CONSUMERS IN SLOVENIA AND ADVERTISING OF NON-PRESCRIPTION MEDICINES

POTROŠAČI U SLOVENIJI I OGLAŠAVanje LJJEKOVA BEZ RECEPTA

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Abstract
Modern information society enables the consumer to search for any information at any time, but the information quality can be questionable. Moreover, the Internet and television blur the boundaries of the advertising, allowing the consumer to be confronted with ads for products and services of any country, regardless of the national restrictions. The aforementioned facts are particularly problematic in the field of medicinal products. Pharmaceutical companies enable more resources and funding for medicine advertising from year to year. Slovenia is not an exception. Although, medicine advertising in Slovenia is highly regulated. Thus, it is permitted to advertise only non-prescription medicines to the end-consumer, while prescription drugs can be advertised only to professionals, that is, persons who are authorized to prescribe or supply medicine products. Such arrangement is known in most of the world, the only exceptions are the United States and New Zealand, where advertising of prescription medicines is also allowed. In this article we briefly introduce the concept of marketing communication, with the greatest emphasis placed on advertising. After that we present the rules for medicine advertising in the world and in Slovenia and analyse the expenditures for the medicine advertising. In the last part of the article we represent our results of the research in Slovenia, through which we examined the extent to which consumers trust the information in the medications adverts. Besides that, we also studied the consumers and doctors attitudes towards to advertising in general and their relation to the advertising of non-prescription medicines. We were particularly interested in whether the attitude towards this type of advertising among consumers and physicians vary.

Sažetak
1 Introduction

When a person was sick in the past, the doctor was more or less the only one to be relied on for the treatment. Even when the illness was diagnosed by the doctor, the individual didn’t have many different treatment options. Fortunately, it is no longer the same. Individuals are becoming more educated and increasingly want to be actively involved in the treatment process. In addition, we have now a lot of (effective) medications, which can eliminate the symptoms and/or cure a particular medical condition. However, it is becoming more common for the individuals to use medications for self-treatment or the so-called non-prescription medicines. Because the offer of medicines is larger from day to day, the manufacturers devote more effort to the medicine advertising. Medications are considered generally useful, but if used improperly, they can be harmful. As a result, the information regarding medicines is regulated, which means that the pharmaceutical industry cannot prepare the information on medicines completely unattended. This is especially true for providing information in advertisements. Therefore, the above mentioned is regulated in detail in each country.

2 Marketing communication

Generally speaking, we can say that marketing communication is produced with a purpose of informing consumers about a product, persuading them to buy something or agree with something, creating a positive opinion about a product and/or give the latter symbolic significance or in other words, showing how a particular product can solve a problem consumer has more efficiently than any other (similar) product /1/. Nowadays companies encounter difficulties when they are trying to figure out how their market communication can reach their target groups and, more importantly, how to make them behave in a certain way, since we are all literally overloaded with all kinds of messages all the time. That is true for ads of medicine too. Nevertheless, marketing communication is understood as a process that involves a coordination of all dealer’s or manufacturer’s efforts, used to establish channels for the flow of information and persuasion in order to sell a product or services or promote a certain idea /2/. Traditional understanding of communication claims that market communication network consists of advertising, sales acceleration, personal sales, public relations and direct marketing /3/. For a successful marketing communication it is required to have an appropriate combination of all available tools, because only in this way the consumer is taken through every stage of the purchase process /4/. It is also the only way a company "creates" a loyal consumer.

Notwithstanding the mentioned facts, we must be aware that communication of pharmaceutical companies slightly varies due to the specificity of the products. Therefore, the market of medicines and the decisions on this market should be observed through the following three aspects /5/

- the medication prescriber, who is the decision maker,
- the consumer or the medicine user (patient) and
- the payer who is a state and/or the individual consumer.

The target groups of pharmaceutical companies are very different - doctors and consumers /6/. Under the Slovenian law all tools that companies use to advertise medicines are understood or recognized under the term advertising.

