

LEASECON 2020
International Conference «Land Economy and Rural Studies Essentials»**KEY METRICS FOR ASSESSING EFFICIENCY OF ONLINE
MARKETING COMMUNICATION**

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m.perfilova@e-promo.ru**Abstract**

The article discusses the system of indicators that play an important role in the management of promotion on the Internet, allow one to quantitatively analyze activities in the field of communication with customers and evaluate the effectiveness of promotion tools. The article discusses such indicators as advertising contact, opportunity to see (OTS), share of advertising exposure, frequency, average frequency of advertising exposure, gross rating point (GRP), target rating points (TRP), cost of advertising contact, cost per mille (CPM), net reach, effective reach, rating point. In addition, the article describes web-based metrics used in digital marketing: page views, click-through rates, cost per click (CPC), cost of order, visit, cost of attracting one customer, bounce rate (failed purchases), conversion rate (CR), cost per install (CPI), cost per lead (CPL), cost per sale (CPS), average order value (AOV). Evaluation of effectiveness or KPI (Key Performance Indicator) depends on the goals of advertising campaigns, which can be to increase brand awareness in the market, collect contacts of potential customers, increase the number of hits or directly sell through the site / application. The article lists KPIs depending on the goals of the advertising campaign. Advertising agencies or digital marketers select tools and plan media metrics based on the goal. The article describes the following types of performance indicators: predicted, real / actual, industry data, site data, historical data of the advertiser themselves. There are also several examples of promotion from the practice of the E-promo marketing agency (Moscow), based on performance indicators.

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1. Introduction

In recent years, the database-based marketing approach has become widespread. Measurable progress indicators have become a key to success in digital marketing. Marketers need to understand the range of media indicators used to evaluate the effectiveness of Internet communication, understand their pros and cons, as well as advantages and disadvantages of each indicator.

In such circumstances, marketers need a universal reference material, which they can use to quantify the results of advertising campaigns. In this article, we systematized the main media indicators for evaluating the effectiveness of Internet communications.

A scorecard is a set of metrics that help measure a trend, dynamics, or characteristic in quantitative terms. In their book "Popular Lectures and Solutions" William Thomson and Lord Kelvin said:

When you can measure what you are talking about and express it in quantitative terms, you have some idea of this subject; but when you cannot make perform a measurement and describe the subject by means of numbers, your knowledge is scarce and unsatisfactory (Farris et al., 2009, p. 2).

But since then, much has changed. Specialists should be able to choose the metrics of marketing activities, calculate and explain them, understand how they affect each other.

"... Each indicator, regardless of whether it is used to influence behavior, evaluate a future strategy, or simply conduct an inventory, will have an impact on practical actions and decision making." "If you can't measure it, you cannot handle it." (Farris et al., 2009, p. 2).

Traditionally, efficiency is understood as "achieving results with the lowest possible costs" (Black, 2000, p. 103). When it comes to the effectiveness of marketing activity, the task arises to form an idea of the "contribution of marketing and (or) its individual tools to the final results of the company's activity - a link with financial indicators and indicators used at the corporate level (Egorova & Volkova, 2010, p. 112). Nevertheless, assessment of the effectiveness of Internet marketing remains a growth zone in many Russian and foreign companies, despite the greater number of measurable parameters and the ability to accumulate and analyze data arrays on-line. This is confirmed by the words of the head of the electronic marketing department of Kompleto marketing group Vladimir Davydov (2012): "the market is burdensome ... one misfortune: the lack of an economic evaluation of the effectiveness of the measures taken".

2. Problem Statement

Evaluating the effectiveness of advertising campaigns on the Internet helps determine the correctness of the chosen course of advertising policy, as well as the feasibility of investing in advertising activities.

However, due to the lack of a clear understanding of the indicators system that allow you to quantify the activities in the field of communication interaction with customers and evaluate the effectiveness of promotion tools, it may be difficult to place advertisements on the Internet. The question "what indicators can I trust when planning online advertising campaigns?" will never lose its relevance.

A metric system is a set of metrics that help you measure a trend, dynamic, or characteristic in quantitative terms. In this article, we have systematized the main media indicators for evaluating the

effectiveness of communications on the Internet, and shown examples of their use in the practice of the E-promo marketing agency (Moscow). Thus, using the system of indicators provided in the article, you can find out from the results of an advertising campaign whether the necessary visitors come to the site, whether they perform the actions we need. Performance can be evaluated based on both the number of users and the results of their behavior on the site.

3. Research Questions

The subject of this article is a system of indicators that allow evaluating the effectiveness of Internet communications. The use of these indicators implies the ability to choose the right metrics for marketing activities, calculate and explain them, and understand how they affect each other.

