# Innovative Methods of Assessing the Efficiency of Internet Communications of Enterprises

By Alona Tanasiichuk<sup>1</sup>, Svitlana Kovalchuk<sup>2</sup>, Kateryna Sokoliuk<sup>3</sup>, Serhii Sokoliuk<sup>4</sup>, Larysa Liubokhynets<sup>5</sup>, Svitlana Sirenko<sup>6</sup>

#### Abstract

There are a large number of marketing communication tools that can increase the competitiveness of the enterprise by representing the advantages of the enterprise or its product over competitors on the Internet market. The main forms of enterprise promotion on the Internet are the website of the enterprise, search engine marketing, external company's activity on the Internet, brand promotion on the Internet, Rich-media. The Internet, as a platform for advertising, is ahead of other media in terms of growth. Therefore, assessing the efficiency of advertising, in particular Internet advertising, as a tool for enhancing the product competitiveness, is an important task for business specialists. In analysing the advertising activities of domestic enterprises, we see that tools such as print, television and radio advertising are less in demand among advertisers, while the volumes of Internet advertising are growing many times over. It is obvious that the pandemic crisis phenomenon caused by the covid-19 virus affected the working innovative methods of enterprises of all spheres and industries, many of them switched to remote work, separate from the consumer, and consumers physically distanced themselves for security purposes and began spending more time on the Internet and on social networks. The study improved the innovative methods of assessing the efficiency of the implementation of Internet communications using indicators "Objectives and key result - OKR", "Key performance indicators - KPI", "Key success indicators - KSI", "Balanced score cards - BSC", "Search distribution coefficient ","Net Promoter Score", "Number of subscribers/channels", "Share of valuable outputs" as criteria. The importance of assessing business process and effective functioning of key indicators is substantiated, its measurement requirements are determined. All indicators are considered over time in order to be able to justify their value, to track the change of indicators in the dynamics, as all indicators should stimulate the implementation of important actions for the enterprise.

Keywords: Internet marketing, Internet communications, methods of assessing the efficiency of Internet communication tools

#### 1. Introduction

For many years, the Internet, as a platform for advertising, has outpaced other media. Therefore, assessing the efficiency of advertising, in particular Internet advertising, as

<sup>&</sup>lt;sup>1</sup>Doctor of Economics Sciences, Professor of the Department of Marketing and Advertising, Vinnytsia Institute of Trade and Economics of Kyiv National University of Trade and Economics, Ukraine

<sup>&</sup>lt;sup>2</sup>Doctor of Economics, Professor, Department of Marketing and Trade Entrepreneurship, Khmelnytskyi National University, Ukraine

<sup>&</sup>lt;sup>3</sup>Candidate of Economic Sciences, Associate Professor of the Department of Marketing, Entrepreneurship and Trade Odessa National Academy of Food Technologies, Ukraine

<sup>&</sup>lt;sup>4</sup>Doctor of Economics Sciences, Associate Professor, Head of Department of entrepreneurship, trade and exchange activity, Uman National University of Horticulture, Ukraine

<sup>&</sup>lt;sup>5</sup>PhD in Economics, Associate Professor, Department of Economic Theories and Economic Security, Khmelnytskyi National University, Ukraine

<sup>&</sup>lt;sup>6</sup>Ph.D. in Technical Sciences, Senior Lecturer at Department of Commodity Science, Expertise and Trade Entrepreneurship, Vinnytsia Institute of Trade and Economics of Kyiv National University of Trade and Economics, Ukraine

a tool for enhancing product competitiveness, is an important task for business specialists. In the current context, the advertising market has changed profoundly. In analysing the advertising activities of domestic enterprises, we see that tools such as print, television and radio advertising are less in demand among advertisers, while the volumes of Internet advertising are growing many times over. It is obvious that the pandemic crisis phenomenon caused by the covid-19 virus affected the working methods of enterprises of all spheres and industries, many of them switched to remote work, separate from the consumer, and consumers physically distanced themselves for security purposes and began spending more time on the Internet and on social networks. In this way, online advertising market began to increase. However, with the development of the Internet, the number of online business components has increased, which requires fundamentally new and effective solutions. Therefore, it is important to understand that the Internet has become one of the tools of the increasing number of potential competitors, as it offers new advertising technologies, innovative methods of online sales of products.

In such circumstances, the business environment is rapidly replenished by Internet technologies, however, the audience coverage almost reaches the limits, because the increase in supply of products or services outweighs the number of buyers on the Internet, resulting in an intense competition between advertisers for consumers and clients. Of course, this area involves investing in the creation of new software applications for business, assessing the marketing potential of Internet advertising. Currently, it is extremely relevant to develop methods of assessing the efficiency of Internet advertising, taking into account the characteristics of the market.

