expand their business to the online market - 64% do not offer their products and services online (while 36% use the company's website, but also social networks and advertising sites).
- Of those who offer their products and services at all, almost half (46%) actually have an online ordering option (16% of all MSMEs in Serbia).
- Consumers are mostly those who are looking for the possibility of online ordering, and companies do not see how much it is necessary for growth and development.

Research methodology

- The research was conducted in the Republic of Serbia in the period June-July 2017.
- Target groups were consumers aged 15 to 64 in order to examine their habits and preferences regarding the use of DM's Internet media.
- For the purpose of the research, a questionnaire was used in two forms: the Internet questionnaire (a link to the respondents) and a questionnaire of the same content in printed form. It's a simple random sample. The structure of respondents according to gender, age and place of residence corresponds to the proportions according to the stated characteristics in the Statistical Yearbook of the Republic of Serbia 2016 (SORS), which ensured the representativeness of the sample.
- The sample consists of 1532 respondents, and the statistical error is 2.5% (confidence interval 95%).
- When processing data and interpreting the results, SPSS was used and within it descriptive and comparative statistics (χ^2 test, t-test, ANOVA, regression and correlation).

Research results (descriptive and comparative statistics)

- The tables that follow present the results of the conducted research according to respondents' responses to the degree of agreement with questions in the form of statements for the period of the past year. These statements were evaluated from 1 to 5 (five-degree Likert scale), where under 1 was *never*, under 2 *rarely*, under 3 *sometimes*, under 4 *often*, and under 5 *almost always*.
- Consumers in Serbia often visit websites on the Internet in search for information on products/services (66.7% almost always and often); Often, before purchase, they are informed on the Internet (67.6% almost always and often); about 78% of consumers order products/services over the Internet; Nearly 80% have a profile on Facebook and visit this social network quite often (48% every day); 50% of consumers have an Instagram account and the highest percentage (35%) visits this social network almost every day; use these social networks to order products/services (via Facebook 36%, and Instagram 22%); messages via e-mail (only 14.5% of consumers always and often read every message they receive); Nearly 53% of consumers do not buy products that have not previously seen, touched, tried, talked about product characteristics with the seller. Considering the high percentage of those who ordered at least once a year online, it can be concluded that consumer order products from companies with which buyers are already familiar.

Research results (descriptive and comparative statistics)

- Almost half of respondents (46.9%) always use websites to inform about products/services, and only 11.2% of respondents never visit pages on the Internet.
- Of all categories, respondents aged 35 to 44 the most frequently visit websites (64.3% always), while compared to other categories, the majority of respondents aged 55-64 never visited those sites for information with the intention of buying something (27%). These 27% of the oldest respondents is followed by the youngest with 14.8% who never use the website for information.

	ALMOST ALWAYS	OFTEN	SOMETIMES	RARELY	NEVER	Number of respondents	Missing	Mean
<i>I visit websites on the Internet to inform about products / services.</i>								
IN TOTAL	46,9%	19,8%	12,8%	8,6%	11,2%	1521	11	3,83
I category	38,7%	18,3%	16,3%	11,6%	14,8%	306	1	3,55
II category	59,5%	23,3%	10,4%	2,9%	3,9%	314	0	4,32
III category	64,3%	19,9%	10,3%	2,2%	3,3%	307	0	4,40
IV category	50,0%	27,0%	13,1%	6,3%	3,6%	287	0	4,13
V category	27,7%	12,4%	11,7%	17,7%	27,0%	307	10	2,96

**The first category of respondents are those aged 15-24, the second 25-34 years, the third 35-44 years, the fourth 45-54 years, and the fifth category 55-64 years.*

Research results

- Based on the results, it is noticed that 13.5% of respondents always buy over the internet, 22.1% often, 21.1% sometimes, and 20.2% rarely use the possibilities of modern shopping, and 22.1% never ordered products/services over the Internet.
- Compared to other categories, the largest percentage, of those who never did it, were people aged 55-64 (32.3%). The smallest percentage of respondents of category III never ordered online (9.2%).

