

Evaluating Effectiveness of Bank Advertising in the Internet: Theory and Practice

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Abstract: In the article the problem of evaluation of bank advertising effectiveness in the Internet is investigated both theoretically and practically and the conceptual framework of online advertising is analyzed with the use of different advertising methods. In particular, the work mostly focuses on the analysis of “traditional” advertising methods (banners, text message advertising, etc.). Special attention is given to the economic and psychological effectiveness of advertising. Various methods and approaches to evaluation of advertising effectiveness are considered, their advantages and disadvantages are identified and possibilities of their adaptation and usage in financial sphere are ascertained. The database components that serve to determine economic efficiency of advertising are determined. The applied tools for evaluation of effectiveness of online advertising of banking products and services are examined. Practical recommendations for improvement of the mechanism for evaluation of online advertising effectiveness in a bank have been developed.

Key words: Bank • Advertising • The Internet • Effectiveness • Profitability • Returns • Communications • Site

INTRODUCTION

In unstable global financial markets the necessity to attract and retain consumers in the banking sector becomes especially topical. One of the perspective tools for increasing economic efficiency of financial institutions is advertising.

With the advent of the Internet the trends to the information society development in many countries of the world have become ever more apparent. This directly influenced various spheres and reached human relations. The Internet is first of all realized through the technologies and technical tools whose capabilities are determinant for the process of interaction between people in the network. One of the key roles in the integration of the Internet users belongs to advertising. The integration through advertising serves as a well-ordered interaction between individuals and groups of people based on the relations of relative autonomy and dependence of the participants; hence, the purpose of advertising, i.e. to

stimulate exchange operations, comes into the first place. In general, the online advertising is a purposeful public communication based on the interaction between its subjects in the Internet environment with the view of livening up their interests and activities in relation to the advertising object, on the one hand and gaining profit and goods, on the other hand [1].

Rapid growth of the Internet advertising popularity is explained by the fact that using various means, forms and methods of advertising both large-scale companies, small businesses and individual users of the Internet may reach the set goals in a very efficient manner. The means, forms and methods of online advertising communication are the integral components of the mechanism of Internet advertising functioning. The advertising means with all due specificity of the Internet are text, graphics, photos, video and audio. The forms of online advertising are divided into the external and internal ones depending on the legal ownership of the advertising means and into mass and personal ones.

Table 1: World's best Internet banks in Europe in 2012. [2]

Bank	Country
Piraeus Bank	Cyprus
Danske Bank	Denmark
Piraeus Bank	Greece
Bank of Valletta	Malta
Activo Bank	Portugal
Garanti Bank	Turkey

The growing number of methods in the online advertising may be divided into three groups depending on historical practice and communication principle.

The first group includes “traditional” advertising methods-the complex measures of purposeful intercommunication with preliminary stratified audience through informing.

The second group consists of “non-traditional” advertising methods where the audience is a participant, as a rule, interacting with the network actor and/or user.

The third group takes in methods that may be united under the conventional name “quasi-advertising”, namely: site promotion through search engines and Internet spam. In contrast to two previous methods the interaction with the audience is achieved by the measures where the technical aspect is primary.

At the modern stage of the Internet development the traditional advertising methods remain the most often used in the banking sphere. According to the publisher of Global Finance Joseph D. Giarraputo: “The Internet has transformed the way many consumers and most businesses bank. The continuing improvements in Internet offerings represented by 2012 year entries show that more significant Internet banking developments are

still ahead of us» [2]. The potential of media and contextual advertising has been valued by many banks all over the world. In Table 1, according to Global Finance research, there are European banks that most actively use network resources and realize functional and effective advertising campaigns in the Internet that increases their efficiency and profitability.

According to bank marketing specialists, about 70-80% of the Internet users abroad scrutinizing bank services and products address their inquiries to search engines rather than to offices of concrete banks. These high figures are explained by the easier process of obtaining information in the Global Network and by lesser time to be spent for data reading than for visiting two or three banks and clarifying details of their proposals. According to Uniastrum Bank, 28% of clients want to see advertising of bank services in the Internet. Among them 11% of respondents mentioned that advertising should be placed in the search engines, other 11% pay attention to advertising on specialized financial portals and only 6%-on entertaining and information sites [3]. More and more Runet users prefer receiving information on the banks and their products from the Network (Fig. 1).