4. Purpose of the Study

The aim of the study is an attempt to systematize the terms of advertising performance, web-based metrics used in digital marketing, to define KPI depending on the objectives of the campaign, as well as show the use of some indicators in the practice of the advertising agency. These metrics can be used to evaluate the results of advertising campaigns in quantitative terms, which will determine the effectiveness of advertising in relation to the formation of consumer interest and sales volume.

5. Research Methods

The generalization and description methods were applied. The combination of these methods made it possible to identify a system of indicators that play an important role in managing Internet promotion, allowing a quantitative analysis of company-customer interaction activities, as well as to evaluate the effectiveness of promotion tools.

Sources used for the analyses were eLIBRARY.ru, electronic resources, works by Russian and foreign scientists, cases of the marketing agency E-promo (Moscow) and Deloitte insights (2020).

6. Findings

Consider media indicators that allow you to estimate how many indicators an advertising campaign can cover, the frequency of views, and the cost of each attracted user. To this end, we will provide a list of terms for advertising indicators such as an advertising contact, an impact, an OTS, rating points, GRP, net coverage, effective frequency and CPM (table 01).

Table 1. List of terms of advertising indicators

Indicator	Structure	Note
	Advertising contacts = OTS = exposure	
Advertising contacts	An advertising contact is established each time you view an advertisement. It is calculated as	Contacts do not take into account the quality of views. In this regard, a passing impression will have a lesser

	coverage multiplied by the average frequency of advertising exposure.	effect compared to a thorough study. Contacts are called impacts or viewing probability (OTS). OTS can be obtained by adding the absolute values of all impacts on the audience of each of the individual advertisements. For example, during the campaign, the ad was placed in 2 newspapers 2 times. The audience of the 1st newspaper is 15,000 people, the audience of the 2nd newspaper is 30,000 people. $OTS = 90,000$ $(15,000 * 2 + 30,000 * 2)$ The share of advertising exposure quantifies the “presence” of an advertisement for a particular product or brand in the entire market.
OTS (opportunity to see)	The number of times an audience could see a specific advertisement (in absolute terms)	
Share of advertising exposure (%)	$\frac{\text{Product (brand) advertising (RUB)}}{\text{total market advertising (RUB)}} * 100\%$	
Effective frequency	How many times a particular advertisement must be presented to a particular person within a given period in order to trigger the desired response	Marketers often take an effective impression frequency equal to three. This assumption must be verified.
Average frequency	Advertising contacts / coverage. The average number of times a person receives an advertising message given that he or she has actually been exposed to the advertisement.	The frequency of advertising exposure is determined for those people who have seen the advertising message.
GRP (Gross Rating Point)	The sum of rankings of all advertising messages within the advertising campaign	To calculate the GRP of an advertising campaign, you need to know all the rankings of advertising messages. The ranking is a percentage of the target audience who was in contact with the advertising medium at a given time in relation to the entire target audience, which had the opportunity to see it.
TRP (target rating points)	An analogue of GRP calculated for the target group.	TRP is established in relation to the predetermined target population (for example, men or women in the target audience). Sometimes TRP is neglected and the target rating is designated as GRP indicating the target audience, e.g.: GRP (F20-40).

Ad Contact Cost	Advertising costs / number of advertising contacts	As a rule, only a small part of the estimated contacts goes into the group of buyers, however, the indicator is a good guideline for assessing the total costs of marketing. It makes it easier to work with the final values of expenses in comparison with indicators that could be presented based on the costs of one contact. It is used to compare the costs of an advertising campaign, for example, in various media.
CPM (cost per mille)	Advertising costs / number of advertising contacts (thousands).	The net coverage is equivalent to the simple coverage. It determines the number of viewers who have seen the advertising message. It is often displayed in Euler-Venn diagrams.
Net coverage	The number of people exposed to the advertising message or the advertising campaign.	The effective frequency metric is the most important assumption in calculating this metric.
Effective coverage	The number of people who received an advertising message with a frequency equal to or greater than the effective frequency of advertising exposure.	For example, a television show with an average rating of 2 points covers 2 percent of the total population
Ranking point	It is equivalent to coverage by means of distribution of advertising and represents a share of the population.	

Consider the web-based metrics used in digital marketing (Table 02).

