

THE IDENTIFICATION OF THE TARGET E-SPACE FOR THE COMPANY'S ADVERTISING

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Abstract. The development of information technology and the appearance of new marketing channels have led to the changes in marketing and the emergence of new scientific problems. The identification of the target e-space for the company's online advertising is one of the key problems of modern marketing. This topic has been studied by a number of scientists; however, the majority of the studies are focused on the analysis of the business-to-consumer (B2C) marketing features. The present article deals with identification of the target e-space for the advertising in the business-to-business (B2B) conditions while evaluating the means of the formation of the flow of the Internet surfers as well as the users' browsing habits and the areas of their professional interests. The article aims at identifying the factors defining the company's target space for online advertising and improving the algorithm of the formation of the target e-space for advertising, considering the features of the business-to-business model. The following methods are employed: the comparative analysis of the scientific literature; the systems analysis; and the Pareto analysis.

Keywords: business-to-business model, B2B, Internet marketing, online advertising, target e-space.

Jel classification: D83, D85, M31, M37, O39

1. Introduction

In the context of the advance of modern information and communication technology (ICT), business companies are facing the increasing competition in the virtual space. Many areas of life are rapidly moving to the e-space and, what is more, the generation of users to which the Internet becomes a part of the daily routine (e.g., they do not imagine any other way to search for information and do not see their lives without being in the social Internet spaces, such as social networking, blogs, online interest groups and etc.) is growing (Combe 2006; Davidavičienė 2008; Chaffey, Smith 2008; Paliulis, Uturytė-Vrubliauskienė 2010; Guseva 2010). Considering the existing situation, it is particularly important for the organizations to take more active measures in order to represent themselves in the virtual world.

Regarding the facts that the means of the presentation of information on the Internet are constantly improving and their variety and opportunities are increasing, the effective selection of the online advertising space and tools, which allows marketing specialists to save time and preconditions the choice of the direction and intensity of marketing decisions, is becoming a new challenge. The effectiveness of online marketing, which is closely

related to the identification of the target e-space, is one of the most analysed marketing areas (Hague 2006; Jansen, Resnick 2006; Lee 2007; Wang, Head 2007; Chaffey, Smith 2008; Davidavičius 2009; Wang *et al.* 2009). Most of the scientific studies are dealing with the evaluation of the effectiveness of the online marketing or advertising campaigns and the quality, or the effectiveness, of the web sites (Cao *et al.* 2005; Davidavičienė, Tolvaišas 2011; Guseva 2010, Mich *et al.* 2003); however, little attention has been paid to the identification of the target e-spaces and the challenges related to it. The majority of the researches in this area are focused on the identification of the models of the behaviour of online users (Wright 2006 a; Sinclair 2007; Li, Li 2008; Kawase, Herder 2011; Zeb, Fasli 2011); however, numerous factors determining the behavioural motives of the users (e.g., the appearance of the tools of new online marketing; the variety of browsing skills and habits of the different generations of the users; and etc.) are also important. The facts mentioned precondition the relevance of the determination and evaluation of the browsing interests and the need of the tool for the identification of the target e-space for advertising. The problem of the determination of the e-space for advertising is particularly relevant to business-to-business (B2B) marketing, in which personal motives and interests

of the specialists responsible for the decision-making are closely intertwined with business interests.

The present article aims at determining the factors defining the company's target space for online advertising and suggesting an algorithm for its identification.

The following methods are employed: the comparative analysis of the scientific literature; the systems analysis; and the Pareto analysis.

2. The specifics of B2B online marketing

Business-to-business marketing is about meeting the requirements of other businesses (Saeed 2011). Hague *et al.* (2006) has emphasised the fact that B2B is a more complex decision-making unit in comparison to B2C, which is one of the main problems related to B2B marketing. Another problem associated with B2B marketing is that B2B products are more complex and a B2B marketer needs to have full knowledge and technical expertise in providing technical details to the customers at the time of sale (Hague *et al.* 2006). Wright (2006a) has mentioned the following features of B2B decision-making:

- since it is purchased for the organization, the decision-making structure is complex and the process involves a lot of people;
- decision-making could be delayed, depending on the purchase value;
- rational reasons for ordering;
- high value of product/service, contacts, projects and consulting;
- the final consumer probably will not be a decision-maker;
- since the process time increases, suppliers have access to decision-makers.