Undoubtedly, such intensification of online advertising results in cost increase. In 2011 the average share of the network projects in the budgets of credit institutions in Eastern Europe exceeded 25% [4]. According to the data of the world-known Consulting Group Kantar Media, costs of online advertising in American credit institutions are on the 4th place in Top Ten Advertising Categories and from 2009 to 2011 they increased by 21%, having reached the notch of 8 778.7 Mln. USD. More detailed information is presented in Table 2.

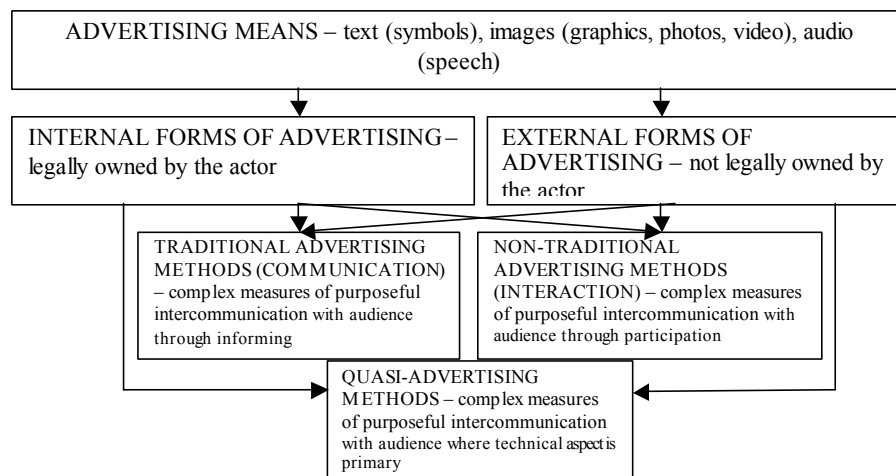


Fig. 1: Means, forms and methods of online advertising communication

Table 2: Top Ten Advertising Categories: 2009-2011 (Millions)¹

Rank	Category	Full Year 2010	Full Year 2009	Change %	Full Year 2011	Full Year 2010	Change %
1	Automotive	13,026.0	10,869.2	19.8	13,890.4	13,062.2	6.3
2	Telecom	8,751.5	8,417.6	4.0	10,019.5	9,637.4	4.0
3	Local Services	7,991.7	7,474.6	6.9	9,573.3	8,922.1	7.3
4	Miscellaneous Retail	7,708.8	7,055.7	9.3	9,095.9	8,778.7	3.6
5	Financial Services	7,689.7	7,254.8	6.0	8,649.0	9,180.4	-5.8
6	Food and Candy	6,672.3	6,228.6	7.1	6,497.7	6,155.9	5.6
7	Personal Care Products	6,161.0	5,515.2	11.7	6,354.1	6,644.3	-4.4
8	Direct Response	6,143.5	6,521.1	-5.8	6,155.7	6,119.0	0.6
9	Restaurants	5,652.8	5,528.3	2.3	5,874.7	5,627.9	4.4
10	Pharmaceuticals	4,327.8	4,716.0	-8.2	5,519.0	4,862.7	13.5
Total		74,125.1	69,581.0	6.5	81,629.2	78,990.7	3.3

In the context of these tendencies numerous methods of online marketing communications aiming at reaching the banks' objectives appear to be a problem in terms of determining their effectiveness and selecting optimal means for information dissemination.

Analysis of Investigations and Publications: Specific features of advertising activities were studied in the researches by Little John D.C. [5], Farrell D. [6], Beinhocker E.D. [7], Greenberg Å. [8], Manzur, E. [9], D. Paton. [10], Herbert Newton Casson [11], Fine B., Leopold E. [12], *et al.* Nevertheless it should be noted that evaluation of advertising effectiveness in the majority of works is considered in general context without specification of economic subjects. Besides, by to date there has been no flexible, adaptive and consistent methodology that would allow comparing the made efforts with the final results of advertising activities. Therefore, despite all available material it should be noted that the conceptual bases that would clarify the content and specificity of the bank tools for evaluation of online advertising effectiveness have been developed insufficiently and require further specification and concrete definition.

