INNOVATION, WORK, SOCIETY

**FACTORS THAT INFLUENCE PUBLIC MARKETING:
ISOLATION AND ANALYSIS**

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Summary
In the world the study and application of public marketing in the government began to be addressed in the late 1990s. And only in the early 2000s, books on public marketing began to be published. Taking into account the positive experience of using public marketing tools by developed countries, there is a need for a thorough study of public marketing in countries that have not yet achieved high economic development. For example, in those countries until recently, there were no scientific works on the topic of identifying, researching and analyzing factors that influence the implementation of public marketing. In Ukraine only in 2021 O. Ugodnikova published scientific article on this topic. So, the study of public marketing itself is a fairly new phenomenon, particularly in Ukraine.
The aim of this paper is to determine the factors affecting the successful use of public marketing and to conduct a cluster analysis of countries by the level of success in the use of public marketing.
The following methods were applied in this paper: analysis, comparison, classification and generalization approaches.
Key words: public marketing, factors, government, cluster analysis, public administration.

1. Introduction

The governments of European countries actively apply in public administration those concepts and tools that are used by business entities in the market environment. Public marketing is one of those concepts. It is clear that in order to use the tools and mechanisms of public marketing in practice, it is necessary to interpret the concept of "public marketing", to determine the factors which are influencing the successful use of this type of marketing, etc. The study and application of public marketing in the government began to be addressed in the late 1990s. In the beginning, scientific articles by such authors as Ph. Kotler, J. Madill, K. Walsh, P. Butler and N. Collins appeared on the topic of public marketing. And only in the early 2000s, books on public marketing began to be published. So, books on the topic of public marketing were published by scientists such as S. Hohn, T. Proctor and others. In Ukraine, in the theoretical dimension, the term "public marketing" is rarely used and insufficiently developed among domestic scientists. Ukrainian scientists who did a significant

contribution to the study of the concept of "public marketing" are: K. Romanenko, E. Romat, A.O. Havrish-Musafir, I.A. Gridzhuk and V. Shatun *(Podolchak, Bilyk, Khanyk, 2020)*. However, until recently, there were no scientific works on the topic of identifying, researching and analyzing factors that influence the implementation of public marketing. In Ukraine only in 2021 O. Uhodnikova published scientific article "Implementation of public marketing mechanisms: external and internal factors of influence" *(Uhodnikova, 2021)*. That is, the study of public marketing itself is a fairly new phenomenon, particularly in Ukraine. However, taking into account the positive experience of using public marketing tools by developed countries, there is a need for a thorough study of public marketing in countries that have not yet achieved high economic development.

The aim of this research is to study the factors affecting the successful use of public marketing.

The following methods were applied in the study: analysis, comparison, classification and generalization approaches.

2. Isolation of factors affecting the successful conduct of public marketing

The marketing environment of any organization is a set of entities, conditions and forces capable of influencing its marketing activities. The marketing environment itself carries both opportunities and threats for a certain organization *(Senyshyn, 2020:109)*.

Properly conducted marketing research and available current marketing information allow organizations to take advantage of opportunities that arise and prevent negative consequences.

Traditionally, considering the marketing environment of organizations, the external and internal environment of marketing (macro- and micro-environment) are distinguished in the scientific literature *(Petrunia, 2016:38)*.

The macro environment of marketing includes a number of uncontrolled and difficult to control external factors that affect the activities of commercial organizations or enterprises. Thus, uncontrollable factors include, for example, demographic, cultural, and natural factors, and difficult-to-controllable include relationships between enterprises or organizations with suppliers, intermediaries, customers, and competitors.

The microenvironment in marketing includes a number of controlled internal factors that affect the activities of commercial organizations or enterprises. Such internal factors can be, for example, the qualifications of personnel, the competence of management, the very image of enterprises or organizations, etc. *(Starostina, 2018:6)*.

It is almost impossible for the public authorities to influence the factors of the macro environment of public marketing. For public marketing to be successful, public authorities must find ways to adapt to the conditions of the macro environment, minimizing the negative factors of the micro environment.

Thus, based on the analysis of scientific literature, it is advisable to classify the factors affecting the successful implementation of public marketing into 3 groups: completely uncontrolled, difficult to be controlled and controlled.

The factors which are affecting successfully conduct of public marketing are illustrated in Figure 1.

