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THE SPECIFICS OF ORGANIZING AN END-TO-END MARKETING INTERNET ANALYTICS SYSTEM

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Introduction and purpose of the study. Nowadays, during the period of intensive development of the network economy, Internet marketing in business is becoming more and more relevant, in particular Web analytics of business, which should not be based on theoretical indicators, such as the number of applications/calls from the site, but on important for business: the number sales and the amount of income. End-to-end analytics allows you to understand which customers are really beneficial for the business. End-to-end analytics is an analysis of the effectiveness of advertising campaigns based on sales data. With proper configuration, such a system allows you to track the entire sales cycle, starting from the user's first visit to the site and ending with the sale of the order placed by him (possibly even a second one). End-to-end analytics makes it possible to calculate the payback and effectiveness of marketing campaigns, advertising channels, individual ads and even search phrases, which, in turn, allows you to allocate the budget more efficiently, while getting the maximum return on advertising investments. The above outlines the relevance of this research and reflects the purpose of this article as features of the formation of an end-to-end marketing system of Internet analytics.

Research methods. The work uses methods of empirical analysis, in particular, methods of comparison, measurement and observation.

The results. In this study, the process of optimizing each stage of the sales funnel and

increasing conversion is considered. E-business conversion is proven to be affected by price, seasonality, competitors, etc., but analytics only affects ad traffic and site interface. The paper divides the tasks of web analytics into two groups: solving a specific problem and end-to-end analytics. The main components of the system of end-to-end marketing Internet analytics are highlighted and it is proved that end-to-end analytics is a system that allows analyzing the effectiveness of advertising based on a large pool of data: sources of advertising, socio-demographic portrait of the user, paths through the site, etc. in connection with CRM-system End-to-end analytics makes it possible to look at the advertising campaign as a whole, determine the effectiveness of individual advertising sources and search phrases and, accordingly, optimize the entire sales force.

Conclusions. It should be noted that the basic components of end-to-end analytics, the list of stages and analyzed data will change for specific theoretical or practical tasks. For the implementation of practical tasks, the composition is directly influenced not only by the type of company and the market in which it operates, but also by its size and the specifics of the existing marketing information technology architecture. Including the structure of the marketing department, information systems, online services and traffic sources, as well as the structure of the company's sites.

Keywords: Internet marketing; WEB analytics; business digitalization; sales funnel; conversions.

NUMBER OF REFERENCES	NUMBER OF FIGURES	NUMBER OF TABLES
13	2	0

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ОСОБЛИВОСТІ ФОРМУВАННЯ НАСКРІЗНОЇ МАРКЕТИНГОВОЇ СИСТЕМИ ІНТЕРНЕТ-АНАЛІТИКИ

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Вступ і мета дослідження. В сьогоdnішній час в період інтенсивного розвитку мережної економіки набуває все більшої актуальності інтернет-маркетинг в бізнесі, зокрема Веб-аналітика бізнесу, яка повинна ґрунтуватись не на теоретичних показниках, таких, як кількість заявок/дзвінків з сайту, а від важливих для бізнесу: кількості продажів та суми доходу. Зрозуміти, які клієнти справді вигідні для бізнесу, дозволяє наскрізна аналітика. Наскрізна аналітика – це аналіз ефективності рекламних кампаній на основі даних про продаж. При правильному налаштуванні подібна система дозволяє відстежувати всю вирву продажів, починаючи від першого відвідування сайту користувачем і закінчуючи продажем за оформленням ним замовленням (можливо, що й повторне). Наскрізна аналітика дає можливість розрахувати окупність та ефективність маркетингових кампаній, рекламних каналів, окремих оголошень і навіть пошукових фраз, що, у свою чергу, дозволяє більш ефективно розподіляти бюджет, отримуючи при цьому максимальну віддачу від рекламних інвестицій. Вищезазначене окреслює актуальність даного дослідження та відображає мету даної статті як особливості формування наскрізної маркетингової системи інтернет-аналітики.

Методи дослідження. В роботі використані методи емпіричного аналізу, зокрема, методів порівняння, виміру та спостереження.