Table 2. Web-based indicators

Indicator	Structure	Note
Page views	Number of page views.	It is the number of web pages viewed. Hits are the number of views multiplied by the number of files on the page, which makes them both an indicator of page design and traffic.
Ratio of clicks	Number of clicks on banners (clicks) / advertising contacts.	Interactive web ad metric. It has strengths, but clicks are a step on the path of transformation into a purchase, and an intermediate goal of advertising.
CPC (cost per click)	Advertising Cost / Number of Clicks.	In order to calculate all three indicators, the same formulas are used: the cost of advertising should
Order cost	Advertising Costs / Number of	

	Orders	be divided by the number of clicks, orders or attracted customers.
Cost of attracting one client	Advertising costs / number of attracted customers	Customer's life values are useful. It helps marketers to determine whether customers are worth the money spent on their attraction.
Visits	Number of individual views of the website	By comparing visits to page views, marketers can determine whether visitors study website pages.
Visitors	The number of individuals who visited the website in a given period. Cookies are used for tracking	Used in determining the type of traffic generated by the site - a small number of loyal followers or a lot of random visitors. An important factor can be the period during which this indicator is measured.
Failure rate (failed purchases)	Share of new but incomplete purchases (share of abandoned baskets)	It can warn about poor-quality design of the website by determining the number of potential customers who lost patience during the transaction or were unpleasantly surprised by hidden costs
CR (conversion rate)	The total number of visitors / users who completed the desired action (bought, downloaded, signed up for newsletters, etc.)	This parameter determines how many users became customers, i.e. bought goods or ordered services.
CPI (cost per install)	Advertising costs / number of users downloading the application.	The CPI model is attractive, the advertiser pays only for real conversions and the campaign's budget is spent more efficiently.
CPL (cost per lead)	Advertising / lead costs	This indicator is used by B2B companies, as well as other organizations where it is possible to accurately measure the cost of a service only after the sales.
CPS (cost per sale) or PPS (pay per sale)	Cost of advertising / number of orders	This is the pricing system for Internet advertising, where the site owner receives payments based on the number of sales directly related to advertising. CPS is part of the CPA (cost per action) model.
CPA (cost per action)	Payment to the site owner is made for the targeted action of users: for purchasing, registration, etc.	This traffic monetization model is the most interesting and demanded form of cooperation between the site owner and the advertiser
AOV (average order value)	Number of purchases	It is considered an important metric

in online commerce, advertising and Internet marketing. The indicator allows you to calculate the profitability of investments in terms of the number of orders, rather than goods sold. For example, in one order there can be several goods. The AOV metric can help find out the average cost

On the one hand, many of the advertising terms, such as "advertising contact" are used to describe and define various types of advertising. On the other hand, terms such as "click" are unique to the Internet. Therefore, certain web-based metrics are needed, since the Internet, which serves as a means of communication and a direct sales channel, can provide real-time feedback on the effectiveness of advertising.

An assessment of effectiveness or KPI (Key Performance Indicator) depends on the goals of advertising campaigns, which may be enhancement of brand awareness in the market, collection of contacts of potential customers or direct sales through the website / application (Table 03).

Table 3. KPI depending on the objectives of the advertising campaign

Advertising campaign goal	KPI
Increasing target coverage	-CPM
Increasing brand / service recognition in the market	-coverage
Interaction with the site, application	-CPI – installation of the application
	-CR – website conversion
	- user engagement (bounce rate, number of pages viewed, time on site)
Increase in the number of calls / potential customers	-CPA - cost of the target action
	-CPL - contact cost
	-number of contacts
Increase in the number of sales through the site / application	-CPS - cost of sales through the site
	-AOV – average cost
	- cost of attracting one client

Based on the goal, advertising agencies or digital marketers select tools and plan media indicators. To determine the performance indicators, it is necessary to analyze not only the brief data (region of promotion, description of the target audience, market situation and competitors), but historical and statistical data on the site.

Performance indicators can be divided into several types:

- projected indicators (budget, geography, target audience, purpose);

- real / actual indicators: indicators achieved during the advertising campaign;
- industry data: aggregate indicators of a segment, as average for the market;
- site data: data on a specific site (for the same location Yandex and Google show radically different statistics data);
- historical data: indicators that the advertiser has already achieved.

At the planning stage, it is important to consider the media indicators of the industry, sites and data of the advertiser, so that the forecast values are closest to the current market situation. In conducting advertising campaigns, it is necessary to monitor statistics in advertising cabinets and control advertising expenditure, compare them with forecast values to understand the results of specific platforms and tools. If the current performance of a site or an instrument is much higher than the predicted one (by more than 10%), you should consider options for optimizing this instrument or turning it off and finding a more effective one.

Here are some examples of the advertising campaigns of the marketing agency E-promo (Moscow)

Example 1

Client: The BestVey car service network.

Client description: federal network of car services-discounters servicing foreign cars, 14 services in 8 regions of Russia.

The goal is to increase the number of applications for services whose cost is 930 rubles and less (CPA <930 rubles).