2.1 Advertising of medicinal products in the world and in Slovenia

Advertising is any paid form of non-personal presentation and promotion of ideas, goods or services paid by the known contracting authority /7/ that informs and persuades the target market through the media. In addition to informing, the purpose of advertising is to persuade and influence change of certain positions and therefore to influence the appropriate consumer campaign indirectly. All this allows the company to achieve its objectives /8/. Successful communication must also change the consumer message perception and make sure that the consumer will remember the advertised product /9/. To achieve these goals, the ads must be attractive, creative and placed in the appropriate media /10/. Advertising is the most important tool of communication for those who offer products and services to a wide range of people /11/. In this case communication is carried out via the mass media, reaching many consumers all at once. The latter is also suitable for
Medicine advertising can be defined as messages by pharmaceutical companies, which seek to inform, persuade and even entertain the target audience. All with one aim - to influence opinion and behaviour of the addressee /12/. The latter is essential for the pharmaceutical companies /13/. At the same time, we should emphasize that the pharmaceutical companies’ marketing communication is very limited, because the interests of the consumers are protected. Thus, the area, in addition to the laws, comprises the self-regulatory codes, serving to allow the companies themselves to enable the public to understand and control the appropriate relationship between the parties. All this is performed with the aim of strengthening the confident relationship of all shareholders and the public to health professionals, institutions and the pharmaceutical industry itself. The fact is that some form of medicine advertising has always existed and will exist in the future as well, as companies do not want to change their business model, which operates well and is effective. Depending on the amount invested (next section), the pharmaceutical companies are all aware that advertising works. However, we must acknowledge that, although it seems that the expenses of adverts focused on end-consumers are high, they are extremely low, compared to the amount which pharmaceutical companies pay to promote their products to doctors /14/. Medicine advertising is very differently arranged throughout the world. Thus, the advertising of prescription medications directly to consumers is allowed only in the United States /15/ and New Zealand (since 1991). At the same time, the rest of the market, especially the European Union market, where one third of the global sales of medicines is performed, is interesting for pharmaceutical companies in terms of advertising. Thus, many pharmaceutical companies, began directing their marketing communication, despite limitations, directly to consumers /16/, however, in accordance with the restrictions. Although it is generally considered that advertising should contain only approved indications, it should not be directed to children, and it should not create fear or apprehension. Basic standards of advertising should ensure that the information conveyed is truthful and not misleading to consumers /17/. In Slovenia, the medicine advertising is regulated by Chapter 14 of the Medicinal Products Act /18/ and by the

Rules on Advertising of Medicines /19/, which set out detailed conditions and methods of advertising. According to the Medicinal Products Act (ZZdr-2) and the Rules on Advertising of Medicines, the concept of medicine advertising includes all kinds of informing, including information from door to door, propaganda and promotion, which is intended to stimulate the prescription, supply, sale or use of medicines. The acts especially highlight that only advertising of the medicines, approved for marketing authorization in accordance with the Medicinal Products Act is permitted.

Depending on the target group, the medicine advertising is divided to /20/:  
- advertising to the general public – non-professional groups and individuals  
- advertising to the experts - persons authorized to prescribe or supply medicines.

In Slovenia, only advertising of the non-prescription medicines to the general public or the consumers is permitted. Non-prescription medicines are medicines, which are approved as safe and effective for use without a doctor’s prescription. These and other self-care products are available without medical supervision and can be purchased by patients and consumers in pharmacies.

2.2 Advertising the non-prescription medicines in Slovenia

Based on the Medicinal Products Act and the Rules on Advertising of Medicines, only medicines available without prescription may be advertised to the general public. The law explicitly prohibits advertising of prescription drugs to the general public, including advertising and publishing information about medicines containing psychotropic or narcotic substances. In addition, the law also prohibits the direct distribution of medicines for promotional purposes to end-users, medical professionals and health-care providers.

The Rules on Advertising of Medicines define the concept of advertising to the general public as all forms of promotion and informing the non-professional groups and individuals about certain medications. It requires the advertising to be carried out in a manner that the advertisement can be clearly recognized and that the product is clearly presented as a medication. Advertising any non-
prescription medicines to the general public must also contain at least the following information /21/:

- name and common name if the medication contains only one active ingredient;
- data that are essential for efficient, accurate and rational use of the medicine;
- clear and legible reminder in written, pictorial or verbal form - the instruction manual importance, which should be written as follows: "Always read the instructions before use! Consult your physician or pharmacist about the risk and the possible side effects."

Similar policies or warnings in advertisements are also known in other countries. Some examples of messages that have been adopted by some countries are /22/:

- Portugal: “Read the information on the label or in the leaflet.”
- Poland: “Read carefully the instructions on the package leaflet or on the outer packaging.”
- Argentina & Australia: “Read the instructions for use carefully and consult a doctor in case of doubt.”
- Brazil: “Ask for medical advice if symptoms do not disappear.”
- Canada: “This product may not be right for you. Always read and follow the label.”

The Medicinal Products Act /23/ below defines that an advertisement for the non-prescription medicine to the general public should not contain any information which:

- give the impression that a medical consultation or surgical operation is unnecessary;
- suggest that the effects of taking the medicine are guaranteed, that there are no side effects or that it is better than any other medicine or that it is the equivalent to any other treatment or medicinal product;
- indicate that the person’s health can be improved only by taking the advertised medicine;
- suggest that the condition of a person can get worse without taking the advertised medicine (with the exception of vaccination programs);
- are directed exclusively or principally towards children;
- refer to a recommendation by scientists, health professionals and public celebrities, who could encourage the consumption of medicinal products due to their influence in media;
- indicate that the product is a food, cosmetic or other product;
- indicate that the safety and effectiveness of the product are the result of the natural origin;
- could, according to a description or detailed representation of a case history, lead to erroneous self-diagnosis;
- use an improper, alarming or misleading terms, to claim the recovery or
- use an improper, alarming or misleading terms, pictorial representations of changes in the human body caused by a disease or injury, or an effect of the medication on the human body or its parts.