Результати. В даному дослідженні розглянуто процес оптимізації кожного етапу воронки продажів та збільшення

конверсії. Доведено, що на конверсію електронного бізнесу впливають вартість, сезонність, конкуренти тощо, але аналітика впливає лише на рекламний трафік та інтерфейс сайту. В роботі розділено завдання веб-аналітики на дві групи це вирішення конкретної проблеми та наскрізна аналітика. Виділено основні компоненти системи наскрізної маркетингової інтернет-аналітики та доведено, що наскрізна аналітика – це система, що дозволяє проаналізувати ефективність реклами на основі великого пулу даних: джерела реклами, соціально-демографічний портрет користувача, шляхи по сайту тощо у зв'язку з CRM-системою. Наскрізна аналітика дає можливість поглянути на рекламну кампанію загалом, визначити ефективність окремих рекламних джерел та пошукових фраз та, відповідно, оптимізувати всю вирву продажів.

Висновки. Слід зазначити, що базові компоненти наскрізної аналітики, перелік етапів і аналізовані дані будуть змінюватися під конкретні теоретичні чи практичні завдання. Для реалізації практичних завдань, на склад прямиий вплив надає не тільки тип компанії та ринок, на якому вона працює, але і її розмір та специфіка маркетингової інформаційно-технологічної архітектури, що склалася. Включаючи структуру відділу маркетингу, інформаційні системи, онлайн-сервіси та джерела трафіку, а також структуру сайтів компанії.

Ключові слова: інтернет-маркетинг; WEB-аналітика; діджиталізація бізнесу; воронка продажів; конверсії.

Statement of the problem and its connection to important scientific and practical tasks. The growing competition forces companies to search for new methods to increase the effectiveness of marketing, including Internet marketing as a crucial element of the marketing system. Often the auction principle of forming the cost of advertising and reducing the time that the consumer is willing to spend on contact with advertising, leads to an increase in the cost of advertising. For example, contextual advertising, as the most widely used advertising channel, having a specific pricing method based on the auction mechanics, is becoming more expensive every year due to the above-mentioned reasons. The constant growth of activity using business marketing, and the trend over the past few years to redistribute marketing budgets in favor of Internet marketing, has increased competition among advertisers. And the increase in the volume of marketing influence on consumers, as already mentioned above, makes the latter become less receptive to the communication activities of the business. F. Kotler, describing modern markets, noted that the theory of turbulence is applicable to them: the modern economy is an economy of chaos (Kotler and Li, 2008). Continuing this metaphor in connection with marketing information, we can say that in Internet marketing every company seeks to show its advantages even more aggressively (persistently) than in traditional marketing. The overall chaotic nature of the Internet increases turbulence, so the quality of content and timely analysis of marketing information is extremely important in today's environment. In case a company cannot increase its marketing costs, the most rational solution might be to optimize costs with the help of end-to-end analytics. This factor determines the relevance of this study and its necessity for modern business in today's realities.

Analysis of recent publications on the problem. The information specificity of modern marketing is perfectly disclosed through the introduction of the methodology of inbound web-marketing by foreign researchers B. Halligan and D. Shah. Approaches to the study of Internet marketing activity are well disclosed by such foreign scientists as J.R. Saura, P. Palos-Sanchez, L.M. Cerda-Suarez, etc. Studies of specifics of marketing activity of small business enterprises are considered on the basis of works of such foreign researchers as J.K. Levinson, P. Henley, E. Reece, D. Jobber, J. Lancaster. N.V. Kirichenko, L.A. Aleshchenko, L. Turchin, V. Ostroverkhov, M. Kvita and others. However, despite the many studies in the field of Internet marketing, the field of end-to-end analytics remains poorly understood and requires further genuine research.

The purpose of this article is to investigate the specifics of organizing an end-to-end marketing Internet analytics system.

Statement of the main results and purposes. One of the in-demand management mechanisms today aimed at improving the efficiency of sales and

promoting products on the market is Internet marketing, which involves the use of a personalized approach to the potential consumer. Internet marketing includes the following elements:

1. Strategy and goals serve as an important element in building a system for attracting customers through the Internet and implementing effective Internet marketing into your business.

2. A site on the Internet is, for example, a company website, a page in directories and portals, a profile in various communities and exchanges – everything where the potential audience will be attracted in the future.

Traffic generation is the attraction of visitors to the website (Internet resource) or landing page.

4. Lead generation is the activity of attracting traffic and converting it into leads (potential customer requests). Lead generation presupposes some target action by the visitor of the site. Target action is a call, an application in the contact form, registration on the site, etc. Basically, everything that makes it possible to continue to communicate with the potential client.

5. Customer generation is "turning visitors into customers." In other words, making a sale or closing a deal. In this, depending on the type of business, it is no longer the Internet marketing, but the sales department that is largely involved.