P. Hague, N. Hague and M. Harrison (2006) have stated out that B2B decision-making unit is a complex one, or at least has the potential to be so; its complexity depends on the value and risk related to the product purchased (Fig. 1). For example, when ordering low-value and low-risk goods (e.g., staples), the responsibility for purchasing decisions could be delegated to a junior specialist; at the same time, when purchasing the equipment which has a critical importance to a particular business, a special team is formed in order to make a decision and, therefore, the process of decision-making may be delayed. Such type of decision-making unit usually changes, as the specialists leave the team, or the new ones come. The target audience of business-to-business model is an amorphous one, consisting of a group of constantly changing individuals with different inter-

ests and motivations. As a rule, a buyer is interested in a good financial deal; a product manager is interested in a good product capacity; safety experts are interested in a low risk to health; and etc. (only simple functional needs are listed). It should be noted that each member of a decision-making unit has its own psychological portrait, behavioural model and cultural patterns, which may affect purchasing means and ways when selecting a certain product or supplier.

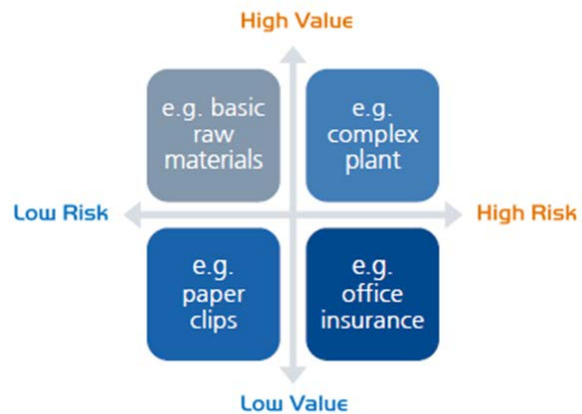


Fig.1. The risk-value purchasing decision matrix (Source: Hauge *et al.* 2006)

The most complex issue concerned with B2B marketing is B2B branding and defining e-space for its advertising (Wright2006b; Bagherjeiran, Parekh 2008; Evans 2009). The main reason this issue receives a comparatively little attention in the academic literature is the fact that industrial buyers are not affected by emotional values corresponding to the brands. Some experts (Bendixen *et al.* 2004; Low, Blois 2002) believe that branding plays no role in B2B marketing because of the impracticality of B2B branding. In contrast, few practitioners (Cretu, Brodie 2007; Michell *at al.* 2001) have outlined the importance of B2B branding because of its positive impact on perceived quality of product or service, such as product's identity, consistent image, and conferring uniqueness.

In this context, the dissemination of the information related to a product or a company in the e-space that could be reached by a target audience is particularly important. The present article, identifying the target e-space for online advertising, states that branding marketing plays a significant role in a B2B business model.

3. The formation of the flow of web site visitors

After the key aspects of B2B marketing have been analysed, it could be useful to analyse the possible channels of reaching the customers and forming

their attitude towards a brand of a particular product or a company.

Chaffey and Smith (2008) have divided the channels of the formation of the flow of the web site visitors into the online and the offline channels. The following are the offline channels: advertising, personal selling, sales promotion, PR, sponsorship, direct mail, exhibitions, merchandising, packaging, word-of-mouth. The online channels and the means they use are the following ones (Chaffey, Smith 2008):

1. *Search marketing*: search engine optimisation (SEO); paid search; pay per click (PPC); paid for inclusion/feeds.
2. *Online PR*: portal representation; social media: blogs, feeds and communities; media alerting services; brand protection.
3. *Online partnerships*: affiliate marketing; sponsorship; co-branding; link-building; widget marketing.
4. *Interactive ads*: site-specific media buys; Ad networks; contra-deals; sponsorship; behavioural targeting.
5. *Opt-in e-mail*: house list e-mails; cold (rented list); co-branded; Ads in 3rd party e-newsletters.
6. *Viral marketing*: pass-along e-mails; word-of-mouth; buzz marketing; generating media mentions.

Some other authors (Davidavičienė *et al.* 2009; Pabedinskaitė, Fiodorovaitė 2011) have also divided website advertising into the offline advertising and the online advertising (e.g., banners, links, online ads, news and discussion forums, e-mail ads).