### 2. Literature Review

The problems of the analysis of the efficiency of advertising activities are given considerable attention in the works of both domestic and foreign scientists. Analysis of scientific opinions of many experts in the field of marketing and advertising shows that the development of objective methods of assessing advertising activities is associated with significant difficulties: the presence of controlled and uncontrolled factors that may affect the process of advertising products and services; obtaining objective data in the process of implementation Internet advertising, since the effect of the advertising campaign may not be an one-off, but a long-term.

Theoretical aspects of studying the efficiency of advertising are covered in the works of F. Kotler (2008), T. Lukyanets (2003), A. Pavlenko (2008), P. Pererva (2020), T. Prymak (2011), O. Romanenko (2012). In their works, they considered the concept of general assessement the impact of advertising on the audience, assessement the efficiency of various components of advertising, the psychological impact of advertising on consumers, the application of panel research methods of the efficiency of advertising.

Some scientists have gained experience in researching the ensuring innovative and investment projects in the field of advertising activities, but methodological approaches to the analysis of the economic efficiency of advertising activities on the Internet, as well as its impact on business activities efficiency require a significant attention (2018).

The problems of information support of assessing and analysis of the efficiency of advertising activities on the basis of individual software tools, as well as problems of quality

and reliability of the obtained source data for analysis were not covered in the works of these authors. Due to the rapid development of Internet technologies in the sphere of marketing and advertising, fundamental researches on methods of assessing the efficiency of Internet advertising is an almost untouched area.

## 3. Results of the Study

There are a large number of marketing communication tools that can increase the competitiveness of the enterprise by representing the advantages of the enterprise or its product over competitors on the Internet market.

The main forms of enterprise promotion on the Internet are the website of the enterprise, search engine marketing, external company's activity on the Internet, brand promotion on the Internet, Rich-media.

Through the enterprise's website visitors receive information about the company, the company's brand, product range, etc. An important task of organization the work of the website is its search engine optimization, namely - site indexing by search engines. External activity of the enterprise on the Internet is provided by e-mail marketing, aggressive marketing - a set of persistent and drastic actions aimed at prompt and effective customers engagement and RSS technology, which allows you to communicate with website visitors by quickly sending updated information on the page. Brand promotion on the Internet is carried out through Internet advertising, namely: banner advertising, contextual advertising, advertising on social networks, sponsorship and cross-branding, affiliate marketing. Now, a new banner format has become relevant - Rich-media, which is an interactive commercials created using Flash technology and provides the ability to use animation, sound, many links, interactive communication with users.

We can emphasize the advantages of using Internet communications (Fig. 1).

Consider a system of assessing the efficiency of doing business in the Internet environment, using as criteria indicators of the efficiency of the implementation of the Internet communications system in circumstances of significant economic fluctuations.



Figure 1. Advantages of using Internet communications The source: developed by the author

The efficiency of the implementation of the Internet communications system depends on the number of website visitors who, due to banner advertising, used the banner link and went to the company's website. In order to clearly articulate the advantages and disadvantages of the proposed Internet communications system at the enterprise the assessing the efficiency and feasibility of using two approaches: analysis of economic indicators and analysis of the technical component of the Internet communications system should be implemented.

The first method will take into account such indicators for the enterprise as income and advertising expenses of the proposed system, as well as the average bill from the sale of products.

The second method describes in detail the indicators related to the company's website, namely - the number of clicks, time spent on the site, using special metrics that help evaluate Internet communications. To assess the economic efficiency of the implementation of the Internet communications system, it is better to use the second approach, which will help to obtain the necessary information for the enterprise, taking into account all the economic characteristics of Internet communications. This analysis will include an analysis of site traffic, the average number of views, the duration of the visitor's stay on the web resources of the site.

At the initial stage of assessing the efficiency of the Internet communications system, we suggest applying a balanced system of goals and key results of the advertising campaign (Objectives and key result - OKR) and analysis of strategic objectives of other business components, since areas of interest in each organizational unit differ and requires detailed analyses from the point of view of the expected result, and also the role of Internet tools in implementing the assigned tasks is estimated. The result of the study is the formation, based on defined goals, a structural system of OKR indicators, which includes specific goals and expected results.

A chain of stationery stores that sells thousands of groups of stationery was chosen as the focus for our studies. Suppose that it is not possible to present the full range of products on the website due to the fact that some of them are not profitable to send by mail. In that case, it is necessary to choose the most popular product categories based on the analysis of website transactions and feedback information to focus online sales efforts on them.

After the company has formulated its objectives and key results "Objectives and key result - OKR" it is necessary to determine how to measure these indicators. The key indicators of the efficiency of the implementation of the Internet communications system are "key performance indicators - KPI", success rate "key success indicators - KSI", balanced scorecard "balanced scorecards - BSC".

The idea of integrated Internet marketing is that the promotion strategy focuses on the ultimate goals and key results, and the expected results in terms of a set of web analytics indicators: increased traffic, increased number of subscribers to corporate newsletters, increased number of buyers, increasing the average cost of a single customer order, etc. All of these goals in internet marketing are called key performance indicators.