General Scientific Aspects of Effectiveness of Traditional Methods in Online Advertising: In terms of marketing it is conventional to think that advertising effectiveness depends on the range of coverage of different consumer groups and cost of advertising campaigns [13]. Economists define advertising effectiveness as a change in profit resulted from the performed advertising measures [14]. Peculiarities of advertising bank products and services are determined by their uniqueness, namely by their "intangible" character and inseparable connection between the clients' trust and stability of banking institution. Based on this let us formulate the author's

definition of effectiveness of bank advertising using traditional methods (information on sites, messages and banners in external resources, etc.). Thus, the bank advertising effectiveness is the quality of information reporting to potential and existent consumers during an advertising campaign aiming at forming the bank's image and awareness of the bank products and services as well as at gaining certain economic result determined before and after the transmission of advertising message.

Beginning evaluation of the effectiveness of bank online advertising it is necessary to take into account that the market of bank services is a branding one that in turn determines the specificity of advertising campaigns, their successfulness and consumer receptivity.

In our opinion it is expedient to evaluate the bank online advertising at the following levels: evaluation of effectiveness of the advertising policy in the Internet; evaluation of effectiveness of the individual advertising campaigns in the Internet; evaluation of effectiveness of the individual advertising sites involved in the advertising campaign; evaluation of effectiveness of individual components of the advertising campaign. For every specified level the criteria of effectiveness are chosen.

Economic Efficiency of Advertising: The economic efficiency of online advertising is evaluated on the degree of its influence on financial indicators of the bank and assumes calculation of the value of the economic gain per cost unit and its comparison with the normative value. There are different approaches to determination of economic efficiency of advertising. So, Stankova P. [15] distinguishes the following methods: evaluation of sales volume increase before and after the advertising campaign; analytical method based on the advertising cost correlation with the sales volume; experimental method using test and control markets.