The type of the classification when the tools and channels for online advertising are distinguished allows defining and forming of the target B2B e-space for advertising, where the advertising channel becomes one of its defining parameters; however, the fact that the advertising channel could sometimes play a role of an advertising tool should be noted. For instance, if a web site is designed to present and promote a particular product, it must be considered as an advertising tool; whereas, if the web site is broadcasting the advertisement (e.g., a pop-up ad, or a banner) of a particular product, this web site must be considered as an advertising channel. Hence, the advertising channel should be treated as an online space where advertisements could be placed, while the advertising tool could be defined as a specific solution for broadcasting of advertisements.

Another important characteristic, that helps to define the target e-space, is the browsing habits of the potential Internet users, which are specified by the areas of interest. User interest is one of the per-

sonal traits attracting researchers' attention to user modelling and user profiling (Nguyen 2009). Yi C. and Ning Z. (2011) have argued that user behaviour, when browsing on the Internet, has certain statistical regularities; moreover, user interests could be clustered, as the most important user interests remain long-term stable. It is possible to identify users' professional and scientific interests according to their interactions in social networks (Abel *et al.* 2011). In order to determine user interests, the approach, by applying which these interests could be identified, should be chosen. There may be distinguished two approaches: explicit and implicit (Kim, Chan 2003). The explicit approach means that the information is collected according to the surveys in which users specify their interests; whereas, the implicit approach requires the employment of automated tracking systems (e.g., the monitoring of the behaviour while browsing or using the web site). Kuang W. and Luo N. (2010) have suggested analysing user interests according to their activity in the e-learning systems, and by using topic maps. Abel *et al.* (2008) have proposed a way of identifying professional user interests by monitoring their interaction in social networks and applying the mechanisms of semantic analysis. Li *et al.* (2008) have offered to combine the methods of browsing history and evaluating behaviour. Li Y., Li F. and Wo Y. (2008) have presented a method allowing both to identify user interests and to form their hierarchy. The monitoring of the browsing history and the evaluation of the content of the web sites visited are the most common approaches to identify user interests (Jansen, Resnick 2006; Lee 2007; Li *et al.* 2008; Yi, Ning 2011; Li *et al.*, 2011). However, all the methods listed above could only be used to evaluate the interests of a certain user (regardless of all unifying features; e.g., profession) and to enable various adaptive systems (contextual ads, advice, etc.) offering the most user-driven information; whereas, a marketing specialist, planning an online advertising campaign, could not rely just on the contextual advertising.

Considering the present case, i.e., determining the target e-space in the B2B communication model, it should be noted that the target unit is not a homogeneous one; therefore, the decision may be affected by the individuals of different professions and of various personal and professional interests. Such combination of interests could be treated as one of the parameters of the space of the targeted activity and may be identified by applying user survey.

The information related to the Internet surfing habits of the target user audience makes it possible

to simulate user behaviour, identify their interests on the Internet and, as a consequence, choose such places for the online advertising which attract the target audience. The areas of user interests on the Internet could be specified by the list of the most visited web sites. It could be assumed that the interests of the individuals belonging to the same profession are similar and are influenced by their activity. Hence, in order to determine the target e-space for advertising, the following two components are used: the interests and the channels for online advertising. In general, the index of economic effectiveness of advertising could be treated as the third parameter of e-space; however, the algorithm for the tree-dimensional e-space identification is too complex.

4. B2B target e-space identification

Considering the B2B features analysed, it could be stated that the target space of a particular activity may be identified by specifying the areas of the interests of the targeted audience on the Internet and the most suitable (for the target audience) advertising channels. During the research, different groups of employees, affecting the B2B process of the product purchase, are identified. The number of groups depends on the specificity of the activity of a certain company. Consequently, the target audience consists of the target groups according to the professional activity; e.g., analysing one particular company, the target audience would be the following: $user_1$, $user_2$, $user_3$ and $user_n$ grouped according to their professional and personal areas of interests (Fig. 2). In this case, the “user” is not equal to the “individual”, as it may refer to several individuals with similar professional and personal interests in the company. Analysing several companies of similar profile, the target audience would consist of consumer group₁, consumer group₂, consumer group₃ and consumer group_n of all companies.

It should be emphasised that, after the advertising channels and interests have been identified, the priority directions are more appropriate to be defined by evaluating their weights according to the significance. It could be assumed that certain areas of interests are more significant than others, as they attract more attention or are shared by several user groups; thus, in order to achieve better results, the evaluation of the significance must be considered. The fact that personal interests are more difficult to be classified, as they are of a greater diversity, should also be noted; whereas, professional interests are more easily defined.