In the following section we will present the results of the research, through which we wanted to examine the consumer’s attitude towards advertising in general, and consumer’s attitude towards the advertising of non-prescription medicines. We were particularly interested in proving the connection between age and education of consumers with their level of confidence in advertisement information for non-prescription medicines. Hence, we set up a hypothesis: Older and more educated consumers have less trust in the advertisement information than younger and less educated consumers. Besides, we wanted to examine whether the consumer’s attitude towards advertising of non-prescription medicines differs from the attitude of doctors towards non-prescription medicines advertising. For this purpose, we set up a second hypothesis: Doctors are more critical towards the advertisements for non-prescription medicines.

2.3 Expenditures on advertising of medicines around the world and in Slovenia

The Institute for market and media research Mediana measured that the gross value of total advertising in Slovenia in 2012 was 649.2 million euros, i.e. 2.8 percentage points less than in 2011. In particular, according to the Mediana’s director, Irena Setinšek, the gross value of the advertising
pie has fallen for the first time since the survey has been conducted in Slovenia, that is, from 1994 /24/. We can say that the largest share in terms of gross value of advertising belongs to television, which with 433.7 million represents 66.8 percent of the advertising market. This was followed by spending on advertisements in print media (127.9 million or 19.7 %) and expenditure on outdoor advertising (36 million or 5.7 %). The fourth largest share of advertising space is represented by 4 % of advertising on the Internet (26.2 million euros), while expenditure on advertising on the radio accounted for 3.4 % (22.3 million euros). Expenditure on advertising in other media were negligible /25/.

ZenithOptimedia estimated that advertisement spending in 2013 achieved top $500 billion for the first time. That’s $90 for each tracked person living in the markets. Differing from the state in Slovenia in 2012, prognosis for the rise of advertising around the world is very optimistic. Worldwide spending will rise a robust 5.3 % in 2014 and 5.8 % in 2015 and 2016, up from 3.6% in 2013. Put another way, the ad market next year will essentially match its pre-recession growth rate (5.4 % in 2007) /26/. If we look at worldwide advertisement spending by medium, we see that the internet in 2013 passed newspapers to become the world’s second-largest ad medium, behind TV. The internet now captures one in five ad dollars. If we found out that the total gross value of advertising in Slovenia decreased in 2012, we cannot say this for the gross value of advertising by the pharmaceutical companies. As can be seen from the table below, the gross value of the medicine advertising in 2012 amounted to 31.69 million, an increase of 11.78 % over the previous year /27/.

<table>
<thead>
<tr>
<th>Medium/Year</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV</td>
<td>23,034,358</td>
<td>23,921,438</td>
<td>30,048,999</td>
</tr>
<tr>
<td>printed media</td>
<td>4,644,159</td>
<td>5,566,751</td>
<td>6,098,384</td>
</tr>
<tr>
<td>radio</td>
<td>0</td>
<td>1,621,939</td>
<td>1,744,940</td>
</tr>
<tr>
<td>internet</td>
<td>605,710</td>
<td>449,751</td>
<td>905,667</td>
</tr>
<tr>
<td>outdoor advertising</td>
<td>46,678</td>
<td>113,124</td>
<td>118,533</td>
</tr>
<tr>
<td>other</td>
<td>0</td>
<td>7,985</td>
<td>59,871</td>
</tr>
<tr>
<td>mobile advertising</td>
<td>1,750</td>
<td>1,500</td>
<td>3,750</td>
</tr>
<tr>
<td>cinema</td>
<td>22,064</td>
<td>11,811</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>28,354,720</td>
<td>31,694,298</td>
<td>38,980,144</td>
</tr>
</tbody>
</table>

As for the complete gross value of advertising in Slovenia, we can estimate that with advertising medications encompasses 77.09 % of TV advertising, which is followed by printed media (15.64 %) and radio (4.48 %). The table above also shows that the budget for advertising on the Internet in 2013 was more than doubled. This only confirms the finding of Irena Setinšek, which says that advertisers are aware that the marketing communication should adapt to changes in the market. So they should tailor their strategies, because a greater emphasis is always on the involvement of consumers and two-way communication /28/.

When we analysed the expenditure on medicine advertising by the manufacturers, we found out that the most financial funds for advertising in Slovenia spends the company Lek, d. d. (14.12 % of expenditure for medicine advertising or 5.50 million), which is followed by Krka, d. d., with 4.33 million (11.13 %) and Bayer with 3.82 million (9.79 %). It is necessary to say that more funds for advertisements than Bayer is spent by the company Farmicom that markets the brand SENSILAB. This company spends over 3.84 million euros /29/.

As in the case of Slovenia, similarly also applies to the world. According to Nielsen, the pharmaceutical industry’s spending on DTC advertising via “measured media” increased by nearly 10 % in 2013 vs. 2012 /30/. In the table below can we see that ad spending on internet and in newspapers decreased and that the television took nearly 58% of the market.
At this point can we say that on the DTC side, the Top 20 (the 20 pharma companies that spent the most on total promotion) spent 3.2 billion dollars, which is about 85% of the total 2013 DTC.

