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Digital Darwinism: Digital transformation, marketing and public higher in Greece

Darwinismo Digital: Transformación digital, marketing y público superior en Grecia

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Abstract

The present study concerns the position of marketing and its digital transformation as an administrative function in public higher education organizations in Greece. The study started from the need to understand the attitudes of Greek public university managers towards the need to adopt new practices such as marketing and its digital transformation, through discourse, perceptions and explicit or implicit views, as well as the factors that shape them. Therefore, the aim of the research was based on the comparison of attitudes with the digital activities of public schools versus private companies employing marketing tactics with a strategic and tactical development of the 4 ps of the marketing mix. The methodology was qualitative in nature, employing the strategy of 'Criterion sampling'.

The results point to the fact that the duration of a university is directly related to the formation of perceptions about marketing and how to act in the context of digital Darwinism, so it can be anticipated, as a conclusion, to the need to equate public administration of higher education (university) with the tactical and functional approach of private companies.

Keywords

Digital; higher education; marketing; organizations; public; strategy; transformation.

Resumen

El presente estudio aborda la posición del marketing y su transformación digital como función administrativa en las organizaciones públicas de educación superior en Grecia. El estudio partió de la necesidad de comprender las actitudes de los gestores de las universidades públicas griegas ante la necesidad de adoptar nuevas prácticas como el marketing y su transformación digital, a través del discurso, las percepciones y las opiniones explícitas o implícitas, así como los factores que las conforman. Por lo tanto, el objetivo de la investigación se basó en la comparación de las actitudes con las actividades digitales de las escuelas públicas frente a las empresas privadas que emplean tácticas de marketing con un desarrollo estratégico y táctico de las 4 ps del marketing mix. La metodología fue de carácter cualitativo, empleando la estrategia de "muestreo por criterios". Los resultados apuntan a que la duración de una universidad está directamente relacionada con la formación de percepciones sobre el marketing y la forma de actuar en el contexto del darwinismo digital, por lo que se puede anticipar, como conclusión, a la necesidad de equiparar la administración pública de la educación superior (universidad) con el enfoque táctico y funcional de las empresas privadas.

Palabras clave

Digital; educación superior; estrategia; marketing; organizaciones; público; transformación.

1. Introduction

In Greece, there are public universities that compete with other entities, but in recent years the competition has been strengthened by several foreign universities, which is becoming even more intense in the online environment. Foreign universities, such as the British and French, are leading the way in creating modern promotional campaigns as part of an integrated marketing plan where the campaigns are the final phase of an integrated development strategy designed and implemented by the relevant marketing departments of the universities.

Kotler and Fox (2002) pointed out that several universities, in their attempt to keep up with the times, hired external advertisers, who treated the educational product like any other consumer product. Greek universities do not have marketing departments in their structure or flexible organizational culture because they follow the outdated and bureaucratic model of organizing the public sector and suffer from its bureaucratic perceptions and dysfunctions, as Featherstone (2015) has aptly described Greece as a societé bloquée 'due to the inherent systemic weaknesses of any public body: a multitude of cumbersome structures, fragmentation of responsibilities, inefficient management of human resources and resources, lack of objectives and coordination, Insufficient access to information are some of the elements that compose the Greek "administrative malpractice". All the above contribute to the lack of knowledge of the value of marketing by public universities to deal with the rapidly evolving technological and non-technological environment.

In this context, the administrations of the Greek public universities are invited to crystallize their views on the need for marketing by higher education institutions and scientists are asked to answer the question of what the real attitudes of public universities towards marketing and what factors are influence them. One of phenomena that Greek public universities must face is Digital Darwinism, which, according to Kreutzer and Land (2013) is defined as the phenomenon that threatens all rigid organizations and occurs when technology and society evolve faster than the pace adaptation of organizations. Without the operation of strategic marketing, it is considered very difficult to use digital development with a student-centered approach as a single structure.

2. Literature review

A key problem for the application of marketing in public higher education organizations in Greece is the fact of the impact of an institutional system based on pluralism and the lack of technocratic administration. According to a study by the GSEE Labor Institute, a major problem is the plethora of often conflicting laws, the result of bureaucratic logic. The public university provides services to citizens but the decision to introduce a new function may require the time-consuming process of passing a law or a ministerial decision rather than a quick internal decision of the agency (Kotler and Lee, 2006).