To assess business processes and the effective functioning of key indicators, there are requirements for their measurement: cost, rates, percentage, average value. All indicators are considered in time in order to be able to justify their value, to track the change of indicators in the dynamics, as all indicators should stimulate the implementation of important actions for the enterprise. For example, from the 1st to the 10th of the current month, 10,000 users visited the company's website. This indicator does not provide a full picture of the situation for a qualitative assessment of the results of the work of the trading company.

It is more important to determine how the number of site visitors has changed compared to the same dates last month. In this regard, most indicators of the efficiency of the implementation of the Internet communications system are relative or coefficients. For example: the company's website did not work for 30 minutes, as a result of which 15 orders were lost, or – last week the company lost 10,000 UAH of income due to the fact that the current ordering system does not work with site visitors who use third-party software, or – last month the company spent 20,000 UAH on the formation of keywords in the search resource, which did not pay off in one month. However, it is important to know what part of the total profits these costs constitute, but their size affects the choice of subsequent business decisions, so they should be included in the system of business performance indicators in the Internet environment "key performance indicators - KPI".

We believe that the development of indicators of the efficiency of the implementation of the Internet communications system "key performance indicators - KPI" depends on the specificities of a particular enterprise, objectives, goals and key results.

Business performance indicators in the Internet environment "Key performance indicators – KPI" may differ in different business areas, as the path that website visitors take in finding necessary information differs, which affects conversion rates.

Consider the performance indicators of the implementation of Internet communications system "key performance indicators – KPI", which allow to analyse the efficiency of the use of websites of domestic enterprises.

Objectives and key result –	Performance indicators «key performance indicators – KPI»		
<b>OKR</b> of stakeholders			
1	2		
Increase traffic through search	Percentage of visits through search engines,		
engines	Percentage of conversions from search engine visitors		
Increase the volume of products	Percentage of website visits with products added to the cart,		
sales	Proportion of visits with completed purchase relative to the number of		
	started processes of purchase of products,		
	Percentage of visits when the consumer's cart was left		
Increase contacts of visitors to	Percentage of visits where the commentary was left, where "Like" (on		
the company's website	Facebook, Like, Twitter Follow, Google, etc.) was put or catalogue was		
	uploaded,		
	Percentage of visits where the "Contact Us" form was completed, or where		
	the click on the "Write to us" link was made,		
	Average time of site visit,		
	Average pageview depth		
Increase the volume of products	The average cost of the order,		
sales to constant clients The average number of units of the products in the transaction			
Improving the client	ent Percentage of bounce visits (only one page viewed)		
environment	Percentage of site searches with zero results		
	Percentage of visits after which a supporting request was issued		

Table 1: Comprehensive package of unified indicators of implementation of the Internet communications system "key performance indicators – KPI"

The source: developed by the author

Consider the indicators of assessing the efficiency of doing business in the Internet environment as a tool to increase the competitiveness of products (Fig. 2).



Figure 2. The system of indicators of business efficiency in the Internet environment The source: developed by the author

Task completion rate is the proportion of website visitors who have completed the main purpose of the visit. Web analysts focus on e-commerce and clickthrough rates. Most visitors will not implement conversions online, and even in the case of e-commerce, they can visit it not only to purchase products. Instead of determining whether visitors have fulfilled the main purpose of the visit, exit polls can be applied to allow visitors to give the company an understanding of whether they have achieved the goal. In this case, it will become clear what they have been able to do during the visit, and which their expectations from the visit were not met. The exit polls will help to attract customers to the process of improving the website, and the number of required answers will be an indicator of its efficiency **"key performance indicators - KPI"**.

Search distribution rate is the percentage of traffic coming from search engines compared to the traffic of major competitors. Enterprises usually carry out search engine optimization and invest in a search engine system, which allows them to constantly increase the amount of traffic due to its keywords. The end result is that the strategy of obtaining search traffic provides competitive advantages defined by the company. Otherwise, it is necessary to make changes to the keywords of the trademark, to the common keywords related to product categories.

**Net promoter score** is an indicator that measures the distribution of the number of visits by visitors of the site, that is, allows to determine how many times customer visited the company's website, what is the duration between visits of the same customer.

In our opinion, task completion and search distribution rates are interrelated and representative because they measure the behavior of site visitors and the long-term impact of web strategy on them. They allow to assess whether the end result of building a longterm relationship with this visitor is achieved, it is currently difficult to create value proposals on the website that will force customers to return to the site again and again.

**The "Number of subscribers/channels"** indicator measures the total number of people who have subscribed to receive newsletter of the company's website. Channels of information distribution (RSS "really simple syndication") began to gain popularity with the advent of blogs, but now they are still widespread in the Internet environment. A change of the innovative methods of assessing the number of subscribers or channels is very important because the content of a website is consumed outside of it, through tools that can be targeted to the Internet or software. This indicator assesses the behavior of the

most proven and valuable target audience, those site visitors who extract content from the website themselves.