¹Compiled by authors from <http://kantarmediana.com>

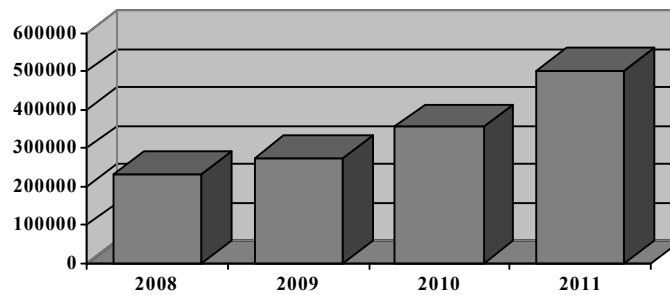


Fig. 2: Daily traffic of bank sector site in Runet²

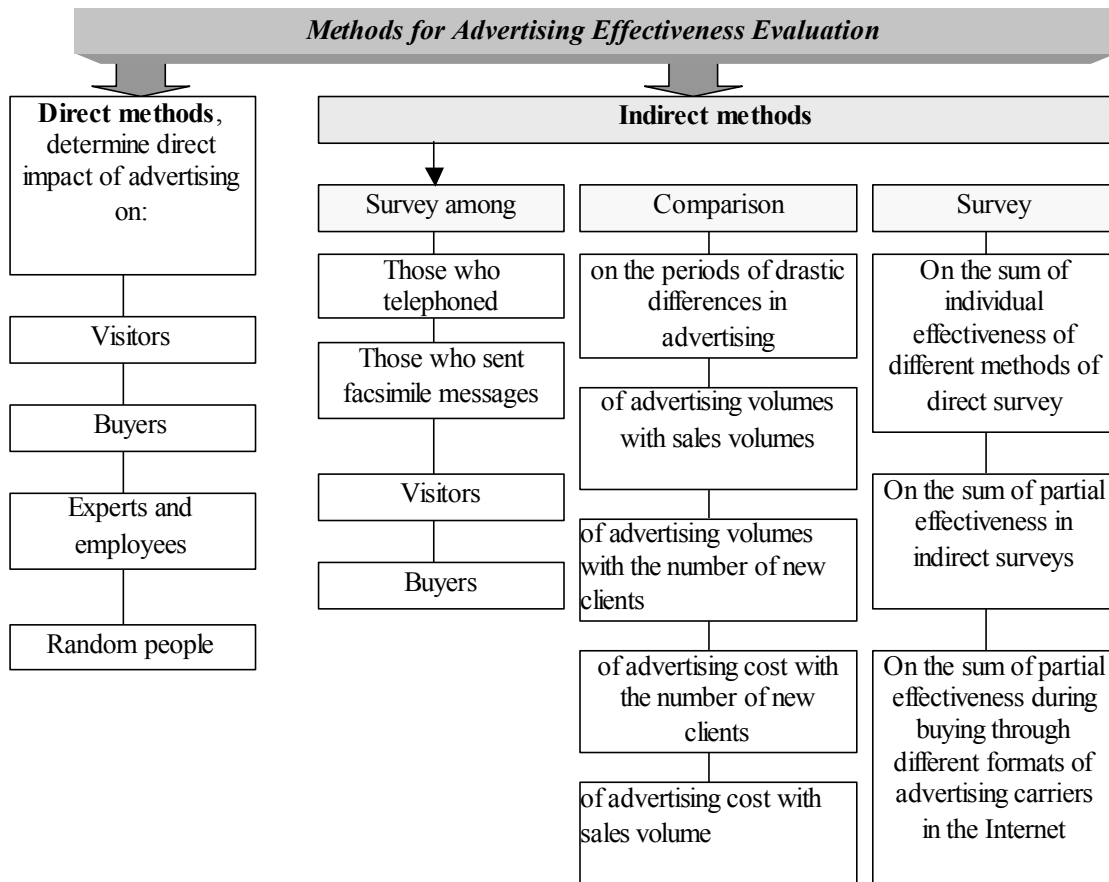


Fig. 3: Classification of the means for advertising effectiveness evaluation

A. Pergelova, D. Prior and J. Rialp, [16] offer statistical and dynamic models that allow calculating the economic result from the advertising activities. However, these models are difficult for application for online advertising of bank services and products.

X. Luo, P.J. Jong [17], L.F. Bright and T. Daugherty [18] developed the classification and divided all methods for evaluation of economic efficiency of advertising into direct and indirect ones. In Fig. 2 the

paradigm of the described methods is presented schematically.

According to the authors the noteworthy is the point of view of Danish research group headed by Flemming Hansen [19] and Israel researchers: I. Idris, M.S.A. Yajid and A. Khatibi [20], who provide grounds for the usage of the following indicators for evaluation of economic efficiency of advertising:

- Advertising profitability:

²Compiled by authors from <http://rumetrika.rambler.ru>

$$R = \frac{P}{U} \times 100\%$$

where, R-advertising profitability, %;

P-profit gained from product and services advertising;

U-cost of products and services advertising.

- effectiveness of advertising costs compared with competitors:

$$CEI = \left(\frac{V_i}{V_j} \right) \times \left(\frac{E_i}{E_j} \right)$$

where, CEI is cost efficiency;

V_i V_j -sales volumes of enterprises i and j for a certain period of time;

E_i E_j -advertising costs of enterprises i and j for the same time period.

The considered indicators are to some extent valuable for the analysis of advertising activities of a banking institution in the network. However, similarly to the previously considered methods the developments of Danish and Israel researchers are not without their disadvantages. These are first of all related to substantial financial and labor costs.

Summing up the analysis of economic efficiency of advertising it should be noted that special emphasis should be placed on the information base that includes accounting and statistical data reflecting the dynamics of financial and quantitative indicators that in turn are compared with the advertising costs.

Psychological (Communicative) Effectiveness of Advertising: Psychological effectiveness determines the efficiency of a concrete advertising message in terms of informing the targeted audience or forming the opinion on the proposed product (service) required for the advertiser. The effectiveness is first of all evaluated by the loyalty of potential bank customers and their priorities in on-coming selection of a particular financial institution for the advertised service purchasing. For evaluation several methods are used, namely: survey, expert evaluation and a focus group method [7].

