Monograph

eBook ISBN 978-80-88618-24-9

2023

DIGITAL MACRO
TRENDS AND
TECHNOLOGIES
OF THE XXI
CENTURY

Part II

PRAHA

OKTAN PRINT s.r.o.
5. května 1323/9, Praha 4, 140 00
www.oktanprint.cz
tel.: +420 770 626 166
oktanprint@email.cz

Edited by

Irina TATOMYR Liubov KVASNIY

DIGITAL MACRO TRENDS AND TECHNOLOGIES OF THE XXI CENTURY

Monograph

Edited by Irina Tatomyr

Drohobych State Pedagogical University after Ivan Franko (Ukraine)

Liubov Kvasnii

Precarpathian Institute named of M. Hrushevsky of Interregional Academy of Personnel Management (Ukraine)

eBook ISBN 978-80-88618-24-9

OKTAN PRINT PRAHA 2023 Recommended for publication by the Precarpathian Institute named of M. Hrushevsky of Interregional Academy of Personnel Management (Protocol №5 dated 15.05.2023)

Reviewers:

Levan Jakeli Professor, Dean of the Faculty of Law of Batumi State University. Sh. Rustaveli (Georgia)

Justyna Krzywkowska Doctor of Law, assistant professor Department of Legal Theory and History Faculty of Law and Administration University of Warmia and Mazury in Olsztyn (Poland)

Oksana Vivchar Doctor of Economic Sciences, Professor of the Security, Law Enforcement Practice and Financial Investigations Department Ternopil National Economic University, Academician of Academy of Economics Sciences of Ukraine (Ukraine)

Editors:

Irina Tatomyr PhD in Economics, Associate Professor

Liubov Kvasnii Ph.D in Economics, Associate Professor

Digital macro trends and technologies of the XXI century: monograph. Part II. Edited by Irina Tatomyr, Liubov Kvasnii. Praha: OKTAN PRINT, 2023, 268 p.

No part of this eBook may be reproduced or transmitted in any form or by any means, electronic, mechanical, recording, or otherwise, without written consent from the Publisher

The publication is assigned with a DOI number: https://doi.org/10.46489/dmtato23-17

The paper version of the publication is the original version. The publication is available in electronic version on the website:

https://www.oktanprint.cz/p/digital-macro-trends-and-technologies-2

Passed for printing 23.05.2023 Circulation 50 copies Cover design: *Irina Tatomyr*

eBook ISBN 978-80-88618-24-9

OKTAN PRINT s.r.o. 5. května 1323/9, Praha 4, 140 00 www.oktanprint.cz tel.: +420 770 626 166

© Copyright by OKTAN PRINT s.r.o., 2023

Contents

1.	THE ROLE OF DIGITAL TECHNOLOGIES IN CREATING INCLUSIVE SMART CITIES: OPPORTUNITIES, CHALLENGES AND PERSPECTIVES Svetlana Belous-Sergeeva	7
	DIGITALIZATION IS THE WAY TO RESTORE UKRAINE'S ECONOMY Anna Blakyta , Iryna Vavdiichyk, Oksana Kondratiuk, Iryna Stoianenko	21
3.	MARKETING RESEARCH OF ENTERPRISE ACTIVITIES ON THE MARKET OF ADVERTISING SERVICES Yuliia Holovchuk, Luidmyla Dybchuk	34
4.	MOLDING OF A FAVORABLE SOCIO- PSYCHOLOGICAL CLIMATE IN THE VIRTUAL TEAM Oksana Poplavska, Nataliia Danylevych, Svetlana Rudakova, Liudmyla Shchetinina, Sofia Oleksyuk	44
5.	IMPLEMENTATION OF INNOVATIVE METHODS OF ECONOMIC ANALYSIS IN THE ORGANIZATION IN THE CONTEXT OF CHANGE MANAGEMENT AND INNOVATION PROJECTS Valerii Ilin, Inna Raikovska, Larysa Sukhomlyn	58
6.	APPLICATION OF INFORMATION TECHNOLOGIES FOR WORKING WITH TOURIST RESOURCES IN THE	

3. MARKETING RESEARCH OF ENTERPRISE ACTIVITIES ON THE MARKET OF ADVERTISING SERVICES

Yuliia Holovchuk

Candidate of Sciences (Economic),
Associate Professor of the department of Marketing and Advertising
Vinnytsia Institute of Trade and Economics of
Kyiv National University of Trade and Economics