Sometimes this happens smoothly, almost without lead generation, and sometimes you need "lead management", for example working with potential customers – this is precisely the function of the aforementioned sales department.

Effective use of Internet marketing is only possible if advanced technologies are added to its mix to develop a competitive strategy. With the development of digital technology, the following elements have been added by Internet marketing experts:

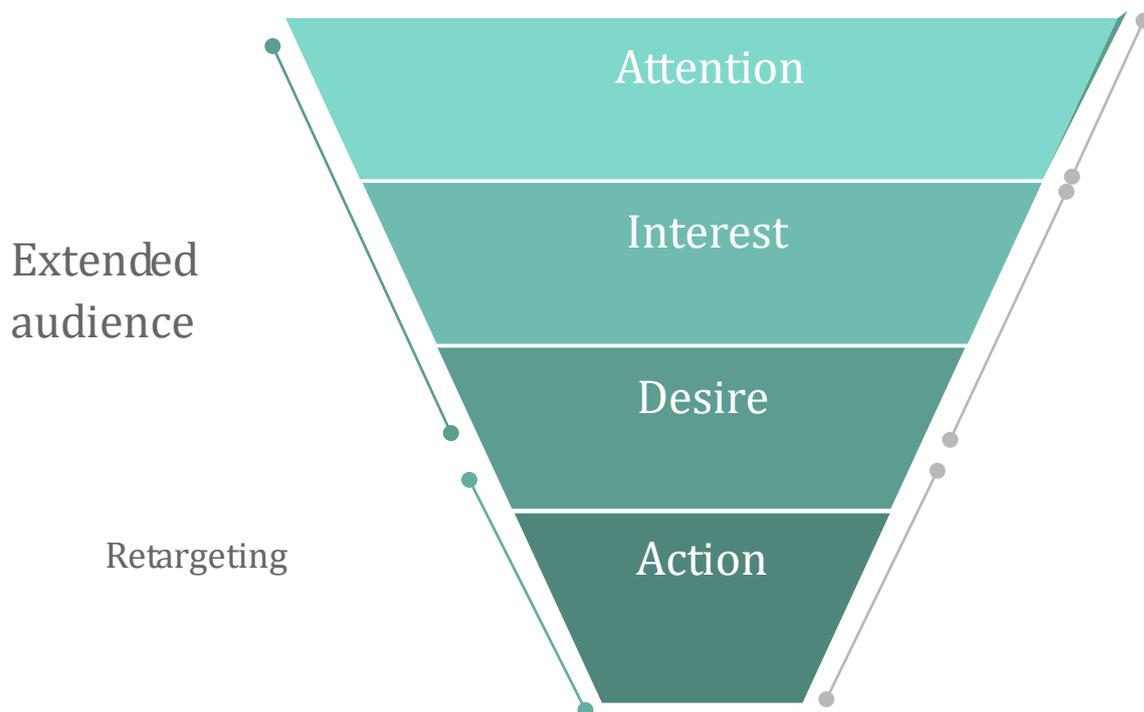
1. Digital sales funnel – principle of distribution of clients on stages of sales process from the first contact up to fulfillment of the target action (Borovyk et al., 2016).

2. Search engine optimization – a complex of measures on the internal and external development of the site to raise the position of the resource in the results of search engines for certain user queries in order to increase network traffic, the number of potential customers and further generate income (Jobber and Lancaster, 2015).

3. Web-analytics is the collection and analysis of statistical data on visits and visitors to the site in order to improve and optimize the web resource and ongoing advertising campaigns (Ganushchak-Efimenko et al., 2018).

Web-analytics site is an analysis of user behavior in order to increase conversions. The task of web analytics is to work with the sales funnel (Fig. 1):

optimizing each stage of the sales funnel and increasing conversions. According to M. Borovyk, end-to-end analytics is "analyzing the effectiveness of advertising campaigns based on sales data by tracking each customer through the entire sales funnel" (Borovyk et al., 2016). A sales funnel is a visual representation of the movement of a potential customer of a company from first contact with the company to the purchase of a product or service. The name "funnel" is not accidental, the fact is that the sales funnel is traditionally depicted as an upside down triangle. New customer requests go to the wide part of the funnel, then, passing through the stages of treatment of the request (consultation, measurement, cost calculation, sending a commercial offer), some customers, for whatever reason, decide not to cooperate with the company, visually this flow of customers appears narrowing of the funnel. The company's clients come from the bottom of the funnel. That is, those companies and individuals who have successfully passed all stages of the funnel, made a positive decision regarding cooperation, and purchased the company's products or services. The specific stages of the sales funnel depend on the specifics of the company and how sales are organized in it.