If on one hand we can be optimistic that the market is growing and thus consumers receive information about new medicines, on the other hand we must worry about the fact that the average pharmaceutical company spends almost twice as much in advertising as they do during research and development. To put the colossal nature of pharmaceutical marketing in to perspective, in 2000 the pharmaceutical giant Merk & Co. spent more than 160 million dollars advertising their anti-inflammatory drug Vioxx. In comparison, Pepsi spent 125 million dollars that year and Budweiser, in total spent 146 million dollars. What kind of attitude towards medicine advertising have consumers in Slovenia represent the results of our research.

3 Methodology

A lot has been written on advertising in terms of marketing and marketing communication, but there is slightly less literature on medication advertising, being especially true for Slovenia. Review of the existing professional and scientific literature was made using different databases (Emerald, ProQuest) and COBIB.SI (Mutual bibliographic catalogue database). The law regularisation has been introduced with the help of applicable laws. For the empirical part we used a non-experimental, quantitative research method.

3.1 Description of the research instrument

The data were collected by the survey. As a research instrument we used a structured questionnaire in a form of an online survey, which was conducted by using the portal www.1ka.si. Mainly the closed questions were used, although the respondents also had the option to write an individual opinion on specific topics at some questions. This means that we used semi-open questions too. The questions were designed on a basis of the reviewed literature and the current situation in Slovenia. Furthermore, the questionnaire consisted of three sets. In the first part, the questions were related to the demographic characteristics of the respondents. We were interested in the consumers’ gender, age, region of residence and education. When we interviewed the physicians, we were interested in their gender, years of service, the work region and their position of employment. In the second part of our questionnaire, both groups of respondents were asked about their attitudes towards advertising in general. In the third section, the attitude of both groups of respondents to the advertising of non-prescription medicines (sometimes called an over-the-counter, or OTC medicine) was verified by using two types of questions, namely:

- questions for opinion measurement by using a simple scale (yes, no, I do not know) and summary scales, scales known as the Likert scale (1 - strongly disagree, 2 - disagree, 3 - not even agree nor disagree, 4 - agree, 5 - completely agree),
- questions in the form of lists, which the respondents chose the statement from

Cronbach’s coefficient alpha for the set of arguments, where both groups of respondents were asked about their attitudes towards advertising in general is 0.802 (exemplary reliability). Cronbach’s coefficient alpha for a set of arguments, where the attitude of both groups of respondents to the ad-
Advertising of non-prescription medicines was presented, is 0.664 (remarkable reliability). This means that the measuring instrument has reached the level of reliability for the use of the results /33/.

### 3.2 Description of samples

For the purpose of research, we decided for an accidental sampling, which is one form of non-probability sampling. It is very widespread in practice, since such samples are much cheaper and allow faster implementation. It is assumed that our estimates do not often differ from the estimates of probability samples /34/, however, the fact is that this type of sampling does not indicate the accuracy of model estimates and performs the related procedures of hypothesis testing characteristics of the population and determining the confidence of model estimates /35/. Accidental sampling, one of the most simple forms of non-probability sampling /36/, based on the selection of sample units that are easiest to reach. In this context, the possibility of representativeness of the sample (in this case) is low /37/, so the results of such surveys are risky used to draw conclusions about the entire population, since in such samples exist a substantial likelihood that there will be a bias regarding information /38/. Undoubtedly, the results obtained can be an indicator of consumers and physicians attitudes to advertising in general and to advertising of non-prescription medicines.

#### 3.2.1 Presentation of a sample of consumers

The study involved 995 respondents, of whom 71 % were women (706 persons). The age structure of the sample is shown in the graph below.

![Figure 1: Age structure of the sample](image)

Source: Authors contribution

As can be seen the most or 27 % of respondents was aged between 30 and 39 years, closely followed by the aged 20 to 29 years (26 % of respondents) and from 40 to 49 years (24 % of respondents). There were 6 % of respondents more than 50 years old. People in the sample came from all parts of Slovenia (by statistical regions), the majority (42 %), was from the south-east Slovenia, 27 % of respondents were from the central Slovenia region, 7 % from Spodnje posavska region and 6 % from Podravska region. Other regions were represented by 5 % or less of respondents. Respondents also differed by their educational level. Namely, 31 % of respondents had completed four years of secondary school, followed by the respondents with completed high school or the first Bologna cycle (30 % of respondents), completed university studies or the second degree Bologna cycle had 18 % of respondents. 3 % of people from the sample completed a vocational three-year high school, Master of Science degree and doctoral studies. Merely 1 % of respondents finished only primary education or less.