**Share of valuable outputs** indicator assesses the share of visitors who leave a company's website at the time of click on information that has informational value.

Application of this indicator is a bit strange, but there are some types of websites where a visitor's exit with a random click is the desired end result. That is, those visitors who leave the site in this way demonstrate their refusal to the company's site services, and valuable outputs are those outputs when visitors leave the site, but they lead to the result. It is worth noting that most web analytics tools are inbuilt functions for tracking external links. When visits resulted in clicks on a valuable link are selected, they can be segmented. This segmentation will allow to analyze the sources of traffic, the features of the content that is of interest to these visitors, and what they were looking for on the site of the enterprise and better understand the features of traffic and optimize the site.

In the era of digitalization, it can be difficult for companies to assess what is the "right" digital model for their business. To avoid the common pitfalls in the implementation of Internet communications in the activities of "MEDIA GROUP UKRAINE" LLC, the company's executives allowed to carry out a real assessment of its effectiveness. To assess the effectiveness of Internet communications has been used an innovative method of the analysis of key performance indicators (KPI).

"MEDIA GROUP UKRAINE" LLC is the largest media group in Ukraine and the only Ukrainian company that is a leader in terms of audience coverage.

Since the beginning of the coronavirus pandemic "MEDIA GROUP UKRAINE" LLC has taken several strategic decisions, which allowed the company to avoid a collapse in the main economic indicators. However, it does not mean that the company has abandoned other activities that have become less profitable. The dynamics of advertising revenues for the last three years can be seen in Figure 3:



January February March April May June July August September October November December Figure 3. Advertising revenue of "MEDLA GROUP UKRAINE" LLC, 2019-2021, UAH [16]

As shown in Figure 3, in March-May 2020 the advertising revenue of "MEDIA GROUP UKRAINE" LLC decreased significantly, which was affected by the coronavirus

pandemic. However, we managed to compare the average annual rate in September-October. This period was marked by local elections, which resulted in a high demand for political advertising order (outdoor advertising, website advertising, etc.).

Figure 4 shows the structure of products and services of "MEDIA GROUP UKRAINE" LLC in the total sales of the company. To better represent the structure of products and services in the total volume of the company the data for 3 quarters of 2021 were taken for the diagram.



Figure 4. Structure of products/services in the total sales of "MEDLA GROUP UKRAINE" LLC, 2013-2021, %

Therefore, on the basis of the site we will analyze the effectiveness of Internet communications in the marketing activities of "MEDIA GROUP UKRAINE" LLC.

Figure 4 shows the trend in changes in the volume of providing Internet services and printing publications in the period from 2013 to 2021. For comparison, we have chosen this period, because the dynamics of changes for 2018-2020 would not look correctly. This once again proves that the use of Internet communications is an element of doing business that cannot be neglected. It should be noted that over the last three years "MEDIA GROUP UKRAINE" LLC started to allocate more funds for contextual and social media advertising, which once again proves the relevance, effectiveness and necessity of using digital channels in the marketing activities of the enterprise.

Before analyzing and evaluating the digital technologies in the marketing of "MEDIA GROUP UKRAINE" LLC, we should find out what digital channels are used by the company (Table 2). Let's consider the digital channels used for the 20minut.ua news website.

Table 2. Analysis of digital chamiles of MILDIA GROOT ORIGINAL				010 202	<b>o</b> , om	
N⁰	Digital	Characteristics		Budget, UAH/year		
JNG	Channel			2019	2020	
1.	Website	The main channel for presenting the company's content. Adapted for PC, mobile devices and smart gadgets. It has a convenient and logical interface	70000	83000	90000	
2.	SEO optimization	Creating a good result page position in search engines based on keywords and phrases. The main goal of the company is to attract the maximum number of interested visitors by organic search and turn them into regular readers of the site.	20000	30000	45000	

Table 2: Analysis of digital channels of "MEDIA GROUP UKRAINE" LLC, 2018-2020, UAH

N⁰	Digital	Characteristics	Budg	et, UAH	/year
JN≌	Channel	Characteristics	2018	2019	2020
3.	Email Marketing	A means of communication with potential readers. The newsletter is conducted daily through a special service that automatically generates the top news from the site.	-	2100	2500
4.	SMM	Focused on interaction with the audience of the site using publications on corporate pages in social networks (Facebook, Instagram, Telegram, Viber)	60000	72000	120000
5.		A brief pop-up message in an app or browser. Sent to readers to tell them about "hot" and important news. The main advantage is a quick contact with the reader	-	-	62400
6.	Video content	Creating and posting video content on YouTube (interviews, surveys, "We checked" section, reports from events, etc.)	18000	31000	60000
То	Total				379900

As shown in Table 2, for the most effective promotion in the digital space "MEDIA GROUP UKRAINE" LLC uses a fairly wide range of complementary tools. It is worth noting that the company uses all of the above-mentioned channels in conjunction and not separately from each other.