Completely uncontrollable factors affecting the successful implementation of public marketing include: geographical position of the country, strengthening of globalization processes, demographic factors and international political events.
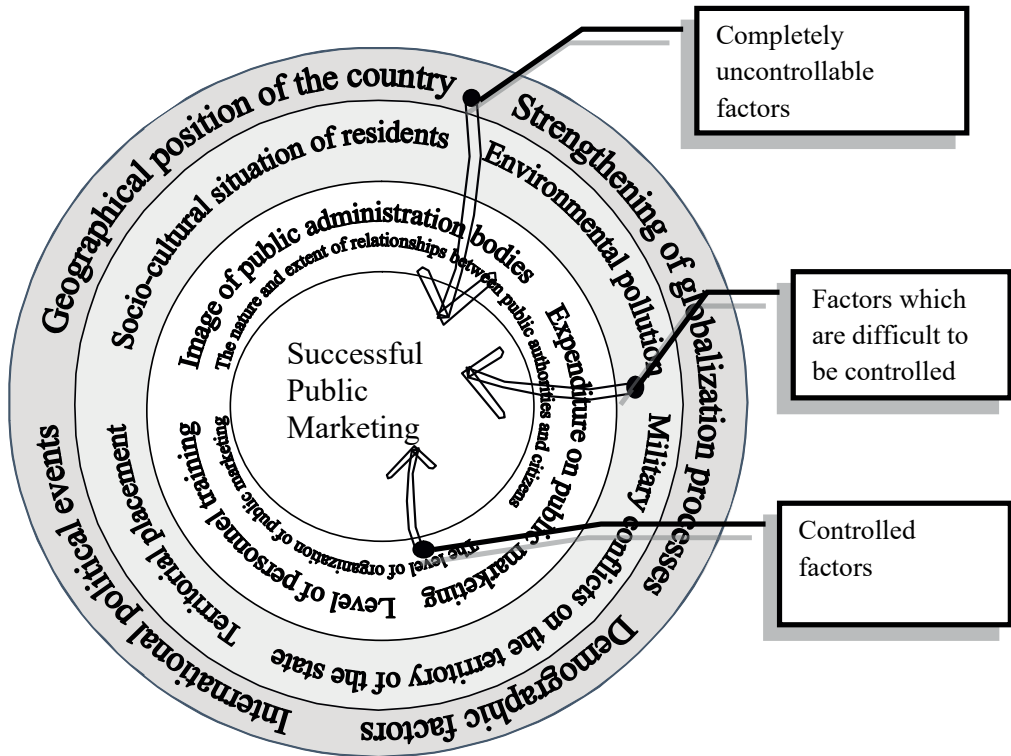
Fig. 1. The factors affecting successful conduct of public marketing

The factor "geographical position of the country" means the availability or shortage of raw materials or resources necessary to meet the needs of citizens. Reducing the impact of this factor is possible only through the development and offering an alternative of the scarce resource or raw materials for citizens, or the supply of this resource from other countries, if it is possible.

The factor "intensification of globalization processes" means the dependence of one country on other countries, and thus leads to the impossibility of fully meeting the needs of citizens within their own country.

The set of demographic factors includes the number, age, ratio of sexes, races, employment of the population, etc. Actually, the influence of this factor will be manifested in the fact that different population groups by age, gender, race, etc. will have different needs. The effectiveness of using public marketing communication tools will also vary. After all, for example, young people more actively use the Internet and social networks, so using of micro-targeting advertising for this population group will be more successful than, for example, spreading messages in the press. On the other hand, advertising campaigns on television, radio and the press will be more effective for older people.

International political events mean a change in political decisions in countries that, for example, export certain raw materials. This also includes exchange rate changes, etc. That is, these are all factors that make it difficult for countries to cooperate with each other.

Factors which are difficult to be controlled include: socio-cultural situation of residents, environmental pollution, military conflicts on the territory of the state, territorial placement.

The socio-cultural environment of the district, city, region, state refers to society within the state, which is represented by different groups of people with different cultural, religious, and traditional characteristics. All this must also be taken into account when conducting public marketing.

It is difficult to control environmental pollution in the state, but it is possible. For this, it is necessary not only to carry out campaign work among the population regarding the importance of preserving the cleanliness of the environment, but also to create suitable conditions for this. The increase in pollution also makes it impossible to meet the basic needs of the population.