Source: suggested by the author.

Figure 1. Process optimization of each stage of the sales funnel and increase in conversion

Website conversion is affected by price, seasonality, competitors, etc., but analytics affects only advertising traffic and the interface of the site.

Let's divide web analytics tasks into two groups:

1. Solving a specific problem. Suppose there is a unique product at the best price, but there are no sales from the site. The task of analytics – to understand and solve the problem of lack of sales.

2. End-to-end analytics – a system that allows you to analyze the effectiveness of advertising based on a large pool of data: advertising sources, user socio-demographic profile, the path to the site, etc. in conjunction with the CRM-system. End-to-end analytics makes it possible to look at an advertising campaign as a whole, determine the effectiveness of individual advertising sources and search phrases and, accordingly, optimize the entire sales funnel.

Large companies such as private medical clinics, automotive retailers, and developers and real estate developers were among the first to implement end-to-end analytics. In these market segments, marketing budgets are huge, while the cost of attracting a lead (application) is often high. That is why it is important for them to understand which communication channel brings them the most clients (Jobber and Lancaster, 2015).

There is no clear date in the world when the system of end-to-end analytics appeared. The process was gradual, solving problems for businesses over a period of 10 years (Halligan, 2015).

In the early 2010s, entrepreneurs began looking for a service that would tie together all the advertising, marketing, and business metrics. And enterprising people, catching the market demand, took the idea and began to monetize it. This is how the first end-to-end analytics systems emerged.

However, in 2013, end-to-end analytics was only talked about at conferences. They only started implementing it a couple of years ago. By now it has become quite clear that in almost 100% of cases the use of end-to-end analytics helps reduce advertising costs and the cost of attracting a client.

End-to-end analytics is a system or method that allows to analyze the path of the client "through" the sales funnel. And it means linking the stages that are difficult to connect (Galaka and Kvit, 2021).

Overseas it is customary to call end-to-end analytics "Big Data Analytics", and marketing management using the integration of information systems and data analysis "Big Data-Driven marketing" and include in this term the collection, processing and analysis of marketing information to increase the effectiveness of marketing (Ganushchak-Efimenko et al., 2018).

Such a system should be able to produce a chronology of customer touches to the brand at all brand-controlled points.

Example work:

1. A click on a contextual advertisement (information about the click and the write-off of the advertising budget for that click is entered into the database);

2. Logging into the website with UTM advertising tags (UTM tags allow you to track which named ad or source was clicked from);

3. Call (through call-tracking service, the call details from the UTM tag goes to the CRM database, where all the orders are generated);

4. Order (information is inserted into the client's CRM card);

5. Transaction and statuses (information is inserted to the client card in CRM) (Jobber and Lancaster, 2015).

In the example we can call a full-fledged end-to-end analytics system, which can give out in a single profile the whole chronology from step 1 to step 5.

Despite the fact that the service allows you to significantly save the advertising budget and intelligently distribute cash flow, many businessmen have doubts about how much the tool is needed specifically for their company.

What kind of companies are suitable for this tool:

- *Large companies:*

Large companies were among the first to implement end-to-end analytics – private medical clinics, automotive retailers, as well as developers and real estate developers. In these market segments, marketing budgets are enormous, while the cost of attracting a lead (application) is often high. That is why it is important for them to understand which communication channel brings them the most clients (www.statista.com).

In addition, large enterprises aggregate large data, which cannot be analyzed qualitatively without the help of a machine.

For example, a private medical clinic, thanks to the implementation of end-to-end analytics, has reduced the cost of a call by more than half, and increased the number of patients by three times.

- *Companies with a wide sales funnel:*

When a person takes a long time to make a purchase decision, they go through many steps in the sales funnel, and each one can be the last. End-to-end analytics allows you to analyze customer behavior at every stage, from the time a customer searches for a relevant offer to the time he or she makes a decision. This, in turn, allows companies to work through problematic areas in the most detailed way.

For example, after implementation of the end-to-end analytics service one of the major players in the real estate market was able to reduce the cost of the call by 33%, while maintaining the flow of calls from potential customers. In this case, the tool helped to identify ineffective advertising platform, choose another communication channel, conduct remarketing and retargeting, as well as expand the semantics of the search query.

- *To small businesses:*

It's a mistake to think that the need for end-to-end analytics is exclusive to large businesses.

Small companies need such a tool just as much, if not more. In particular, due to limited marketing budgets, which must be spent as effectively as possible.