The company allocates the largest budget to social media and content sending using push services. The smallest budget is allocated for e-mail marketing. This is because the e-mail distribution is not popular among Ukrainians, so it is not rational to allocate a large budget for this digital channel. As for push-mailings, by 2020 instant notifications from 20minut.ua website were sent to readers through the self-developed digital channel, but such messages showed low efficiency. Therefore, in 2020 "MEDIA GROUP UKRAINE" LLC started using Gravitec.net service.

In general, from Table 2 we can observe a rising trend of the importance of Internet communications in the marketing activities of the enterprise. Thus, the budget of "MEDIA GROUP UKRAINE" LLC for using digital channels has increased by 40% during the period under study.

It is worth noting that in 2019 a new position appeared in the state of "MEDIA GROUP UKRAINE" LLC - a database analyst. It was preceded by the fact that the website 20minut.ua began to implement paid subscription to news, so it was necessary to create detailed reporting and analytical data on information systems, for the proper functioning of databases and generation of reports based on data on the systems, support of authorized users and implementation of measures to improve the paywall system.

Almost all digital channels of "MEDIA GROUP UKRAINE" LLC can be measured. Efficiency is evaluated both through internal sources of statistics built into the channels (for example, Facebook, Instagram and YouTube have an built-in ability to measure key indicators) and through external services that allow to "pull" more accurate data. The effectiveness of digital channels is mainly evaluated by a database analyst and SMM editor (Table 3).

It should be noted that "MEDIA GROUP UKRAINE" LLC does not allocate budget for the services for digital channels analytics shown in Table 3. Google Analytics is free for all sites and purposes of usage. The possibility of analytics through CRM-system the company

received thanks to a grant for the development of paywall from Media Development Foundation. Own CRM-system was created on the basis of 20minut.ua website.

N⁰	Name of the service for analytics	Characteristics	Scope of
			responsibility
1.	Google Analytics	An actual way to get information about visitors for	Database
		the website, which allows an enterprise to create their	analyst
		own reports, show real-time traffic data, display traffic	SMM – editor
		sources, track the peak hours on the site, etc.	
2.	CRM system REMP	An open-source platform that allows publishers to	Database
	(combination	better understand and monetize their audience and	analyst
	of Chartbeat and	sell content and services. Through this platform, the	
	Google Analytics	enterprise performs operational activities related to	
	services)	monetizing site articles, editing reader actions and	
		A/B testing of headlines and photos to increase	
		conversions	
3.	Proprietary CRM-	The platform is developed by programmers of	Database
	system	"MEDIA GROUP UKRAINE" LLC based on the	analyst
		data from the site and CRM-system REMP. It records	
		all data on transactions, subscriptions and subscribers	
		of the site and controls the authorization process	

Table 3: Services for digital channel analytics of 20minut.ua website

To assess the effectiveness of Internet communications of "Media Group Ukraine" LLC has been used a system of KPI (Key Performance Indicators), the list of indicators is shown in the table 4:

N₂	Digital channel	Performance indicators (KPI)	Sources of data acquisition
1.	Website	Traffic sources	Google Analytics, REMP CRM system
		Sessions by device	
		Bounce rate for the home page	
2.	SEO	Audience by age	Google Analytics
	optimization	Audience interests	
3.	Email Marketing	Open Rate (OR)	Internal statistics of the SendPulse service
		Click-to-Open Rate (CTOR)	
		Unsubscribe Rate (UR)	
4.	SMM	Audience growth rate	Internal Facebook and Instagram
		Audience engagement rate	statistics, Google Analytics
		Click-through rate (CTR)	
5.	Push	Click-through rate (CTR)	Internal statistics of the Gravitec.net
	Technology		service
6.	Video content	Views	YouTube internal statistics, Google
		Shows	Analytics
		CTR	
		Average duration of video	
		views	

What does matter is that different performance measurement indicators are used for different digital channels. The data for their determination can be extracted both from the built-in statistics of each channel and from external analytical resources. For example, for each digital channel, the main statistics can be viewed through the Google Analytics service. It should also be noted that all analytical services used by "MEDIA GROUP UKRAINE" LLC are free.

To determine how effective the digital channels of "MEDIA GROUP UKRAINE" LLC are and whether there are shortcomings in their work, we have analyzed the key KPI indicators for each digital channel of the enterprise.

**1. Website.** Proper selection and monitoring of key performance indicators of the website is very important because it allows to understand whether a certain channel of communication is beneficial and how readers react to the content.

Sources of 20minut.ua website traffic allows to identify active and inactive platforms to attract visitors (Fig. 5) (number of contacts (thousands) / June 2021 (1-30).



Fig. 5. Traffic sources of 20minut.ua website (Google Analytics screenshot)

As shown in figure 5, the main source of traffic to 20minut.ua website during the period under study are social networks. In percentage terms they occupy more than 60% of total traffic. This is quite high efficiency indicator, because promotion in social networks does not require costs of financial and time resources. After social networks on the diagram, we see traffic from organic search (15%), as well as direct events to the site (10%), referral links (8%) and other sources of traffic (7%).