#### 3.2.2 Presentation of the sample of physicians

The sample of physicians in the research involved 104 respondents, of which 66.34 % were women (69 persons). Regardless of the gender, the sample of the respondents in relation to their years of service varied, as shown in the graph below.
As we can see, most of the respondents have had 10 years of service (24%), 16% of respondents, the lowest percentage, had more than 40 years of service. The physicians came from all parts of Slovenia, most of them, namely 30%, were from Jugovzhodna Slovenia region, 28% of respondents were from Osrednjeslovenska region, 8% from Savinjska and Gorenjska region and 6% from Podravska and Obalno-kraška region. Other regions were represented by 5% or less of the respondents. When we look at the sample structure according to their position of employment, we find that 66% of the respondents were employed in public health centres and 22% in hospitals. In the sample 8% of respondents had a private concession too. 8% of respondents mentioned the other forms of employment, such as: pharmaceutical company, private practice, public tertiary health institution, etc.

3.3 Description of the research conducted and data processing / Procedures and statistical methods

The survey was conducted among residents of Slovenia. According to the fact that we wanted to include as many units with different characteristics as possible in our study, we decided for increasing sampling [39], which is sometimes referred to as the “chain sampling” [40] or the “snowball sampling”. We provided the online survey URL link via e-mail personal database of addressees, where they were asked to forward the link to their contacts, once they are finished. In addition, we published a survey on various social networks (Facebook, Twitter, etc.), where individuals shared the survey on. The survey was conducted from April 1 to May 9, 2014. Participation in the survey was voluntary, all respondents were guaranteed anonymity. For surveying physicians we had the assistance of the Medical Chamber of Slovenia, who included in the URL link to our survey in their online publication Bilten ZZS, namely, in Bilten ZZS no. 278 (13 March 2014), Bilten ZZS no. 279 (20 March 2014) and in Bilten ZZS no. 282 (10 April 2014). The newsletter was sent to 7,395 e-mail addresses. The data obtained using a questionnaire, were processed by a computer program Microsoft Excel for Windows and IBM SPSS Statistics 21. The results are presented on the basis of the average values and standard deviations. Comparison between the two groups of respondents was done by using t-test.

4 Results of the research

Nowadays not a day goes by that we do not encounter advertisements in all media around us, no matter how we want to avoid them or how we want to gain new information. In the table below, we can see how consumers and physicians perceive the advertising in general.
We can see that respondents of both groups mostly agree with the statement that with the adverts companies encourage consumers to buy more than they really need ($\bar{x} = 4.5$). At the same time they also believe that despite the multitude of adverts, it is very difficult to know which brand is the best ($\bar{x} = 4.3$) and that advertisers should be more responsible in their adverts ($\bar{x} = 4.3$; SD = 0.77 or. $\bar{x} = 4.4$, SD = 0.79). In the second set of questions, we asked both groups of respondents about their relation to the advertising of non-prescription medicine. Let us mention that 99% of the respondents have already bought a non-prescription medicine, namely 96% of the respondents spends on average 30 euros per month, and 3% spend from 30 to 60 euros per month for buying non-prescription medicines. The survey also included consumers that spend over 90 euros per month for the medicines. Despite the fact that the mentioned amounts are small, we should note that these are average monthly expenditures, which means that 96% of the respondents spend up to 360 euros per month for non-prescription medicines on the annual level. This, however, is quite a large amount, of which the advertisers are well aware, because the expenditures for non-prescription medicines, despite the crisis, do not fall significantly. Nonetheless, consumers on average do not trust advertisement information on non-prescription medicines. Based on the results, we found out that the average level of confidence in such information is just 2.6 (according to the 5-step Likert scale). Consumers much more trust physicians and pharmacists in a pharmacy ($\bar{x} = 4.00$), scientific and professional books ($\bar{x} = 3.9$) and they also trust people with a similar disease ($\bar{x} = 3.8$). The correlation matrix (Table 4) shows that the variables trust in advertisements for non-prescription medicine and completed level of education are connected very weakly. With value of significance $p = 0.004$ we can say that a linear relationship exists also in the population. Therefore, it is recognized that consumers with higher education less confide in advertisements for non-prescription medicines. It can also be claimed that the older population trusts the advertisements less than the younger one ($p = 0.023$).

Table 3: Attitudes of respondents to advertising in general

<table>
<thead>
<tr>
<th>Statement</th>
<th>Consumers</th>
<th>Physicians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companies encourage consumers to buy more than they really need.</td>
<td>4.5, 0.68</td>
<td>4.5, 0.69</td>
</tr>
<tr>
<td>Despite the massive advertising it is still difficult to know which brand is better.</td>
<td>4.3, 0.75</td>
<td>4.3, 0.74</td>
</tr>
<tr>
<td>Advertisers should be more responsible in their adverts.</td>
<td>4.3, 0.77</td>
<td>4.4, 0.79</td>
</tr>
<tr>
<td>Advertising and promotion expenses unnecessarily raise the price paid by consumers.</td>
<td>4.0, 0.93</td>
<td>3.9, 0.93</td>
</tr>
<tr>
<td>Advertising misleads people to spend their money unwisely.</td>
<td>4.0, 0.91</td>
<td>3.9, 0.86</td>
</tr>
<tr>
<td>Most adverts serve to seduce and not to inform the consumers.</td>
<td>4.0, 0.93</td>
<td>4.0, 0.83</td>
</tr>
</tbody>
</table>