E-mail: holovhuk312@ua.fm

ORCID ID 0000-0002-4516-109X

Luidmyla Dybchuk

Vice-Rector for Scientific and Methodological Work Candidate of Sciences (Historical),
Doctor of philosophy, docent of department of Management, marketing and business
Vinnytsia Cooperative Institute
E-mail: important@email.ua
ORCID ID 0000-0002-5412-7686

In the current business environment, the importance of marketing should not be underestimated. A large number of marketing tools and functions as a result has led to the emergence and functioning of a significant volume of individual areas of marketing activity, which in the end are all aimed at offering consumers and meeting all their needs. Given the rapid pace of market development and continuous improvement of technologies, consumers have many opportunities to choose services and products that can meet their needs as much as possible. A significant saturation of the market with information resources minimizes the prediction of consumer behavior, so to be able to predict it, an enterprise needs to have the maximum amount of marketing information.

The essence of Marketing Research in their works has been studied and studied by many domestic and foreign researchers, it is advisable to note that the opinions of most of them regarding the concept under study are quite ambiguous and have certain differences, which makes it possible to more fully investigate the importance of marketing research of enterprises and note their importance in conducting successful business activities

We can form a conclusion that marketing research of enterprises 'activities is a constant process of collecting data and information of various types, which allow us to determine the state of the market, consumer needs, conditions for the functioning of competitive organizations, research of our own resources and potential for making the most effective management decisions of the enterprise,

which will ensure the needs in the consumer market and as a result will have a positive impact on the development of the enterprise and profit maximization [1, p. 56-59; 2, p. 32-38]. The main objectives of the research of entrepreneurial activity in the field of marketing are (fig. 1):

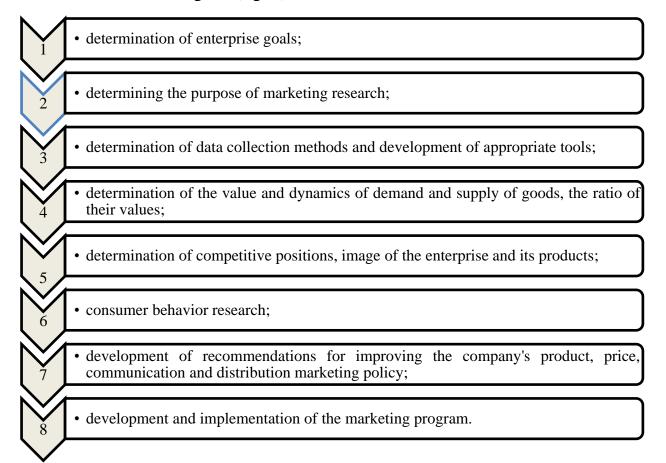


Figure 1. Task of marketing research of the enterprise

As we can see, when conducting such research, many different tasks arise, their list and composition may differ depending on what long-term goals a particular organization sets for itself and what final result should be obtained at the end of Marketing Research [3, p. 70-74; 4, p. 82-85].

A significant role in effective marketing research belongs to the principles of its implementation, compliance with which makes it possible to perform marketing research as accurately as possible, which as a result in the future will be a reliable basis for making the most correct and promising management decision.

• The principle of objectivity

the need to take into account all factors and the inadmissibility of accepting a certain point of view before the analysis of all collected information is completed.



• The principle of systematicity

the need for logical, consistent planning of actions at all stages of the market research process.



• The principle of consistency

any object of market research can only be studied if it is considered as a specific system or part of a more general system, that is, the research should cover the entire market



• The principle of complexity

carrying out work according to a single plan that covers the entire marketing research process - from the formulation of a management problem to the presentation of a report to the customer - and takes into account organizational, economic and other components.



• The principle of economic feasibility

conduct market research only if the expected benefits from the results obtained exceed the planned costs.



• The principle of universality

research can be conducted to meet any market participant's need for information to make a rational decision.



• The principle of efficiency

the research result must be obtained within a specific period of time, after which the information for the customer loses its relevance.



• The principle of regularity

conducting research with a certain frequency, which is determined by factors of the marketing environment.

Figure 2. Principles of conducting market research

Conducting marketing research is one of the main stages of conducting marketing activities of an enterprise, since through obtaining proper information, work is provided between marketers and consumers, competitors and other participants in the external and internal environment. The main purpose of conducting marketing research is to reduce the fact of uncertainty and reduce risks in making managerial decisions [5, p.150-159; 6, p. 206-208].