The "Sessions by Device" indicator allows to track which devices visitors are using when they visit the site and for which gadgets content should be adapted. This indicator also allows to track the brand of the mobile device, as well as the Internet provider, the means of data entry, the operating system and screen resolution. Each user in this analytics section is divided by device type: mobile, desktop, tablet. In this report it is convenient to analyze any data on mobile traffic. The behavior of mobile users can be studied, as well as the most popular devices and their overlap: the most sessions on 20minut.ua website are made by users via mobile devices (89.1%). It is noteworthy that only 9.8% of visitors visit the site through a personal computer. That is why for "MEDIA GROUP UKRAINE" LLC priority is the creation of content adapted for mobile devices.

Another one equally important indicator to assess the effectiveness of the 20minut.ua website is the bounce rate for the home page. It demonstrates the percentage of users who left the site directly from the main page or by opening only one link. As evidenced by the evaluation results, the bounce rate on the 20minut.ua website is quite unstable, although it is within the norm. For the period under study it was 17.39%, while the norm is 25%.

20minut.ua website has high and stable performance indicators. In-depth analytics from Google Analytics allows to solve local problems in the work of the website quickly and efficiently. However, it is worth considering the creation of a mobile application "20minut News".

**2. SEO optimization.** One of the main markers of effective SEO promotion is website traffic. This KPI is especially important for information resources, as it allows to learn more about the potential reader.

Analysis of the audience (age, interests). Audience segmentation allows to choose the right marketing tools and increase the reader's content score on the website (Fig. 6, 7). Age users 60,91% of the total number



Figure 6. Age categories of readers of 20minut.ua website (Google Analytics)

7,41%	Food & Dining/Cooking Enthusiasts/30 Minute Chefs
5,55%	 News & Politics/Avid News Readers
5,54%	Media & Entertainment/TV Lovers
4,69%	Lifestyles & Hobbies/Family-Focused
3,88%	Media & Entertainment/Book Lovers
3,82%	Lifestyles & Hobbies/Green Living Enthusiasts
3,43%	Shoppers/Bargain Hunters
3,22%	Lifestyles & Hobbies/Outdoor Enthusiasts
3,14%	Beauty & Wellness/Beauty Mavens
3,13%	News & Politics/Avid News Readers/Entertainment News Enthusiasts

Figure 7. The interests of readers of the 20minut.ua website (Google Analytics)

Figures 6, 7 allow to create a portrait of the visitor of the website and according to these characteristics to focus on a certain category of news. For example, the section "Food and cooking" is a popular category among the readers of 20minut.ua, but the site does not publish materials on this topic.

**3. Email marketing.** Despite the increasing usage of social media, email marketing continues to be one of the most effective digital marketing channels in terms of profitability. Its effectiveness can be measured by the metrics shown in Table 5.

Table 5: Email marketing effectiveness indicators of 20minut.ua website (according to SendPulse service)

Indicator	Formula	Calculation
Open Rate (OR)	$\frac{\text{number of openings}}{\text{number of sendings}} \times 100\%$	7,5%
Click-to-Open Rate (CTOR)	$\frac{\text{number of conversions}}{\text{number of openings}} \times 100\%$	17%
Unsubscribe Rate (UR)	$\frac{\text{complains/unsubscriptions}}{\text{number of openings}} \times 100\%$	3%

The calculations in table 5 show how effective the mailing lists of the news of 20minut.ua website are. So, the newsletters have a critically low percentage of open emails - 7.5%, while the minimum norm is 14%. The percentage of click-throughs from open mails is within the norm - 17%, while the average rate is 15%. The unsubscribe rate is only 3%, which indicates that only a small number of people are unsubscribing from newsletters.

4. SMM. Assessment of the effectiveness of social networks by KPI is made according to the goals of content promotion. For the object under study such goals are: an increase in traffic to the site, brand recognition and a stable level of coverage and interaction with messages, which includes the number of preferences, shares and comments. Important for "MEDIA GROUP UKRAINE" LLC in promoting in social networks is also the activity of subscribers in personal messages of communities in Facebook and Instagram. Thus, the effectiveness of social media of the 20minut.ua website can be evaluated by the indicators shown in table 6.

Table 6: Performance indicators of 20minut.ua website social networking (according to embedded statistics)

Indicator	Formula	Facebook	Instagram
Audience growth rate	$\frac{\text{number of new subscribers}}{\text{total number of subscribers}} \times 100\%$	8%	6%
Audience engagement rate	$\frac{\text{number of subscripters}}{\text{coverage}} \times 100\%$	23%	4%
Conversion rate (CTR)	$\frac{\text{number of clicks on the link}}{\text{number of impressions of the post}} \times 100\%$	17%	-

The audience growth rate shows how actively social network users have joined the community in the month under study, comparing to the previous month. As we see from Table 6, for the Facebook page of the 20minut.ua website this indicator is 8%, which means that the community is gaining an audience at a slow pace. The same can be concluded for the Instagram group, which increased its audience by only 6% in the month

under study.