Source: Authors contribution

Table 4: Correlation Matrix: Pearson’s correlation coefficient

<table>
<thead>
<tr>
<th></th>
<th>Trust in advertisements</th>
<th>Education level</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation Coefficient</td>
<td>1.000</td>
<td>.906**</td>
<td>.076*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.</td>
<td>.004</td>
<td>.023</td>
</tr>
<tr>
<td>N</td>
<td>888</td>
<td>886</td>
<td>887</td>
</tr>
<tr>
<td>Spearman’s rho</td>
<td>-.906**</td>
<td>1.000</td>
<td>.170**</td>
</tr>
<tr>
<td>Correlation Coefficient</td>
<td>.004</td>
<td>.</td>
<td>.000</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>N</td>
<td>886</td>
<td>963</td>
<td>962</td>
</tr>
<tr>
<td>Age</td>
<td>-.076*</td>
<td>.170**</td>
<td>1.000</td>
</tr>
</tbody>
</table>
In continuing the research we studied the attitude of consumers towards advertisements for non-prescription medicines more precisely. Namely, the respondents marked to what extent they agree with individual statement on a 5-point scale (Table 5). These same statements were also evaluated by physicians, since we also wanted to examine their attitude towards the advertising of non-prescription medicines.

**Table 5: Agreement with statements about advertisements for non-prescription medicines**

<table>
<thead>
<tr>
<th>Statements</th>
<th>Consumers</th>
<th>Physicians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicine advertising should give more information about the risks and / or side effects.</td>
<td>4.2</td>
<td>4.2</td>
</tr>
<tr>
<td>Medicine advertising should give more information about the benefits of taking them.</td>
<td>3.8</td>
<td>3.5</td>
</tr>
<tr>
<td>Medicine advertising represents medications better than they actually are.</td>
<td>3.8</td>
<td>4.1</td>
</tr>
<tr>
<td>Medicine advertising informs the consumer about new medications.</td>
<td>3.6</td>
<td>3.5</td>
</tr>
<tr>
<td>Medicine advertising is responsible.</td>
<td>3.4</td>
<td>3.2</td>
</tr>
<tr>
<td>Medicine advertising helps people to make better decisions in relation to their health.</td>
<td>3.0</td>
<td>2.7</td>
</tr>
<tr>
<td>Medicine advertising is, in my opinion, useful.</td>
<td>3.0</td>
<td>2.9</td>
</tr>
<tr>
<td>I believe that only medicines that are safe to use are advertised.</td>
<td>2.7</td>
<td>2.5</td>
</tr>
<tr>
<td>I trust the information in the advertisements.</td>
<td>2.5</td>
<td>2.3</td>
</tr>
</tbody>
</table>

Source: Authors contribution

From the table above it is obvious that no matter whom we interviewed, on average, all mostly agree with the statement that medicine advertising should give more information about the risks and / or side effects ($\bar{x} = 4.2$) and that the advertising represents medications better than they actually are (consumers: $\bar{x} = 3.8$; physicians: $\bar{x} = 4.1$). Despite the mentioned shortcomings of the ads, a closer look at the results of the consumers’ survey shows that 50 % consumers agree or totally agree with the statement that the medicine advertising is responsible. However, only 32 % of the respondents expresses agreement with the statement that the medicine advertising is useful. At the same time, it is also true that there is only 24 % of the respondents having the opposite opinion. The remaining consumers were not able to identify with the addressed problem. Even smaller amount of physicians believe in the usefulness of medicine advertising (22 % of the respondents). They are also less confident that the medicine advertising is responsible. There is only 42 % of the respondents who totally agrees with the fact.

Therefore, it is not surprising that 81 % of the respondents believe that medicine advertisements represent medications better than they really are. An even greater proportion (85 % of the respondents) believe that adverts should contain more information about the side effects of the medication advertised.

The t-test comparison method was used in the following part of our study. Comparing the agreement with statements about advertising of non-prescription medicines, we used two groups of respondents. We found out that there are statistically significant differences between the two groups of respondents in their statements:

- Medicine advertising helps people make better decisions in relation to health. ($t = 2.745; p = 0.006$);
- Medicine advertising should give more information about the benefits of taking them. ($t = 3.492; p = 0.001$);
• Medicine advertising represents medications better than actually are. ($t = -2.427; p = 0.017$).

Based on the t-test, we can conclude that doctors are more critical to the advertising of non-prescription medicines as the consumers.