The essence of Marketing Research in their works has been studied and studied by many domestic and foreign researchers, it is advisable to note that the opinions of most of them regarding the concept under study are quite ambiguous and have certain differences, which makes it possible to more fully investigate the importance of marketing research of enterprises and note their importance in conducting successful business activities.

The process of conducting marketing research includes many different components that play an important role in the final result and have a direct impact on it, so it is important to carefully approach both the choice of information that will be used in the research and the methods that will be used for this research.

Regarding the information used for marketing research, it is advisable to note two main types of information:

- 1) Primary information;
- 2) Secondary information. Primary information-data that has just been obtained to be able to solve the corresponding task. The need for such information appears provided that the assessment of secondary information did not provide full data for the study and subsequent analysis.

The advantages of such information are direct control over the methods of collecting information, open access to the result for the enterprise and at the same time unavailability for competitive companies, correspondence between the goals and the task of the study, reliability of data and maximum accuracy of information obtained during the study. If we talk about the shortcomings of such information, then it is necessary to note the costs of financial support for data collection, labor resources, cost in terms of urgency (it takes a long time), the cost of attracting specialists from organizations of the corresponding type of activity to collect data [7, p. 89-92].

Secondary information is the amount of information that was collected earlier for the needs of the Enterprise, other than those that are studied in this period. Such information may not fully relate to the issue under study, but at the same time contain significant results that will be useful in the course of the study. Speaking about secondary information, it is necessary to note its availability in comparison with primary data sources, which contributes to fast search and the possibility of rapid use. However, there are also disadvantages of this type of information, such as outdated data, interpretation of the same issue from different angles.

In the current rapid pace of development of enterprises, marketing occupies a significant share, since companies to ensure the maximum use of their own

capacities and capabilities and, most importantly, profit maximization while reducing risks to a minimum for their activities and taking into account demand among consumers, require constant collection and processing of information, knowledge of the current market situation and, as a result, the ability to make timely tactical and strategic decisions, which is ensured precisely by conducting marketing research, which is carried out using the necessary methods.

Research methods in the field of marketing are quite diverse, they provide opportunities for solving many managerial marketing tasks, for example, the forecast of the competitive environment, the conditions for development in the market, the conditions for the functioning of the enterprise itself, the formation of a vision of the necessary updates and improvements in the company's work.

Currently, there are many methodological methods in the study of marketing, the main ones are the following (fig. 3):



Figure 3. Main methods of marketing research of enterprises

Depending on the scope of the audience, the following types of marketing research are distinguished:

- -Mass ones are specific to manufacturers and sellers of consumer goods, food, knitwear, and household appliances. In this area, strategies can be used to find the lowest prices, the optimal price-quality ratio, branding everything possible interest the audience.
- Targeted or focused here, it is necessary to follow a narrow circle of consumers. The main advantage of such a strategy is the maximum satisfaction of the needs of the audience, while companies that have chosen a narrow path can overstep the mark: a decrease in demand or cutbacks niches will lead to an urgent change of course or flooding of the business.
- Differentiated direction in which the company focuses on different types of clients. An example can be wholesale and retail companies, supermarkets and the offer of packages of services in various price ranges.

There is also consumer, investment, and industrial marketing, and service marketing is a special segment of the market. Not only industrial ones can manage their own strategy commercial companies, but also individual actors, freelancers, artists, specialists. This phenomenon is called ego-marketing or positioning. [7, p. 89-90; 8].

There are five basic principles that every company should practice in order to maintain your position on the market when conducting marketing research:

- Constant research of the market, forecasting its dynamics, as well as clarifying the marketing possibilities of this or that company's products.
- Planning. Preparation of production and sales plans based on analysis and forecasts.
- Segmentation. The principle is to clearly define the target group: the middle class or rich, girls or men. The idea of the "average" buyer should be clear.
- Flexibility and adaptability. The company's marketing strategy cannot remain unchanged throughout its existence as the market and needs change.
- Innovations. About 80% of the profit is received by those who use the experience in their work and bring it to life the market is fundamentally new products. But even very simple small companies are forced use innovations in their activities. [8].

In most situations, marketing research is distributed in relation to the methods of collecting information, its reliability, and data properties. Scientists consider predictive methods to be the most profitable in modern conditions. They provide opportunities to process large amounts of data on the behavior of possible consumers, combine information about their behavior and the tools they use. Information sources in such studies are the amount of data on consumer purchases, as well as information about their behavior that is not related to the purchase of services or goods (tab. 1).