For more than a decade representatives of scientific community have been trying to develop the generalized theoretical model to describe the efficient structure of psychological impact of advertising. Today the most well-known methods are the models AIDA, AIMDA, DAGMAR, FCB and DIBABA.

David W. Schumann and Esther Thorson made an attempt to adapt the model AIDA to virtual environment [21]. In our opinion the attention should be drawn to the developments of Greek scientists (Fouskas K.G., Kokkinaki F., Papakyriakopoulos D., Vrechopoulos A. and Kopanakis I.) headed by Drossos D.A., who proposed the behavior model of the Internet user interaction with marketing information; this model consists of the following stages: informing, involving, contacting and reviewing [22].

The advantage of the methods developed by David W. Schumann and Drossos D.A. and adapted to the Internet is consideration of both communicative and economic indicators of advertising effectiveness as applied to every specific stage of interaction with the user. Among the disadvantages impeding the use of these developments in the banks there are lack of preliminary evaluation of different information carriers and methods for its distribution.

The Theoretical Approaches to Evaluation of Economic and Psychological Effectiveness of Online Advertising Adapted for the Banks' Needs: According to the results of the performed analysis of specialized literature there is a drastic shortage of the methods determining effectiveness of the online information brokers applied as an instrument for targeted audience coverage. Today there is still a number of banking institutions who are represented in the network by the page on the virtual broker website and do not have a proper corporate web resource. To compensate this deficiency the authors propose, first of all, to analyze the advertising effectiveness depending on the distribution and secondly, to apply the improved methods for determination of the targeted audience coverage in the case when the banks use the sites of online information brokers.

If site statistics of the information broker is accessible to the public, the coverage of the targeted audience may be determined by the following formula:

$$IM = \frac{Q_{pp}}{\sum_{i=1}^n Q_k} \times 100\%$$

where IM is targeted audience coverage on the broker site;

Q_{pp} -number of users of the bank webpage on the online broker website;

Q_k -number of users on the webpage i of the considered bank-competitor.

Table 3: Comparative characteristic of mathematical models for evaluation of advertising effectiveness

Name	Advantages/Disadvantages
G.Yul Model	<i>Advantages:</i> the leaders receive an opportunity to formulate their requirements and recommendations on the correlation of costs, percentage of potential buyers to be subjected to advertising and percentage of customers who will become regular buyers of products and services. <i>Disadvantages:</i> the market share for a company control is determined by the leaders intuitively in the beginning of calculations.
Vidal-Wolf model	<i>Advantages:</i> possibility to describe interrelation of three factors: appropriations for advertising, sales volume and its change under the influence of advertising. <i>Disadvantages:</i> the model does not allow clear calculation of other marketing variables like price and sales system.
ADBUDG	<i>Advantages:</i> the model parameters may be determined on the basis of expert opinions or objective information; the model is based on the market share and thereby, considers interdependence between the company and its competitors.
Danaher-Rust model	<i>Disadvantages:</i> during determination of the minimal GRPs level there may be rather large errors that finally influence the accuracy of efficiency calculation.

Evaluation of possible coverage of the targeted audience at marketing information distribution on a broker's web resource may be performed by the following formula:

$$IM_p = \frac{\bar{U}}{Q_z} \times 100\%$$

where IM_p is the assumed degree of targeted audience coverage;

\bar{U} -the averaged number of the users of web pages where the targeted audience is concentrated;
 Q_z -total number of users at competitors' sites.

In turn the averaged number of unique users of the pages that concentrate the targeted audience should be calculated as follows.

$$\bar{U} = \frac{\sum_{k=1}^K Q_k}{n+1} \times 100\%$$

Applied Instruments for Evaluation of the Effectiveness of Online Advertising of Bank Products and Services: Consider one more large group of research methods applicable for the analysis of advertising activities, namely the mathematical models for decision-making. The ground for using these models is inability of a person to independently evaluate and consider the large number of factors. Most often for evaluation of marketing communication effectiveness the following models are used: G.Yul model; Vidal-Wolf; ADBUDG; and Danaher-Rust model [23]

All the models have their advantages and disadvantages; the results of comparative analysis of the models are given in Table 3.