Table 6: T-test

<table>
<thead>
<tr>
<th>Independent Samples Test</th>
<th>Levavere Testor</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error of Mean</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levavere Testor</td>
<td>Equal variances assumed</td>
<td>0.05</td>
<td>8.19</td>
<td>8.72</td>
<td>0.053</td>
<td>0.017</td>
<td>0.93</td>
</tr>
<tr>
<td>Levavere Testor</td>
<td>Equal variances not assumed</td>
<td>2.491</td>
<td>1.15</td>
<td>7.64</td>
<td>0.006</td>
<td>0.208</td>
<td>0.16</td>
</tr>
<tr>
<td>Levavere Testor</td>
<td>Equal variances assumed</td>
<td>0.68</td>
<td>1.25</td>
<td>8.81</td>
<td>0.154</td>
<td>1.85</td>
<td>0.22</td>
</tr>
<tr>
<td>Levavere Testor</td>
<td>Equal variances not assumed</td>
<td>2.83</td>
<td>-0.18</td>
<td>8.76</td>
<td>0.54</td>
<td>0.26</td>
<td>0.72</td>
</tr>
<tr>
<td>Levavere Testor</td>
<td>Equal variances assumed</td>
<td>0.93</td>
<td>-2.15</td>
<td>8.86</td>
<td>0.202</td>
<td>0.24</td>
<td>0.16</td>
</tr>
<tr>
<td>Levavere Testor</td>
<td>Equal variances not assumed</td>
<td>0.24</td>
<td>-0.15</td>
<td>9.35</td>
<td>0.16</td>
<td>0.48</td>
<td>0.01</td>
</tr>
<tr>
<td>Levavere Testor</td>
<td>Equal variances assumed</td>
<td>0.36</td>
<td>-1.65</td>
<td>9.73</td>
<td>0.217</td>
<td>0.14</td>
<td>0.16</td>
</tr>
<tr>
<td>Levavere Testor</td>
<td>Equal variances not assumed</td>
<td>0.56</td>
<td>-1.56</td>
<td>8.74</td>
<td>0.11</td>
<td>0.21</td>
<td>0.15</td>
</tr>
</tbody>
</table>