Table 1. Popular methods of collecting marketing information

SMM	 specializes in the use of social networks for the functioning of communities of people interested in a particular topic, selling products, improving the image, communicating and studying the needs of the target audience. 		
SEO	 it provides optimization and adjustment of the output of information about the company on the internet; provides differentiation of the company on the internet and understanding of semantic customer requests. 		
"mobile advertising"	 a set of tools for interacting with consumer segments via mobile devices. Most companies develop applications for their own brand, chatbots, and actively use this feature in product presentation 		

Conducting marketing research has certain structural elements:

- 1. performing market research, which includes:
- supply and demand assessment;
- research of general market conditions;
- study of Market Segmentation and its capacity;
- analysis of the competitive environment;

- creating a forecast of market functioning.
- 2. performing company marketing research:
- analysis of the result of entrepreneurial activity;
- determining the competitive level of products and the company as a whole;
- assessment of the status of the company and its goods or services [7, p. 89-90; 8]. Depending on what information is used in the course of work

Depending on what information is used in the course of work, the following types of marketing research are distinguished (tab.2):

Table 2. Groups of main types of Marketing Research

- 1. Desk-use official printed sources of information, methods of economic analysis in combination with elements of econometrics and Mathematical Statistics. They give a general idea of the state of economic conditions, trends in Market Development, their state, capacity, etc.
- 3. Field-use personal contacts, primary information, and methods of Economic Analysis. They allow you to quickly get acquainted with specific market requirements, trade customs, sales methods, consumer behavior, and prices. However, they are the most complex and expensive
- 2. Pilot (trial sale methods) used when there is insufficient information about the market situation. They allow you to test new products, sales methods, collect marketing information, etc. These methods are not without the risk of incurring significant losses.
- 4. Panel research is a form of survey that involves collecting periodically repeated data from the same respondents on the same topic in order to monitor changes that occur as a result of marketing campaigns and the influence of external factors

Sources of information for the first type of research, which are shown in Fig. 1.7 above, there are both external and internal data. Internal information is all data that is obtained directly at the enterprise (all statistical information). Regarding external data, we include information that is officially published by various ministries, departments, government agencies, international organizations, local authorities, various associations or unions.

The use of desk research provides opportunities for obtaining fast and inexpensive information. Despite this advantage, such research also has certain disadvantages, the main one being that this type of information is also publicly available to competitive organizations. It is also necessary to take into account the fact that such data obtained in the course of a desk study, taking into account their collection among many participants in the process, may lead to insufficient truthful information, which may later affect the final result of such a study.

The main methods of conducting these studies include:

- traditional analysis method;
- content analysis method;

- method of conducting information and Target Analysis;
- regression method and correlation method.

Panel studies involve monitoring the price of goods or services, their quality, and the potential audience of consumers. Monitoring is a type of research, the essence of which is to provide customers with information reviews of the necessary data. In the group of panel studies, the following methods are distinguished (fig. 4):

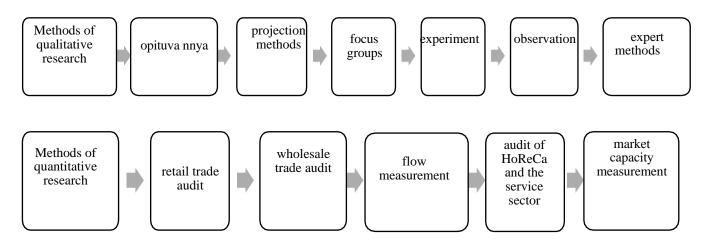


Figure 4. Panel research methods

Let's take a closer look at some of the main methods listed above. The method of observation is a method of collecting information of a primary nature through direct analysis of the object being studied in familiar conditions, as well as fixing various factors that affect the change in the behavior of the object with the help of sensory organs or the use of mechanical devices.

The essence of the survey method is to determine and record the opinion of respondents regarding the question presented in the study. The use of this method makes it possible to determine possible consumers, the level of market fullness of certain services or goods, to study the advantages of competitors, to determine the needs of consumers and the level of their satisfaction with the current product, to assess the factors of influence on consumers when choosing products, to determine how much marketing mechanisms affect consumers when making a final decision when choosing a product or service. This method is a significant way in conducting marketing research, its results should always be taken into account in the course of research and in the future when choosing the direction of activity and presenting or vice versa a particular product or service on the market.

The experimental method allows you to determine how a change in a particular factor will affect the demand for a product or service in the market. This

method is carried out through the direct intervention of the person who performs this research in a certain process in order to further establish a connection between the object and the components that will affect it. In the end, this method provides information about how the consumer will behave when choosing a product or service under certain conditions and will allow determining the need for such changes or searching for other possible options [8; 9, p. 348-351].