The data obtained during investigation allowed developing practical recommendations on the methods

and approaches to evaluation of the effectiveness of bank online advertising. The authors of the article believe that it is expedient to add the value of online advertising productivity to the existing indicators of online advertising effectiveness:

$$P_i = R_i \div V_i$$

where R_i is the amount of products sold to online users as a result of the viewed online advertising for the certain period of time;
 V_i -the amount of costs for online advertising for a certain period of time.

If a potential customer views the advertising but makes a purchase in some other place of a real market rather than through the Internet, the previous formula takes the following form.

$$P_i = R_i \div V_i + R_q \div V_i$$

where R_q is the amount of products sold to the customers in the real market as a result of online advertising for a certain period of time.

The above presented material gives all grounds to state that the efficiency of advertising costs will increase only if an increase in the advertising volume is accompanied by respective increase in additional profit. The advertising costs reduce returns from the service sale decreasing the interest margin.

$$V\% = \frac{V \times C_T \times t}{100 \times 360}$$

where $V\%$ is the total volume of distribution;
 C_T -interest rate;
 t -period of distribution (data storage).

The advertising costs are added to (for passive operations) or deducted from (for active operations) the obtained value. The following value is used to calculate the effectiveness rate resulted from the advertising costs.

$$C_T = \frac{V_o \times 100 \times 360}{V \times t}$$

where V_i is total volume of costs (for passive operations), or incomes (for active operations).

Summing up it should be noted that the changes, clarifications and improvements proposed by the authors will allow:

- Evaluating the necessity of online advertising for specific financial institution or concrete type of products (services) and determining the popularity of online advertising among different targeted groups;
- Analyzing the effectiveness of advertising policy in the Internet by studying consumers and potential clients' awareness on the bank services before and after the advertising campaign;
- Ranking the individual formats of advertising carriers in the Internet on the degree of their effectiveness and expediency depending on consumers' requirements, specificity of the proposed products and proper financial capabilities of the bank;
- Selecting the best possible option for online advertising of products and services on the basis of the performed marketing analysis.

CONCLUSIONS

The online advertising in modern society is a multifunctional phenomenon. It performs a number of universal economic functions peculiar to any advertising activity and directed to the increase in demand for products and services, market and turnover development and etc. At the same time development of this phenomenon requires investigations in order to understand the effect of online advertising, in particular, on consumers of products and services and on the effectiveness of this communication method for the advertisers. This problem is especially acute for banking institutions. It should be noted that the authors divide the advertising methods into three groups depending on historical practice and communication principle:

1-“traditional” (communicative), 2-“non-traditional” (interactive), 3-“quasi-advertising”. At present during serious competition, in selection of optimal methods for reaching the advertising campaign objective the “traditional” (communicative) methods take a leading place as the most frequently used advertising instruments. Therefore, the authors of the article first of all focused on the analysis of advertising campaigns realized with the advertising methods attributed to this group.

The investigation of the concepts and approaches presented in the literature allowed concluding that numerous issues related to selection of online advertising campaign and evaluation of its effectiveness, especially for the banks, have been insufficiently developed and weakly mathematically formalized.

The current methods for evaluation of economic and communicative effectiveness of advertising should be adapted to the conditions of bank functioning and to requirements of the clients of financial institutions, they should also consider the features and peculiarities of the advertising subject.

To determine the total effectiveness the bank advertising in the Network should be evaluated on several aspects at once. This class of problems is characterized by multidimensionality of the investigation subject and stochasticity of its characteristics. Hence, during their solution it is expedient to apply economic and mathematical modeling that would increase efficiency of decisions in the field of bank advertising distribution in the Internet. The recommendations developed by the authors:

- are first of all devoted to evaluation of advertising campaigns realized with the use of “traditional” advertising methods; although it does not impede their usage for evaluation of the efficiency of advertising campaigns applying methods included into other groups.
- take into account distinctive features of the banking sphere and allow obtaining trustworthy results during evaluation of effectiveness of online communication with the targeted audience. This in turn provides an opportunity to optimize the advertising budget that leads to the increase in the advertising campaign profitability and subsequent increase of the clients' base and incomes; as a result the bank has competitive advantages in financial markets.

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