The factor of military conflicts on the territory of the state is extremely negative, because state development in various areas becomes impossible, as well as the implementation of successful public marketing. Then, all the resources of the state are mainly directed only to overcoming the military conflict.

It is important to take into account the territorial distribution of the population when carrying out public marketing of territories within the state. So, if the level of urbanization in the country is extremely high, then it is advisable to direct all the forces of public marketing of territories to create campaigns for the return of the population to rural areas.

The controlled factors include: image of public administration bodies, expenditure on public marketing, level of personnel training, the nature and extent of relationships between public authorities and citizens, the level of organization of public marketing (structure). Public administration subjects have the greatest influence on this group of factors.

Well-established relationships between local self-government bodies, state authorities and citizens; properly organized structure of public marketing; a positive image of public administration bodies and a high level of personnel training with moderate expenditures on public marketing activities in the country's public administration contribute to the formation of citizens' trust in public authorities. In turn, as the use of public marketing tools can influence citizens' trust in the authorities, so the success of public marketing campaigns depends on the general level of trust in the public authorities in the country.

In general, in our time there is an active development of trust marketing, which is designed to form long-term relationships between customers and commercial enterprises, providing the latter with noticeable competitive advantages in the consumer market. Awareness of the importance of the trust factor in the commercial sector and maintaining it at a high level allows enterprises to increase their own profit. If a person trusts a company, he is more likely to purchase a product from him than from someone whom he does not trust at all. Citizens' trust in public authorities is equally important. It appears as a kind of advance in relations with regard to future activities.

3. Presentation of the factors using international indexes

The end result of public marketing is to increase the level of happiness of citizens in a certain country. It can also be assumed that the more successful public marketing is in a country, the happier the population is. The level of satisfaction with life, and therefore the level of happiness among citizens, is determined by the World Happiness Index, which is calculated annually by the UN.

Through the review and theoretical analysis of various international indices, as well as the indicators on which their calculation is based, 9 indices and sub-indices were selected. These indices have the greatest impact on the successful conduct of public marketing.

These factors are: government functioning, political participation, political culture, civil liberties, E-government, open government, lack of corruption, law enforcement, level of innovation.

The calculation of the international democracy index is based on such categories of indicators as: electoral process, government functioning, political participation, democratic political culture and civil liberties.

The "electoral process" indicator includes an analysis of the freedom, publicity and security of elections in different countries, etc. This indicator is not significantly related to public marketing, so it will not count among the factors affecting the environment of public marketing.

Analyzing the transparency of the government's functioning with sufficient public access to information, analyzing the public's trust in the authorities and studying how the public can influence the public authorities are included in the "government's functioning" indicator. It is clear that public trust in public authorities affects the successful implementation of public marketing. The openness and transparency of the functioning of the government are no less important, because this not only increases public trust in the authorities, but also indicates the level of democracy in the country. Therefore, the "functioning of the government" indicator is one of the factors which affecting the public marketing environment.

The indicator "political participation" is understood as a study of the level of involvement of citizens in the management of state affairs. The best way to meet the needs of citizens or solve their problems is to create conditions under which citizens themselves will be able to solve these problems or satisfy their needs. Actually, public marketing discovers, singles out a certain need or problem, and then public authorities try to present their solutions in this regard. However, this does not always bring a positive, expected result, because, for example, due to a lack of communication between the public and public authorities, public authorities can solve problems or satisfy needs, but not in a way that citizens would be most satisfied with. Thus, if citizens are involved in the management of public affairs, this will lead to successful public marketing rather than if citizens do not participate in the management of public affairs at all. So, this factor significantly affects the environment of public marketing.

Indicator "democratic political culture" describes the level of support for a democratic political regime among citizens; determination of the share of those persons in the country who believe that democracy contributes to achieving better economic results, etc. Just as the way to the success of public marketing is not only taking into account the opinion of citizens, but also directly involving citizens in solving and satisfying their own needs and problems, then this should be achieved as fully as possible under a democratic political regime. After all, in a democracy, the people are considered the only source of power in the state. Therefore, it is so important that citizens understand the importance of the functioning of such a political regime as democracy.