The audience engagement rate for the Facebook group is within the norm -23% while the norm is 20%. For Instagram-community of 20minut.ua website this indicator is only 4% while the norm is 10%. This indicator shows which actions the user performed with the post – preferences, comments, shares and clicks on the link. The conversion rate indicates the click-through rate, which is the ratio between such indicators as link clicks and the number of impressions of the post. For the Facebook page of 20minut.ua website CTR is 17% and is within the normal range (15% for non-commercial pages). The conversion rate for Instagram posts is not determined because they do not have an active link for clicks.

**5.** Push technology. The main purpose of using push-notifications for 20minut.ua website is a closer connection with subscribers and speed of news delivery to readers. At the stage of preparing the news for sending, SMM-editor of the company takes into account factors such as time, audience segment and visual component. To measure the effectiveness of push notifications, the indicators shown in Figure 8 can be used:



Figure 8. Key indicators to determine the effectiveness of push-notifications of 20minut.ua website (according to Gravitec service)

In the studied period 133 news were sent with the help of push-notifications. Their effectiveness can be determined with the help of formula 1:

 $CTR = \frac{\text{number of open notifications}}{\text{number of viewed notifications}} \times 100\% (1)$ 

So, the CTR of push notifications of 20minut.ua website during the period under study is 2.92%. This indicator is within the normal range (2%) and fully meets the goals that the company is trying to achieve with instant newsletters.

6. Video content. The editorial staff of 20minut.ua website produces video content posted on their official YouTube page. The main objectives of the company in this direction: to increase brand awareness, to be useful to readers and encourage potential subscribers of the site to buy premium access. So far, "MEDIA GROUP UKRAINE" LLC is not engaged in serious monetization of its YouTube-channel.

In August 2021 a cameraman, who also works as a journalist, was hired to create video content. Efficiency indicators of the 20minut.ua website YouTube channel are shown in Table 7.

Indicator	Explanation	Value
Views	The total number of views of all videos during the period under study.	31 800
ImpressionsData on how many times the 20minut.ua YouTube channel icon was shown to random users and subscribers.		69 000
CTR	Shows how often users clicked on a video after seeing the channel icon.	7,2%
Average video viewing time	Average video viewing time in minutes.	1:55

Table 7: Efficiency indicators of the 20minut.ua website YouTube channel

The key metrics for determining the effectiveness of 20minut.ua video content on YouTube are CTR and average video duration. According to YouTube data, the average CTR for most videos is from 2 to 10%. As you can see from Table 7, for 20minut.ua channel it is 7.2% and is within normal limits. However, the average video duration is not high enough, because most videos are at least 3 minutes long, which means that the user watches only half of the video.

Given that the majority of videos on YouTube channel of 20minut.ua have a duration of 5 to 15 minutes or more, this indicator is important to assess the effectiveness of this digital channel. It indicates the audience retention on the video - the longer the user watches the video, the more often YouTube will offer the video to other users on the main page.

Summarizing the results of the assessment of the effectiveness of Internet communications of "MEDIA GROUP UKRAINE" LLC should be noted that, despite the fact that the 20minut.ua website is informational, not commercial, to promote it and increase traffic a lot of digital channels are used, the effectiveness of which is sometimes difficult to evaluate (Table 8).

N₂	Digital channel	Advantages	Disadvantages
1.	Website	60% of traffic to the site via social	89.1% of sessions from mobile devices in
		networks	the absence of the app
		Stable bounce rate from the home page	
2.	SEO	A wide range of age audience	The interests of users of the website are not
	optimization		taken into account
3.	Email	Stable percentage of click-throughs	Low percentage of open emails
	Marketing	from open emails	Note. Email newsletter subscribers base
		Low bounce rate	consists of about 3000 people, therefore the
			percentage of open emails is low
4.	SMM	High audience engagement and	Audience growth at a slow pace
		conversion rate	Note. The audience of the Facebook group
			is the largest of the news groups, so this
			indicator is not the key
5.	Push technology	High conversion rate (CTR)	No
6.	Video content	High CTR	Low average duration of video

Table 8: Advantages and disadvantages of 20minut.ua website digital channels

As we can see from table 8, 20minut.ua website has three digital channels that need improvement: the website, SEO-optimization and video content. Weaknesses of these channels stand in the way of increasing traffic on the site - one of the main goals of 20minut.ua promotion on digital platforms.

## 4. Conclusion

To increase the competitiveness of the enterprise "MEDIA GROUP UKRAINE" LLC the proposed innovative methods to assess the economic efficiency of implementing an Internet communications system can be used. Therefore, in business activities in the Internet environment, it is necessary to anticipate the expected results, as they determine the system of indicators of Internet advertising efficiency, which will allow e-commerce entrepreneurs to identify progressive directions of sales, marketing activities for customers and find ways to increase product competitiveness.