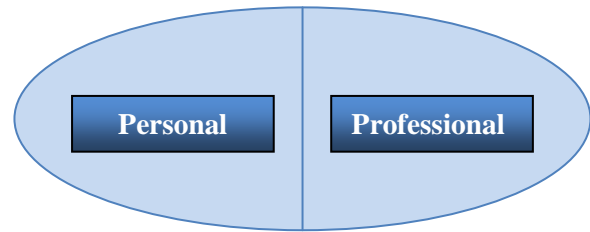


Fig.2. Areas of interests (Source: Davidavičius 2009)

There could be distinguished the following steps of the identification of the target e-space for online advertising:

1. User research;
2. The identification of areas of user interests;
3. The identification of user groups and areas of interests;
4. The identification of areas of interests of market;
5. The identification of online advertising channels;
6. The formation of the two-dimensional target e-space.

It could be appropriate to specify each of the steps.

1. User research. A questionnaire with pre-classified areas of interests and advertising channels is offered to users. The users are asked to rank the areas of interests using a scale from 0 (attracting attention the less) to n (attracting attention the most). The maximum significance of n is determined by the researcher. The advertising channels are rated according to the same principle: by evaluating the intensity of using them from 0 (the less used) to n (the most used).

2. The Identification of areas of user interests. After the topics of the web sites, which are visited by a certain target group of users (e.g., engineers) the most, are estimated, the topic map, i.e., the chart of the topics of the most frequently visited (the most important) web sites, is composed. The chart reveals the areas of the Internet which are the most appropriate for the advertisements of a particular company or its products. After the results of the questionnaire survey are analysed, the topic maps of each group of employees are composed. The map illustrates the significance of each topic according to the frequency of certain areas chosen while browsing the Internet.

3. The identification of user groups and areas of interests. The significance of the topic is estimated by summing up the product of the number of the respondents visiting the web sites of that topic and the index of importance. The topic evaluated with a higher score by the majority of the target group users is considered more important. The significance of the groups of interests is

calculated as a weighted average of the importance of particular interests of the users, where the significances are equal to the number of the respondents indicated that kind of importance:

$$I_{g_i} = \sum \left(\left(\frac{I_{v_n}}{100} \right) * k_n \right) \quad (1)$$

In this formula:

I_{g_i} – the importance of the interest of the target user group;

I_{v_n} – the percentage of the targeted users indicated the importance of the interest;

k_n – the importance of the interest indicated by users.

4. The identification of areas of interests of market. The overall target topic map of a particular company is presented by the whole of the browsing habits of all of the groups (Fig. 3).

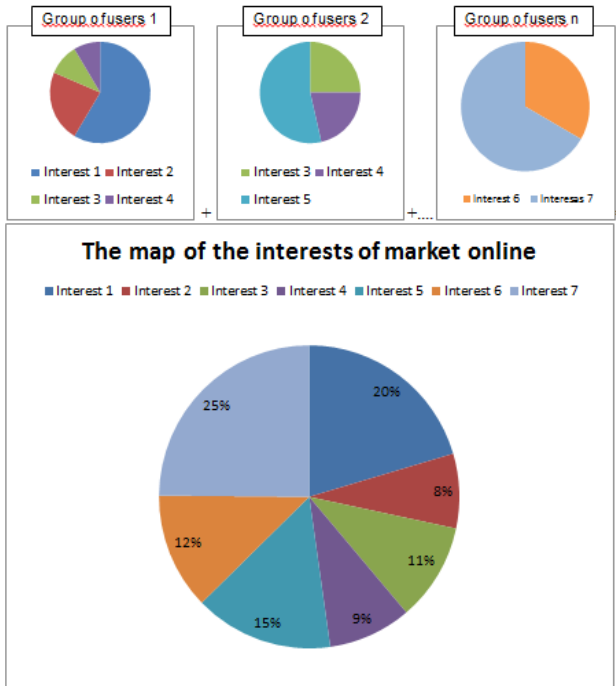


Fig.3. The map of the interests of market online (Source:Davidavičius 2009)

It is obvious that the most important area of interests of the overall topic map is the one the significance of which is the largest for as many groups as possible. The intensity (and the importance) of visiting of web sites of certain areas of interests is calculated as the average of all of the interests of the groups:

$$I_s = \sum \frac{I_{g_i}}{m} \quad (2)$$

In this formula:

I_s – the importance of the interest in the market analysed;

I_{g_i} – the interes of the target user group;

m – the number of the target user groups indicated.