6 Discussion

By considering the theoretical definitions and practical knowledge about the extent of expenses on advertising, we found out that the medicine advertising is a running business. We know that advertising creates awareness of non-prescription medicines and helps consumers in their search of products they need /41/. In this study we were interested in whether consumers trust the information in medicine advertisements and which demographic variables affect the confidence. With this purpose, the respondents were first asked about their view on advertising in general. The study showed that both groups of respondents—consumers and physicians—primarily understand advertisements as an incentive to buy more than they really need. At the same point, they draw attention to the fact that despite the amount of adverts, it is difficult to assess which brand is better. The lack of information in adverts is criticised by others too /42/. On the other side, we can trace the adverts, which are greatly exaggerating. Thus, Ule and Kline /43/ argue that the market advertising is not the primary information regarding the products, but a production of social metaphors, indicating the social context of the use of objects and showing the pleasure of their use. Thus, the findings of our respondents that the adverts are primarily serving as seduction and not information are correct. According on the mentioned facts Ries and Ries /44/ argue that new brands cannot be enforced with advertising, since they would use their authenticity. Leaving the consumer to believe that the information is one-sided and that adverts rarely mention all things that are needed. Consumers also believe that adverts do not present the possibility of choice and are often even misleading - advertising being a smug voice of someone who wants to sell something. Both groups of the respondents also felt that advertising and promotion costs unnecessarily raise the price. Although advertising should be an indicator of economic development /45/, the opponents of advertising argue that advertising costs set the price of goods and services higher. Advertisements also contribute to faster outdated of products and promote consumerism, because they promote the need for products we do not need /46/. The results of this year’s survey are very similar to results from 2009, when we did a survey among the postgraduate students of the Faculty of Economics in Ljubljana and students of the Faculty of Social Sciences, on study programmes that were related to marketing. In this case too, the respondents, on average mostly agreed with the statement that with the adverts companies encourage consumers to buy more than they really need ($\chi^2 = 4.11, SD = 0.96$). With a high average level of agreement they evaluated the statement that despite the multitude of adverts, it is very difficult to know which brand is the best ($\chi^2 = 3.95, SD = 0.98$), and that advertisers should be more responsible ($\chi^2 = 4.10, SD = 0.87$). If we compare...
the results of both research for the remaining statements, we see that the respondents from 2009 on the average agreed with them less. On the average, again, they mostly agreed with the statement that most adverts serve to seduce and not to inform the consumers (\( \chi^2 = 3.9, \text{SD} = 1.15 \)). The statement that advertising misleads people to spend their money unwisely (\( \chi^2 = 2.81, \text{SD} = 1.31 \)), and that advertising and promotion costs unnecessarily raise the price to be paid by consumers (\( \chi^2 = 2.73, \text{SD} = 1.37 \)) was on average less agreed with as well. In our opinion, the reason for difference in the perception of advertising is the fact that in 2009, we have surveyed people who were more educated than the average consumer (postgraduate students prior to the Bologna process), and at the same time the fact that they were also students of marketing communication or economy. They saw the advertising as an important tool to ensure the success of a company in the market (\( \chi^2 = 3.36, \text{SD} = 1.10 \)). Depending on their current or future field of work, they did not understand advertising as an unnecessary expense. It was also reasonable for them to perceive adverts as a source of information for the consumer and not as a deception. Furthermore, we investigated to what extent the consumers trust the information in advertisements for non-prescription medicines. We found out that on average, consumers do not trust these information. In connection to medicines, they primarily trust their doctor, pharmacist in a pharmacy, scientific and professional books. This is also true for all other purchases where the consumer is very much involved in the purchase, but they do not have enough experience or knowledge of this product \( /48/ \). The consumer is aware that the source of information will not have any benefits in case of transaction, which influences their poor knowledge \( /49/ \). Perception of adverts is also influenced by demographic variables of the respondents. It is concluded that women, elderly and more educated people are more involved in treatment \( /50/ \). Using the statistical tests, we checked if confidence in advertisements for medicines is affected by gender, age and education. We found out that older and more educated consumers do not trust the content of advertisements for medicines as much as their younger and less educated colleagues do. The first hypothesis was therefore confirmed. However, gender differences were not found. Even according to the other studies, the possibility of advert persuasion on the individual’s behaviour should be influenced by gender. It has been recognized that women should be easier to convince than men. But these differences are expected to be minimal \( /51/ \). Regarding the age, McGuire states that the most susceptible to persuasion are middle-aged people, and the most suggestible are children \( /52/ \). Children influence their parents’ decisions (as much as 89 % of Slovene parents fulfil their children’s wishes, so the only right thing is that children are not included in in direct advertising). Notwithstanding this, we know that the ads are a running business. It is interesting to note McGuire (1985), who argues that the most advertising-susceptible are consumers who have average values of certain personality variables, such as intelligence, self-esteem, age, gender, dogmatism and authoritarianism. He notes that more intelligent people are, generally less vulnerable they are to the persuasive influence in comparison with the less intelligent people. This would be the result of a higher level of criticism, a greater capacity for rational judgment and being better informed. At the same time, he adds, that they may come under the influence of persuasion sooner when it comes to complex messages, because they better understand the advertisements \( /53/ \). In the last part of the study we compared the being-in-favour of medicine advertising between consumers and doctors. No matter which group we asked, everyone mostly agreed that adverts for medicines should give more information on the risks and / or side effects, and that, consequently, medicines are presented way better than they really are. Besides, in their opinion, advertisements should contain more information about the benefits of taking them. Disrespecting the results obtained, we must face the fact that the primary purpose of medicine advertising is not to inform, but influence the preferences of the consumer to the brand \( /54/ \). What is more, the quality of information is questionable, as well as the ability of consumers to understand the adverts. According to the survey, 61 % of the respondents were confused about the pros and cons of the advertised medications \( /55/ \). Researchers also suggest that adverts only describe the benefits of the product and disguise the possible risks and side effects \( /56/ \). By doing so, it may happen that consumers start to believe that advertising of medicinal products is more controlled than it actually is, leading to overestimation of safety. According to researches, consumers are less in favour of advertising medicinal products as advertising in gen-
eral, although at the same time less sceptical about advertising its content /57/. This could result in an increased trust in medicines being advertised /58/. However, our study showed that consumers feel that advertisements for medicines help people to make better decisions in relation to health. This was also evidenced by other researches, showing that adverts empower the consumers /59/. As a useful source of health-related information, advertisements were considered also by Diehl et al. /60/. Similar was found out by Handlin too /61/. He believes that advertisements for medicines allow consumers to have a greater involvement in health care. The usefulness of advertising was reported by An too. She found out, that adverts make health problems more generally known and visible /62/, which may lead to the discovery of potential disease at an early stage and thus avoid complications and hospitalization /63/.

Others even believe that advertising of non-prescription medicines has a number of positive benefits for public health in general, the marketplace, and the individual patient. Research shows that advertising of non-prescription medicines does not lead to growth in consumption /64/. Besides all this, we must not ignore the fact, that consumers do not get enough information for self-diagnosis and / or selecting appropriate treatment /65/. Advertisements for medications are rich in information but there is a problem of their presentation and further understanding /66/. So it is not surprising that doctors are less favourable to advertising non-prescription medicines than consumers. The doctors are more critical to the content of adverts as well. Regardless of the fact that within the EU the manufacturer of medicines shall ensure that information to the public is presented objectively and is not misleading /67/.

7 Conclusion

With the article we have proved that studying the medicinal advertising area is interesting and rather necessary. With this research, we clearly demonstrated that the consumers trust in the information about medicines in advertisements is low. They trust their physicians and pharmacists more. We also found out that the physicians are more critical to this kind of advertising. Regardless of the findings, we must be aware of the fact that the importance of advertising in the field of medicines will be growing and the trend towards changing the field of interest will be growing too. So far, in Slovenia only non-prescription medicines may be advertised. What the future will bring depends on the "negotiating" power of all market participants.

Researching the attitude towards the advertising of medicines could be an interesting further research topic in Slovenia. A survey among physicians could be repeated, because this sample was relatively small. In addition, the attitude of pharmacists in pharmacies towards the advertising of medicines could be examined.

Notes


Literature


Community code relating to medicinal products for human use; 16 November 2012.