In assessing the effectiveness of Internet communications of "RIA MEDIA UKRAINE" LLC and conducting a survey among the readers of 20minut.ua website have been found such deficiencies as the lack of a mobile application, an insufficient number of publications on popular topics among readers, the low average duration of video viewing on YouTube and the lack of special paid subscription plans for preferential categories of the population. Given the specialization and capabilities of the enterprise, such measures to eliminate deficiencies and improve the effectiveness of Internet communications in the marketing activities of "RIA MEDIA UKRAINE" LLC have been proposed: To develop a mobile application "Vinnytsia News for 20 Minutes". To make a list of topics for publications, which are published on the site in insufficient quantities and to determine the target audience. To analyze the audience on the YouTube channel and to determine their interests, which are designed to increase the average duration of video viewing. To create special plans for socially privileged categories of the population (pensioners, students, combatants and people with disabilities).

The study assessed the expected effect of the implementation of the proposals to demonstrate which result our proposed activities could lead to. Thus, the development of a mobile application would consolidate the company's position on the information services market and improve brand recognition, the expansion of the list of topics for publications would attract from 6,000 to 15,000 new readers to the website, the usage of push-mailing of YouTube videos would increase the average duration of video viewing to a minimum of 3 minutes, and the introduction of special plans for paid subscriptions would attract the privileged categories of the population to the website and demonstrate the concepts of socially responsible business.

Thus, using the described methodology of economic assessment the implementation of the Internet communications system, the main economic assessments of efficiency, we can conclude that domestic enterprises will have a detailed description of the target audience, sources of customer traffic, analysis of information retrieval system. The use of these indicators will allow to get the following economic performance indicators - conversion, cost per one purchase, average cost per click. The implementation of the Internet communication system will allow companies to improve their economic performance, increase communication activity.

#### References

- Kotler F., Keller K., Pavlenko A. (2008), Marketing management. K.: Ximdzhest, 720 p. (Ukraine). [10] Cyhankova T. M. (2004), International marketing: theoretical models and business technologies: Monograph. Kyiv: KNEU, 137 p. (Ukraine).
- Lukianets T.I. (2003), Reklamnyi menedzhment. K.: KNEU. 440 s.
- Prymak T. O.(2011) Marketynhovi komunikatsii.Marketynh v Ukraini. 2011. № 4. S. 46-52. URL: http://nbuv.gov.ua/UJRN/Mvu 2011 4 10
- Romanenko Y. O. (2012) Teoretyko-metodolohichna identyfikatsiia poniattia komunikatsii u konteksti suchasnykh doslidnytskykh pidkhodiv. Efektyvnist derzhavnoho upravlinnia. 2012. Vyp. 32. S. 108-115. URL: <u>http://nbuv.gov.ua/UJRN/efdu\_2012\_32\_14</u>
- Pererva P. (2020) Digital marketing: opportunities and paradoxes of communication. Marketing and Digital Technologies.pp. 6–13.
- Tanasiichuk A.M., Kovalchuk S.V., Lisovskyi I.V. (2018) Rol tsyfrovoho marketynhu v aktyvizatsii mizhnarodnoi biznes-diialnosti pidpryiemstv. Marketynh i tsyfrovi tekhnolohii. 2018. №1. S. 55 – 74. URL:http://mdtopu.com.ua/index.php/mdt/article/view/28/30Vargo D., Zhu L., Benwell B., Yan Z. (2020) Digital technology use during COVID-19 pandemic: A rapidreview. Wiley. №10. C. 13–24.
- Is digital an effective mass market medium (2017) Marketing Week. URL: https://bit.ly/3uNhdPW.
- Cisco Annual Internet Report (2020). White Paper. CISCO. URL: https://bit.ly/3skOWik.
- Chaffey D., Ellis-Chadwick F., Mayer R., Johnston K. (2006) Internet Marketing Strategy, Implementation and Practice. Spain: Financial Times Hall. 579 p.
- Grewal D., Noble S. M., Roggeveen A. L. (2020) The future of in-store technology. Journal of the Academy of Marketing Science. Vol. 48, No. 1. P. 96-113.
- Grubor A. (2018) Internet Marketing as a Business Necessity. Interdisciplinary Description of Complex Systems. №16. C. 265-274.
- Jones P. (2021) What are the Current Trends and Technologies Driving Digital Marketing, and What's Next? Tech Times. 2021. URL: <u>https://bit.ly/3yxXdSM</u>.
- Kemp S. (2020) Digital 2020: Global Digital Overview. Journal Datareportal. 2020. URL: https://bit.ly/3CRnXAX.
- Verma D. A. (2018) Critical Review of Digital Marketing. International Journal of Management, IT & Engineering. 2018. №8. C. 321-339.
- Vaughan S. (2020) What COVID-19 Taught Us About Digital. Made By Speak. 2020. URL: <u>https://bit.ly/3Dr108e</u>.