According to this topic map, the decision regarding the relevance of the topics of the web sites chosen for online advertising of a particular product or company, or for web site ads, in order to reach and attract the target user, could be made.

5. The identification of online advertising channels. The analysis of the online advertising channels to be used (appropriate for a particular segment of users) should be carried out along with the second step. The e-channels which are the most suitable to the target user group are evaluated similarly: first, the browsing habits of the individuals are identified, then, the results are combined and, finally, the target map of e-channels of the company is composed. The expediency of the usage of the advertising channel to a group is calculated according to the following formula:

$$K_{g_i} = \sum \left(\left(\frac{K_{v_n}}{100} \right) * k_n \right) \quad (3)$$

In this formula:

K_{g_i} – the means of the target e-marketing to the group;

K_{v_n} – the percentage of the users indicated the importance of the channel;

k_n – the importance of the mean of e-marketing indicated.

The whole of the browsing habits of the groups influences the overall map of the target e-marketing channels. The map of the target e-marketing channels is formed by estimating the importance of each of them, which could be expressed by the following formula:

$$K_s = \sum \frac{K_{g_i}}{m} \quad (4)$$

In this formula:

K_s – the importance of the channel of e-marketing;

K_{g_i} – the e-marketing channel of the target user group;

m – the number of the target user groups indicated.

6. The Formation of the two-dimensional target e-space. The target e-space suitable for broadcasting advertisements to users is determined by areas of interests and advertising channels (Fig. 4). The two-dimensional space, in which the areas of the target space grouped according to their im-

portance (starting from the most important one) are presented by the advertising channels and user interests, is formed by composing the interests and the advertising channels according to their importance on the two axes. When dealing with a particular channel (e.g., the first one), there could be selected not just one (the most important) user group of interests but a few ones by employing a Pareto approach.

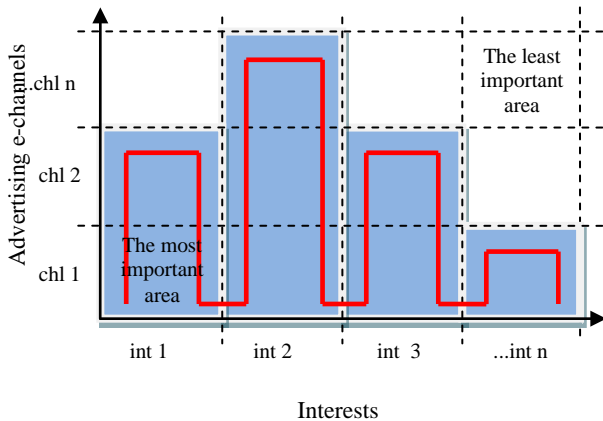


Fig.4. The matrix of the two-dimensional target e-space (Source: compiled by the authors)

Therefore, in the two-dimensional e-space, the target e-space for advertising, which could be used for planning online advertising campaigns and optimising marketing decisions, is formed.

5. Conclusions

The majority of the models suggested the effectiveness of online marketing are focused on the evaluation of the effectiveness of the web sites; however, in addition, the attention should also be paid to the employment of the appropriate means and areas for online advertising.

In case of business-to-business (B2B) model, when making a decision concerning the purchase of a certain product or service, depending on the price and risks related to it, the results of the decision may be influenced by a group of different specialists with their own personal and professional interests and motivations. The analysis was carried out and, as a consequence, the following factors defining the target e-space for online B2B advertising were identified: interest areas and advertising channels.

According to the research carried out, the algorithm of the formation of the target e-space, which allows identifying the target e-space for B2B online advertising, was proposed. The following six steps for the formation of the e-space were suggested: user research; the identification of areas of user interests; the identification of user

groups and areas of interests; the identification of areas of interests of market; the identification of online advertising channels; and the formation of the two-dimensional target e-space.

The model of the behaviour of the users defined by the target e-space could be used both for the decision-making related to the future advertising campaigns and for the evaluation of the effectiveness of the existing solutions for online advertising.

The algorithm for the identification of the target e-space for advertising formed could also be applied to B2C communication.

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