The next type of Marketing Research is Field Research. These include various surveys, observations, and market fullness studies of services or goods. The following methods are used to conduct field research [8; 9, p. 350-351]:

- method of empirical research;
- expert assessment method;
- economic and mathematical method.

Methods of empirical research are based on the assessment of currently functioning objects with the parallel use of appropriate methods of sociological surveys or desk research. The method of expert evaluation in the field of marketing research reveals its essence by formulating its own opinion about a particular object of research on the part of a person-a specialist in this field, who is called an expert in the framework of such research.

The economic and mathematical method is used in the process of processing research information. It should be noted that this method can also be used at the stage of data collection by conducting mathematical simulations of the studied objects, to create a forecast plan for future periods and adjust the tactical and strategic decisions of the organization.

Thus, in the course of the work, various approaches to determining the essence of Marketing Research were considered, their necessity was determined, which is explained by constant changes in the market and the needs of consumers, in order to maximize their comparison with the offer, it is advisable to conduct marketing research that allows determining the conditions and factors influencing the choice of consumers, as well as the state in the market. It was considered that marketing research has certain stages of implementation, which for maximum results must be followed in the course of work. It was also determined that the effectiveness and reliability of marketing research depends on compliance with the relevant principles.

Studying the components of marketing research, we considered the main types of research and presented the main methods of conducting them. In general, we can conclude that in the course of the evolution of marketing science, there are many methods of conducting research, all of them have their advantages and disadvantages. Each of the enterprises in conducting marketing research determines independently the type of research and methods that will be used

depending on the purpose of the study and the object, the venue and conditions, the final result and the main goal for each organization – profit maximization.

REFERENCES

- 1. Dybchuk L.V., Pchelianska H.O. (2019). Marketing and logistics model of distribution in the food market. *Problemy ekonomiky*. 3, 54-60. DOI: 10.32983/2222-0712-2019-3-54-60
- 2. Stadnyk V., Krasovska G., Holovchuk Y. (2021). Marketing dominant in models of entrepreneurial structures innovative potential development for competitive business strategy realization. *Modeling the development of the economic systems*, 1, 30-41. DOI: 10.31891/mdes/2021-1-4
- 3. Holovchuk, Y., Dybchuk, L., Serednytska, L. (2022). Kontent-marketynh yak stratehiia prosuvannia na rynok ta poshyrennia posluh. *Economy and the state*, № 4. 69–75. DOI: 10.32702/2306-6806.2022.4.69
- 4. Stadnyk V., Pchelianska G., Holovchuk Y., Dybchuk L. (2020). The concept of marketing of balanced development and features of its implementation in the food market. *Agricultural and Resource Economics: International Scientific E- Journal*, 6(3), 80-95. DOI: https://doi.org/10.51599/are.2020.06.03.05
- 5. Tanasiichuk A., Kovalchuk S., Nianko V., Boiko R., Drazhnitsya S., Holovchuk Y. (2022). Marketing Activities of Extractive Industry Enterprises in Ukraine in Overcoming the Consequences of the Corona Crisis. *European Journal of Sustainable Development*, 11(1), 147-161. DOI: 10.14207/ejsd.2022.v11n1p147
- 6. Dybchuk L.V., Holovchuk Y.O., Pchelianska G.O. (2021). Klasyfikatsiia reklamy ta yii praktychne znachennia u pidvyshchenni efektyvnosti upravlinnia povedinkoiu spozhyvachiv. *Bulletin of the Khmelnytskyi National University*. *Economic sciences*, 6(2), 204-210. DOI: 10.31891/2307-5740-2021-300-6/2-33
- 7. Pchelianska G.O., Holovchuk, Y.O., Dybchuk, L.V. (2021). Stratehichni napriamy marketynhovoï diialnosti biznesu v umovakh transparentnosti seredovyshcha. *Economy and the state*, 3, 88-93. DOI: 10.32702/2306-6806.2021.3.88
- 8. Hrafska O.I., Holovchuk Y.O., Harasymchuk N.A. (2022). Stratehichni priorytety rozvytku rehionalnoi ekonomiky v umovakh kryzy. *Economy and society*, 43. DOI: 10.32782/2524-0072/2022-43-37
- 9. Sokhetska A.V. (2020). Suchasni tendentsii marketynhovykh doslidzhen. *Business Inform*, 7, 346–352. DOI: 10.32983/2222-4459-2020-7-346-352