	ALMOST ALWAYS	OFTEN	SOMETIMES	RARELY	NEVER	Number of respondents	Missing	Mean
<i>I order products / services over the Internet.</i>								
IN TOTAL	13,5%	22,1%	21,1%	20,2%	22,1%	1517	15	2,85
I category	10,1%	20,6%	21,9%	21,3%	25,7%	305	2	2,68
II category	17,9%	28,0%	26,2%	14,7%	13,3%	314	0	3,23
III category	20,2%	25,0%	28,7%	16,2%	9,2%	305	2	3,31
IV category	10,7%	18,7%	17,1%	24,6%	27,8%	284	3	2,59
V category	10,6%	18,8%	11,3%	24,1%	32,3%	309	8	2,50

**The first category of respondents are those aged 15-24, the second 25-34 years, the third 35-44 years, the fourth 45-54 years, and the fifth category 55-64 years.*

Research results

- It is a large percentage of those who do not order products/services via Facebook (64.2% of all respondents). Small number of respondents are always ready to post via Facebook - 4.8%, and 6.1% often , 9.5% sometimes and 13.7% rarely.
- 34.1% of respondents at once ordered a product via Facebook.
- The largest percentage of respondents who always order via Facebook (9%) is aged 25 to 34, and the smallest among respondents aged 45 to 54 (1.2%). The highest number of respondents who never order such products/services (86.2%) is in the category aged 55 to 64.

	ALMOST ALWAYS	OFTEN	SOMETIMES	RARELY	NEVER	Number of respondents	Missing	Mean
<i>I order products / services over the Facebook.</i>								
IN TOTAL	4,8%	6,1%	9,5%	13,7%	64,2%	1508	24	1,72
I category	5,4%	7,6%	11,6%	14,8%	59,3%	301	6	1,83
II category	9,0%	7,9%	13,6%	19,4%	49,5%	312	2	2,07
III category	6,6%	5,1%	15,1%	16,5%	56,6%	307	0	1,89
IV category	1,2%	7,1%	3,6%	8,7%	73,0%	271	16	1,45
V category	1,4%	2,1%	2,1%	8,2%	86,2%	317	0	1,24

**The first category of respondents are those aged 15-24, the second 25-34 years, the third 35-44 years, the fourth 45-54 years, and the fifth category 55-64 years.*

Research results

- As far as 77.9% of all respondents never order products/services through Instagram. Very small percentage of respondents are always ready to post via Instagram - 3.7% always, and 3.3% often, 7.2% sometimes and 6.2% rarely.
- 20.4% of respondents ordered a product via Instagram at least once.
- The highest percentage of respondents who always order via Instagram (7.8%) are aged 15 to 24, and the smallest among respondents aged 45 to 54 (0%). The highest number of respondents who never ordered such products/services (90.1%) is in the category from 55 to 64 .

	ALMOST ALWAYS	OFTEN	SOMETIMES	RARELY	NEVER	Number of respondents	Missing	Mean
<i>I order products / services over the Instagram.</i>								
IN TOTAL	3,7%	3,3%	7,2%	6,2%	77,9%	1506	26	1,46
I category	7,8%	5,6%	14,5%	12,5%	57,9%	300	7	1,91
II category	2,9%	4,7%	7,2%	7,2%	74,9%	305	9	1,49
III category	3,3%	1,5%	5,9%	2,2%	87,1%	307	0	1,32
IV category	0%	2,4%	2,4%	0%	92,9%	281	6	1,12
V category	1,8%	0,7%	1,4%	4,6%	90,1%	313	4	1,17

**The first category of respondents are those aged 15-24, the second 25-34 years, the third 35-44 years, the fourth 45-54 years, and the fifth category 55-64 years.*

Research results

- **There is a statistically significant correlation between variables, i.e. the age of the respondents** and the following dependent variables:
 - **Frequency of web site visits on the Internet to inform about products/services** (confidence interval 99%, risk of error 1%), is negative and weak (Sig.=0.001<0.05; Pearson Correlation= -0.1); which means that the frequency of web site visits is reduced for information, as the age of the respondents increases.
 - **Frequency of visiting Facebook** (99% confidence interval, risk of error 1%) are negative and medium strengths (Sig.=0.00<0,05; Pearson Correlation= -0.4), which means the frequency of Facebook visits is smaller as the age of the respondents is increasing.
 - **Frequency of visiting social network Instagram** (99% confidence interval, risk of error 1%) are negative and medium strengths (Sig.=0.00<0,05; Pearson Correlation= -0.5), which means that the frequency of Instagram visits is reduced as the age of the respondents increases.