Globally, all tools are divided into three types:

1. The work with the identification of the client, tracking.
2. Transferring data in the right form to the right systems.
3. Data storage and processing.

Google Analytics systems are used to identify users intents.

You can use call-tracking service to track the source of each call in almost any company, which provides BATS (virtual automated telephone exchange) services.

Further via integration via API all data goes into a single CRM system, which collects all information about customers. CRM – Customer Relationship Management – customer relationship management system.

Thus, we receive in one service all information about the path of the client, which he had gone through before making or importantly, not making an order. Based on the statistics and empirical data, the company can make different decisions to optimize advertising sources, namely, to change the advertising channel or to improve its performance, change the structure of the site or to change the unique selling proposition.

The following problems of implementation of end-to-end analytics can be singled out:

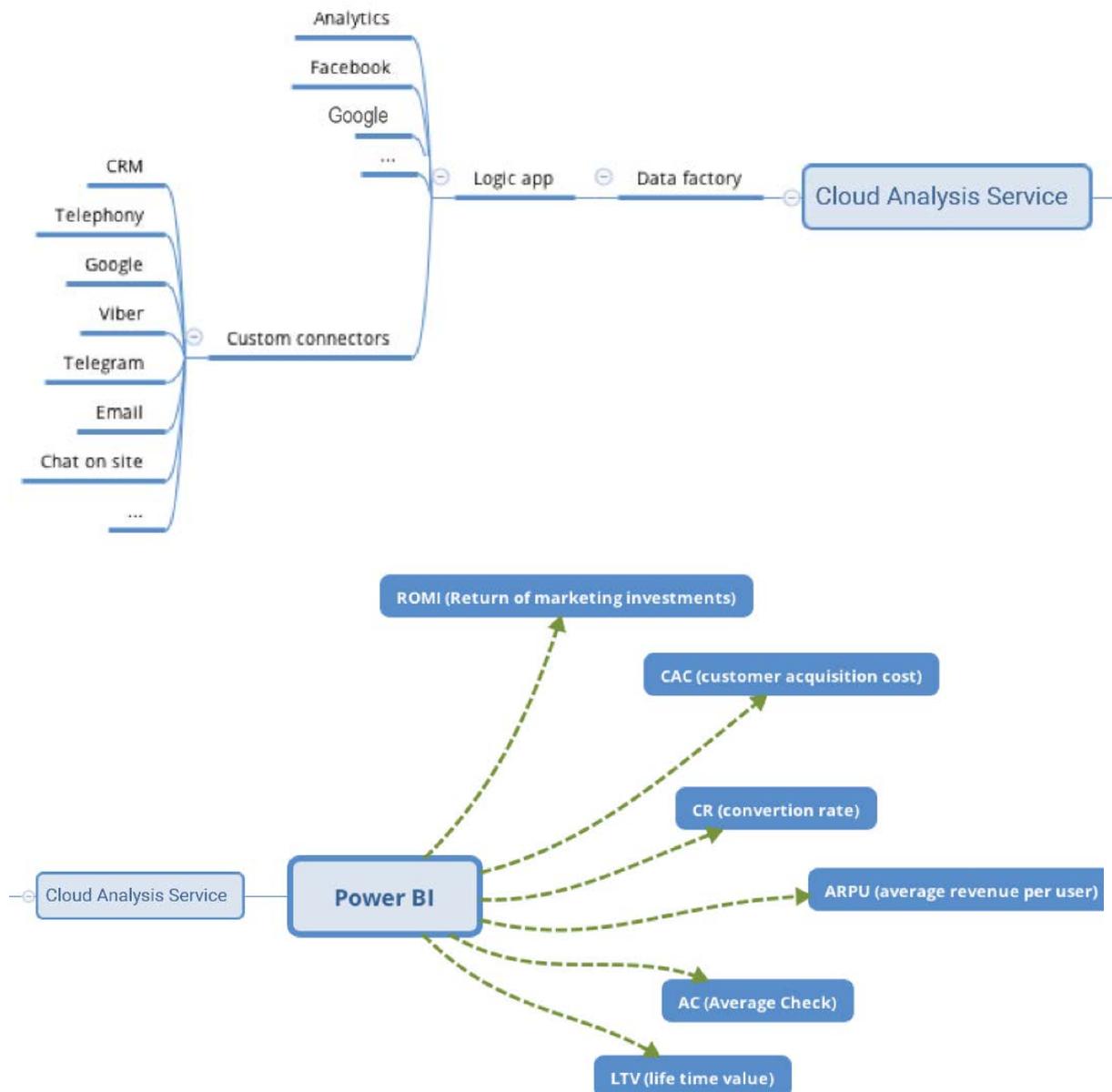
1. No understanding of the mechanics of end-to-end analytics services Client ID, counter, multi-channel sequences, attribution – not everyone understands what this is and why. As a consequence, unreasonable expectations arise.