To implement this task, contextual advertising tools were chosen, since there is a formed search demand for car services. The main task of the advertising agency is to increase the number of applications within the budget, with a CPA below 930 rubles.

Planned indicators at the initial period:

CPA = 820 rubles per 1 application from the site (application or call to the service)

Actual results:

1st month CPA = 680 rubles per 1 application (application or call to the service).

2nd month CPA = 420 rubles per 1 application (application or call to the service).

3rd month CPA = 490 rubles per 1 application (application or call to the service).

4th month CPA = 450 rubles per 1 application (application or call to the service).

The results of this dynamics can be interpreted as follows: with the advertiser's initial indicators, the advertising tools were not optimally selected, because they brought applications at a cost of 930 rubles. In conducting and optimizing campaigns in, it was possible to reduce the cost of the application by 30%, and then 2 times, which indicates the effective work with this channel.

It is also worth noting that an increase in the cost of an application can be caused by the connection of other tools or targeting (placement conditions); therefore, when expanding advertising campaigns, you must allocate a test budget to understand the cost of the application (E-promo, 2018a).

Example 2

Client: an international pharmaceutical company

Objective: to increase market recognition of a broad-spectrum drug against rashes, inflammation and infections on the skin.

To solve this problem, we chose a set of digital marketing tools: contextual advertising, targeted advertising, seo-traffic, display advertising.

The goal is to increase the coverage of potential users while reducing the cost of attracting a user to the site (CPC).

KPI: an increase in the number of clicks by 50% during the advertising campaign with a decrease in CPC by 10%, while observing the qualitative indicators of user behavior (low bounce rate, time on the site more than 30 seconds, viewing 2+ pages on the site).

At the beginning of the advertising campaign, we had historical indicators of advertising campaigns, CPC = 22 rubles, 4,200 clicks.

Over 2 months, they reduced the cost of a click by 18%, which indicates a more efficient distribution of the budget by advertising sites; as a result, they increased coverage of the target audience increasing it by 30% (E-promo, 2018b)

Example 3

Customer: Chicco

Customer Description: the international brand of baby products.

The goal is to increase the number of online purchases, while reducing the cost per attracted client.

Initial data of the client: the conversion to website purchase is 0.21% (CR = 0.21%), and the cost of attracting a user is 3000 rubles.

The promotion budget is limited and there is no way to increase it even during peak demand periods.

To implement the task, we used contextual advertising, since the budget is very limited and there is a demand in the market.

7. Conclusion

Based on the results of the 8-month advertising, the following results were achieved: the site conversion rate is 0.81% (CR = 0.81%), which means that promotion tools and targeting are effective. The purchase price was reduced 3 times, CPS = 1000 rubles (E-promo, 2018c).

Due to the predicted performance indicators, we focus on market data, and the deviation of the actual values signals whether we optimize and select efficient tools to solve business problems.

Thus, the results of Russian and foreign studies and electronic resources on the use of indicators for assessing the effectiveness of Internet communications were studied on the example of the marketing agency E-promo (Moscow city).

References

- Black, D. (2000). *Economics. Explanatory dictionary*. Moscow, INFRA-M.
- Davydov, V. (2012). Why the Russian Internet marketing market lags behind the western Marketer's Digest. <https://blog.completo.ru/pochemu-rynok-internet-marketinga-v-rossii-ne-vau/>
- Deloitte (2020). *Marketing in 3D*. Retrieved on 12 October 2020 from <https://www2.deloitte.com/uk/en/insights/focus/3d-opportunity.html>
- Egorova, S. E., & Volkova, O. A. (2010). Efficiency analysis and audit of marketing activities. *Audit and financial analysis, 1*, 112-121.

- E-promo (2018a). How we increased online store sales by 7 times Retrieved from on 12 October 2020
https://www.e-promo.ru/cases_new/e-commerce/kak-my-povysili-prodazhi-onlayn-magazina-v-5-raz/
- E-promo (2018b). Optimization of the advertising campaign. Increased coverage by 80% Retrieved on 12 October 2020 from https://www.e-promo.ru/cases_new/krasota-i-zdorove/optimizatsiya-reklamnoy-kampanii-uvelichenie-okhvata-na-80-/
- E-promo (2018c). Reduced the lead cost by 2 times. Retrieved on 12 October 2020 from https://www.e-promo.ru/cases_new/avto/snizili-stoimost-lida-v-2-raza/
- Farris, P. W., Bendl, N. T., Pfeiffer, P. I., & Reibstein, D. J. (2009). *Marketing Indicators*. More than 50 indicators important for every manager. M., Balance Business Books