The development of electronic government makes it possible to increase the efficiency and transparency of public power, to establish public control over it. The most necessary condition for the transition to e-governance is an increase in information about activities in various spheres of public authority. That is, here we can talk about improving communication links between citizens and public authorities, which is very important in the implementation of public marketing. The e-Government Development Index (EGDI), which is calculated annually by the international organization of the United Nations, consists of three sub-indices: the index of online services, the index of telecommunications and the index of human capital. That is,

this index, in addition to the level of development of government online services, also takes into account the availability of broadband Internet access in the country and the literacy of the population in the field of ICT use. The development of e-government in various countries of the world was also classified as one of the factors capable of significantly influencing the success of public marketing.

The Rule of Law Index is also based on the calculation of a number of indicators (sub-indices). Among them, those most relevant to the impact on the environment of public marketing were chosen, namely: lack of corruption, transparency of government institutions and law enforcement.

It is clear that the presence of corruption in the government helps to satisfy the problems and needs of only a certain group of people. Thus, the government is influenced by individuals involved in corruption schemes, and the opinion of the rest of the population is not taken into account. The absence of corruption directly affects the implementation of public marketing.

The "transparency of government institutions" indicator assesses the quality and accessibility of published government information for the public. This sub-index also takes into account whether the government publishes information about its own activities at all. The importance of communication between the government and citizens during public marketing has already been mentioned previously.

The "enforcement" sub-index determines the level of fair, effective implementation and enforcement of normative acts. This factor also significantly affects the environment of public marketing. For example, normative acts can regulate the procedure for government consultations with the public or the procedure for providing government information at the request of citizens, etc. Another example here can be a normative act, which specifies the criteria for the activity of social service providers (including state ownership). That is, the adoption and implementation of some regulatory acts increases the success of public marketing.

Innovative activity in the country also affects public marketing. For example, such technical innovations as the emergence of mobile devices, computers and spread of the Internet affect the public marketing strategy, in particular, by changing the channels of promotion of public products. If once a certain public marketing decision was effectively communicated to citizens with the help of the press, then with the emergence and spread of the Internet, communication with citizens in social networks, through micro-targeting, contextual advertising, etc., are more effective. By applying innovations in the field of technology, public entities of marketing activity can deliver certain decisions to citizens faster and more accurately. It is also clear that innovations themselves are designed to improve the lives of the population. Therefore, The Global Innovation Index is also one of those capable of influencing the public marketing environment.

4. Cluster analysis of countries by the level of success in the use of public marketing

A cluster analysis was conducted using the SPSS software. At the beginning of the cluster analysis, was determined the continental region of each country and their GDP. To assign a country to a certain continental region, the List of World Country Codes for statistical purposes was used. And, for a better visualization of future results, the countries were divided into 7 groups by GDP (tab.1).

Table 1

Classification countries by GDP

The Volume of GDP	Countries included in the group	Number of countries in the group
> $20 trillion	USA	1
from $10 trillion to $20 trillion	China	1
from $5 trillion to $10 trillion	Japan	1
from $1 trillion to $5 trillion	Australia, Brazil, Canada, France, Germany, India, Indonesia, Italy, Mexico City, Russian Federation, Spain, United Kingdom	12
from $500 billion to $1 trillion	Belgium, the Netherlands, Poland, Sweden, Turkey	5
from $100 billion to $500 billion	Algeria, Argentina, Austria, Bangladesh, Chile, Colombia, Czech Republic, Denmark, Egypt, Ethiopia, Finland, Greece, Hungary, Iran, Islamic Republic, Kazakhstan, Kenya, Malaysia, Morocco, New Zealand, Nigeria, Norway, Pakistan, Peru, Philippines, Portugal, Romania, Singapore, South Africa, Ukraine, United Arab Emirates, Vietnam	31
less than $100 billion	Albania, Belarus, Benin, Bolivia, Bosnia and Herzegovina, Botswana, Bulgaria, Burkina Faso, Cambodia, Cameroon, Costa Rica, Croatia, Dominican Republic, Ecuador, El Salvador, Estonia, Georgia, Ghana, Guatemala, Guinea, Honduras, Jamaica , Jordan, Kyrgyz Republic, Lebanon, Madagascar, Malawi, Mali, Mauritius, Moldova, Mongolia, Mozambique, Myanmar, Namibia, Nepal, Niger, North Macedonia, Panama, Rwanda, Senegal, Serbia, Slovenia, Sri Lanka, Togo, Trinidad and Tobago, Tunisia, Uganda, Uruguay, Uzbekistan, Zambia, Zimbabwe	51