2. No understanding of the meaning of UTM tags.

Despite the simplicity of the problem, almost everyone has it. Most companies don't understand the importance of using UTM tags in links in ads. And it is these "tails" in the links that convey very important input information about the potential client who clicked on the ad to the landing page.

3. No understanding of why call-tracking is needed.

The main problem is that the call-tracking works in such a way that each new visitor to the site is assigned a unique phone number, which is forwarded by BATS to the main number after the call. Thanks to this method, information about UTM enters the system.



Source: suggested by the author.

Figure 2. Main components of the end-to-end marketing web-analytics system

Arrows indicate the direction of information flow.

Conclusions and prospects for further research. It should be noted that the figure shows only the basic components of the system, the list of steps and analyzed data will vary under specific theoretical or practical problems. For the realization of practical tasks, the composition is directly influenced not only by the type of company and market in which it operates, but also by its size and specificity of the existing marketing information-technological architecture. Including the structure of the marketing department, information systems, used

online services and traffic sources, as well as the structure of the company's sites.

REFERENCES

Borovik, M., Zagrebelnyj, G., Merkulovich, T., Frokin, I. (2016). Performance-marketing: Zastavte internet rabotat na vas [Performance marketing: Make Internet work for you]. Moscow: Alpina Didzhital. 270 p. [in Russian].

Galaka, M. P., Kvit, G. M. (2021). Methods to increase sales efficiency based on analytical components of Internet marketing. *Innovation in education, science and business: challenges and opportunities: materials of the II All-Ukrainian Conference of Higher Education Applicants and Young Scientists*, Kyiv, November 18, 2021. Vol. 2. Kyiv: KNUTD. P. 91–95.

Ganushchak-Efimenko, L., Shcherbak, V., Nifatova, O. (2018). Assessing the effects of socially responsible strategic partnerships on building brand equity of integrated business structures in Ukraine. *Oeconomia Copernicana*, Vol. 9, Iss. 4, P. 715–730.

Jobber, D., Lancaster, G. (2015). *Selling and Sales Management*. Tenth edition. Edinburgh: Pearson. 544 p.

Ganushchak-Efimenko, L. M., Shkoda, M. S., Nifatova, O. M. (2018). Strategic approach to managing the risk of the company's business portfolio. *Management*, Vol. 27, No. 1, P. 111–118. DOI: <https://doi.org/10.30857/2415-3206.2018.1.10>.

Halligan, B. (2015). Marketers: What's Next After Marketing Automation? *Small Business ideas and resources for entrepreneurs*. 07 October 2015. URL: <https://www.inc.com/brian-halligan/marketers-what-snext-after-marketing-automation.html>.

Kingsnorth, S. (2016). *Digital Marketing Strategy: An Integrated Approach to Online Marketing*. Kogan Page.

Kotler, F., Li, N. (2008). Marketing dlya gosudarstvennyh i obschestvennyh organizatsiy [Marketing for state and public organizations]. SPb.: Piter [in Russian].

Levinson, J. C., Levinson, J., Levinson, A. (2007). *Guerrilla Marketing*. Fourth edition. N.Y.: Houghton Mifflin Company. 386 p.

Prokopenko, O., Omelyanenko, V., Ponomarenko, T., Olshanska, O. (2019). Innovation networks effects simulation models. *Periodicals of Engineering and Natural Sciences*, Vol. 7, Iss. 2, P. 752–762.

Turchin, L., Ostroverkhov, V. (2019). Modern Trends of Internet Marketing. *Regional aspects of the development of productive forces of Ukraine*, № 24. URL: <http://dspace.wunu.edu.ua/bitstream/316497/38298/1/Турчин.pdf>.

Saura, J. R., Palos-Sanchez, P., Cerda Suarez, L. M. (2017). Understanding the Digital Marketing Environment with KPIs and Web Analytics. *Future Internet*, Vol. 7(9), P. 1–13.

Statista. Retail e-commerce sales worldwide from 2014 to 2023. URL: <https://www.statista.com/statistics/379046/worldwide-retail-e-commerce-sales/>

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