Research results

- **There is a statistically significant correlation between variables, i.e. the age of the respondents and the following dependent variables:**
 - **The frequency of ordering products/services over the Internet** (confidence interval of 99%, risk of error 1%), is negative and weak (Sig.=0.001<0.05; Pearson Correlation= -0.1), which means that it decreases the frequency of ordering over the Internet as the age of the respondents increases, or younger respondents are more inclined to buy online.
 - **The frequency of orders via Facebook** (confidence interval 99%, risk of error 1%), and it is negative and weak (Sig.=0.00<0.05; Pearson Correlation= -0.2), which means that the frequency of orders via Facebook reduces with increasing age of the respondents.
 - **Frequency of ordering via Instagram** (confidence interval 99%, risk of error 1%) is negative and weak (Sig.=0.00<0.05; Pearson Correlation= -0.28), which means that the frequency of ordering via Instagram reduces as the age of the respondents increases.

Younger consumers of Serbia frequently order via the Internet, and through social networks.

Research results

- Respondents aged 15 to 18 mostly **prefer information** in markets, shopping malls (39%), and somewhat less through Internet shops (21%), and 18% via social networks (where percent of online stores and social networks also get 39%, for information via the Internet).
- The respondents aged 19 to 41 years in the largest percentage (43%) prefer information via the web (online store), followed by 19% via social networks, and then in the markets of 25% of respondents in this range of years.
- 48% of respondents aged 42 to 64 prefer information in markets, shopping malls, then 22% via the web, and only 8% via social networks.

Research results

In order to find out *what kind of a consumer of the Republic of Serbia is in favor of accepting new products / services*, they were given answers, and the results are as follows (answers and percentages are given for the same):

- I'm the first to become a user of it (I follow developments regarding products that interest me, beyond the borders of our country); 12.0%,
- When I see a product for the first time in others, I quickly become a user of it (I like to give advice and information); 8.7%,
- I accept new products and become their user before the vast majority ("average"); 27.2%,
- I refrain from new products (I become a user of a product only when most people around me have it); 14.4%, and
- I do not like to change the habits and products I'm inclined to; 32.2%.

Research results

- The largest percentage of Serbian consumers (32.2%) are the ones that dislike to change their habits and products, i.e. belongs to a group of consumers who are called *delayed*, given the speed of acceptance of new products.
- After the delayed, there are consumers in the category *early majority* (27.2%), than *late majority* (14.4%), *innovators* (12.0%) and finally the lowest percentage - *early adopters* (8.7%).
- A large percentage of late consumers of Serbia is not a good indicator for successful growth and development, since knowledge and technology diffusion is a prerequisite for growth and development at the micro and macro level. On the other hand, the relatively high percentage of innovators (in relation to the data from theory, where innovators make up only about 2.5% of consumers) represents the potential for more efficient business and quick implementation of innovations and innovative processes in marketing and in general in Serbia.

Research results

- Clothing, footwear and fashion accessories (35.7%) are **the mostly ordered categories over Internet**, followed by technique (29.4%) and books and magazines (29.1%), cinemas, theaters and other forms of entertainment (27.4%), travel and travel tickets, travel arrangements (25.8%), home editing items (13.0%), food and drink (9.3%), etc.
- The number of Serbian consumers who buy via **domestic websites** is quite high (64.9% of those who buy over the Internet), comparing to slightly smaller number of those who buy via **foreign sites** (43%). The percentage of consumers in Serbia who never bought through domestic sites was 35.1%, and the percentage of those who never bought via foreign sites was 57%.

Conclusion

- Direct marketing has become an integral and inevitable part of regular business.
- Innovation of all forms contributes to achieving competitiveness on the market because they create a unique value for consumers. "The particular problem for the development of innovation in Serbia is inadequate business orientation, organizational culture and managerial awareness.,,"
- Innovation in marketing is one of the key factors on which the overall innovation index of Serbia depends.
- Innovation implies openness to change, successful management and acceptance of changes, and is most often viewed as a property of the organization, but it is also necessary to consider the other side of the market - consumers and their willingness to accept knowledge and technology regarding new methods of communication and purchase.
- The number of consumers in Serbia who are shopping over the Internet is increasing, so companies should strongly focus on internet marketing.

Conclusion

- Based on the conducted research, we conclude that most consumers in Serbia are frequently using the Internet direct marketing media to inform products/services, companies (up to 70%), while a smaller percentage of consumers regularly buy online (only 4.8% of respondents said they were buying almost always this way).
- The percentage of those who order via social networks is not negligible - Facebook (36%), Instagram (22%), while in general 78% of consumers have ordered over Internet at least once in the last year.
- It is significantly more purchased through domestic sites on the basis of foreign (65%: 43%). Based on these results, **the null hypothesis is confirmed**.
- **All alternative hypotheses have been confirmed** - it has been established that there is statistically significant correlation between variables, i.e. age of the consumer and dependent variables.

Thank you for attention.