Dendrogram using Ward's method was built in order to determine the number of clusters in the data set. It is illustrated in Figure 2.
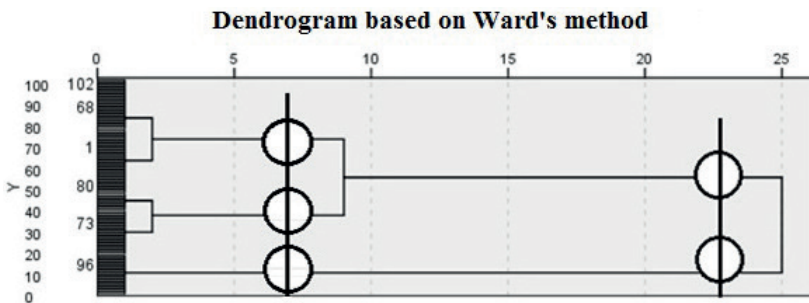

Fig. 2. Cluster dendrogram based on Ward's method

Three or two clusters can be distinguished based on Figure 2, they are marked with circles.

First of all, let's try to distinguish three clusters using the IBM SPSS software. Thus, the first cluster included 51 countries, the second – 28, and the third – 23 countries (tab.2).

Table 2

The volume of GDP in three cluster group

The Volume of GDP	Cluster			Total
	1	2	3	
> $20 trillion	0	1	0	1
from $10 trillion to $20 trillion	0	1	0	1
from $5 trillion to $10 trillion	0	1	0	1
from $1 trillion to $5 trillion	1	7	4	12
from $500 billion to $1 trillion	0	4	1	5
from $100 billion to $500 billion	12	11	8	31
less than $100 billion	38	3	10	51
Total	51	28	23	102

After analyzing the three clusters, it becomes clear that the countries of the first cluster have a much smaller GDP than the countries that are included in the second and third clusters. Thus, the average volume of GDP of the first cluster is $100 billion 679 million, for the second – $2 trillion 219 billion, and for the third – $426 billion 76 million. Thus, the first cluster can be called a cluster of mostly poor countries of the world, while the second is a cluster of mostly rich countries of the world, and the third cluster is a cluster that is significantly close to the mostly poor countries of the world in terms of GDP.

The average value of the indicators of the countries belonging to the first, second and third clusters are presented in the table 3.

Table 3

Average value of public marketing factors for three groups of clusters

Factor	Cluster		
	1	2	3
Government functioning	3,97	7,49	5,58
Political participation	4,96	7,12	6,45
Political culture	5,01	7,32	5,30
Civil liberties	4,81	7,92	6,69
E-government	0,53	0,88	0,73
Open government	0,44	0,70	0,57
Absence of corruption	0,40	0,76	0,49
Law enforcement	0,47	0,74	0,53
Innovations	22,86	50,18	34,07

The average value of the indexes (indicators) of the second cluster significantly exceeds the average value of the indexes of the countries included in the first and third clusters. Thus,

the second cluster includes rich countries with a high level of civil liberties, functioning of the government, etc., that is, we can say that these are those countries in which the level of public marketing is at a fairly high level of development. Instead, the first cluster includes countries with a rather low level of development of public marketing. The third cluster includes countries with slightly higher development of public marketing.

Considering table 3, the first and third clusters are essentially similar to each other, so let's try to distinguish only two groups of clusters, not three.

Now, the first cluster includes 74 countries, and the second – 28. After analyzing the two clusters, it becomes clear that the countries of the first cluster have a much smaller GDP than the countries that are included in the second cluster. Thus, the average GDP of the first cluster is $201 billion 816 million, and the second one is $2 trillion 219 billion. Thus, the first cluster can be called a cluster of mostly poor countries of the world, while the second one is a cluster of mostly rich countries of the world (tab.4).

Table 4

The volume of GDP in two cluster group

The Volume of GDP	Cluster		Total
	1	2	
> $20 trillion	0	1	1
from $10 trillion to $20 trillion	5	7	12
from $5 trillion to $10 trillion	0	1	1
from $1 trillion to $5 trillion	0	1	1
from $500 billion to $1 trillion	20	11	31
from $100 billion to $500 billion	1	4	5
less than $100 billion	48	3	51
Total	74	28	102

Regarding the distribution of countries by continental regions, here the first cluster includes: African countries, most Asian and American countries. Instead, the second cluster mostly includes European countries (Figure 3).

The average value of the indicators of the countries belonging to the first and second clusters are presented in the table 5.

Table 5

Average value of public marketing factors for two groups of clusters

Factor	Cluster	
	1	2
Government functioning	4,47	7,49
Political participation	5,42	7,12
Political culture	5,1	7,32
Civil liberties	5,39	7,92
E-government	0,59	0,88
Open government	0,48	0,7

Table 5 (continuance)

Absence of corruption	0,43	0,76
Law enforcement	0,49	0,74
Innovations	26,34	50,18

The average value of the indexes (indicators) of the second cluster significantly exceeds the average value of the indexes of the countries included in the first cluster. Thus, the second cluster includes rich countries with a high level of civil liberties, functioning of the government, etc., that is, we can say that these are those countries in which the level of public marketing is at a fairly high level of development. Instead, the first cluster includes countries with a rather low level of development of public marketing.

5. Conclusions

So, in this paper based on the analysis of scientific literature, the factors affecting the successful implementation of public marketing were classified into 3 groups: completely uncontrolled, difficult to be controlled and controlled. And, in this paper was important to describe and analysis third group of factors, because public administration subjects have the greatest influence only on this group. Through the review and theoretical analysis of various international indices, as well as the indicators on which their calculation are based, 9 indices and sub-indices were selected. These indices have the greatest impact on the successful conduct of public marketing. These factors are: government functioning, political participation, political
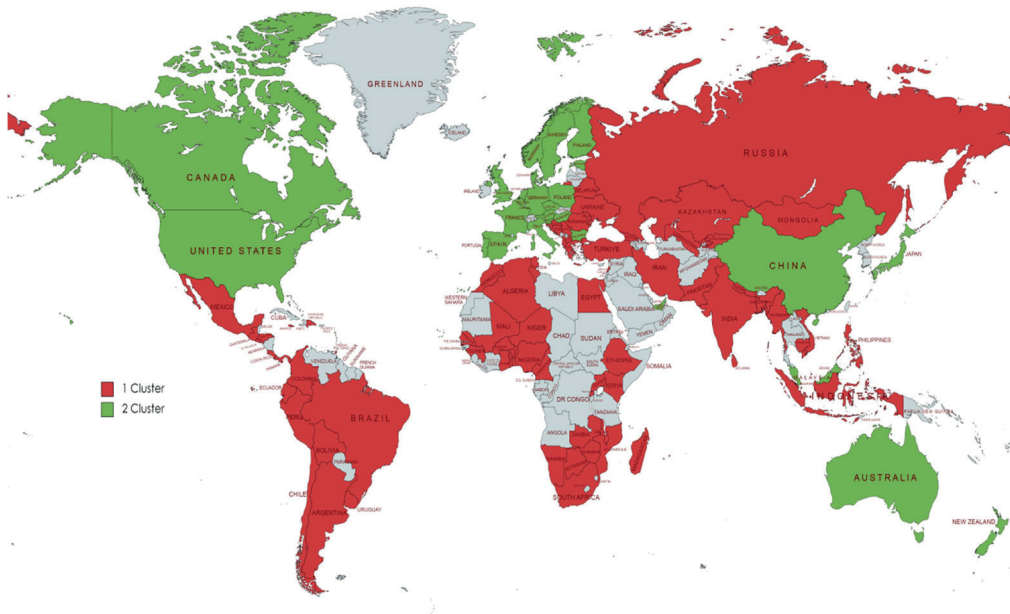

Fig. 3. The classification of countries by two clusters

culture, civil liberties, E-government, open government, lack of corruption, law enforcement, level of innovation.

To sum up, it was possible to distinguish 3 or 2 groups of clusters, using a dendrogram constructed by the Ward method. But, after analysis groups of clusters, the first and third clusters are essentially similar to each other, so in the paper was distinguished only two groups of clusters, not three. The first cluster includes 74 countries, and the second - 28. After analyzing the two clusters, it becomes clear that the countries of the first cluster have a much smaller GDP than the countries that are included in the second cluster. Also, the first cluster includes: African countries, most Asian and American countries. Instead, the second cluster mostly includes European countries. Thus, the second cluster includes rich countries with a high level of civil liberties, functioning of the government, etc., that is, we can say that these are those countries in which the level of public marketing is at a fairly high level of development. Instead, the first cluster includes countries with a rather low level of development of public marketing.

The prospects for further research is the development of ways to improve the use of public marketing in first cluster group, taking into account the influencing factors.

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