Many conservative academics believed that the value of education was so strong that it did not need a marketing department and no support to stimulate demand, stressing that universities should not be transformed from educational institutions into businesses or use television and other advertisements. because in this way education would use the same means as using a car or a soap to increase its demand, while proponents of marketing argued that the issue was not ethical but a matter of the survival of institutions and that "marketing, gives universities an important advantage in the difficult competitive environment they are called upon to operate" (Pelletier, 1985, p. 26).

It is time for higher education institutions to create marketing departments and use strategic marketing planning techniques, with the necessary adjustments to their non-profit character, their social and cultural role and thus be able to better serve their students, sponsors. and the societies to which they belong (Hampton and Lambert, 1994). Kotler and Fox (2002) point out that several universities, in their quest to keep up with the times, have recruited executives and external collaborators, who treated the educational product like any other consumer product Cetin (2003) agrees with the above conclusion.

The adoption of the marketing philosophy and culture by the educational public organizations requires the change of attitude for the way they are managed and operated as underlined by the Kotler and Lee (2006), while according to The World University Ranking (2020), student engagement is digitally enhanced and in some cases necessitated by new circumstances and circumstances such as the spread of Covid-19 viruses, emphasizing the need for transfer of the marketing budget from traditional to digital, to increase the digital and virtual experience of prospective students and for continuous interaction on social media, which means that every university needs a strong marketing department.

Already From the late 1970s to the early 1980s, many university administrators and academics alike, especially in the Western world, embraced the idea of introducing marketing into higher education and began looking for marketing scientists to staff new marketing departments. their universities (Smith and Cavusgil, 1984).

Burns, in 1988, in the Journal of Marketing for Higher Education, stressed that the purpose of higher education marketing is not to apply the principles of consumer product or service marketing and become a business, but the university's marketing department must adapt all the elements. of the marketing mix to the needs of the academic environment.

The need to adopt marketing and its digital version within universities has been highlighted by several researchers with the Maringe (2006) to emphasize that without the development of a marketing policy strategy, universities will continue to send different messages from their individual faculties and structures.

Many universities lack marketing structures in order to develop the necessary marketing strategies to deal with competition more effectively (Molesworth, Nixon and Scullion, 2009) while the lack of marketing department does not allow higher education organizations to operate effectively in the online environment, applying digital marketing and in particular search engine marketing, social media marketing, online advertising, post marketing, etc. (Chaffey, 2018). Even from the perspective of innovation and entrepreneurship within the university (Jiménez-Marín, Elías & Silva, 2014); or, even, since fictional audiovisual (Fanjul-Peyró, González-Oñate, Cabezuelo-Lorenzo, 2015). So, Gobble (2018) characterizes digital transformation as the process of transforming every structure of the organization, its activities and processes, its capabilities and operating philosophy, to achieve the maximum possible transformation with an impact on society, while universities if they want to to stay alive and survive, it is necessary to evolve in this direction and follow the same course as the torrent of digital spread.

Zhao, Liao, and Sun (2020) point out that many universities view digital technology as a nuisance or a necessary evil that they cannot ignore and believe that they should integrate it into existing organizational culture rather than adapt to the new digital environment. while according to a report by the international company Price Waterhouse Coopers (2018) many universities develop specific digital strategies and tactics, in response to the massive shift to new technology, but without having a vision of a continuous digital transformation.

Hayes, Ruschman and Walker (2009) studying the impact of social media as a marketing tool for a university found that there is a positive relationship between those who follow its social media pages and the likelihood of applying to study at it. Whitehead (2012) went one step further and emphasized that the internet and social media are vital tools for attracting students and McAlexander, Koenig, Schouten (2005) added that they affect the overall public image of the university. The participation of most students, i. e., potential students, in social media has been further enhanced by the widespread use of portable electronic devices, which make access to them even more comfortable and enjoyable (Michaluk, 2008).

Peruta and Shields (2018) point out that the reasons why universities use Facebook and social media are to communicate with students and alumni, to promote university news, to promote academic work, to promote research, and to recruitment of academic staff, while pIn the context of digital marketing strategy, as reported

by Carnegiedartlet (2020), most of the actions of any higher education organization are aimed at turning internet users into visitors of its websites, so the effort to optimize websites is a crucial process because the ranking in first places of the machines secures thousands of visitors to them.

3. Methodology

To examine the research question «What are the attitudes towards the adoption of the administrative function of marketing and what factors shape them?» quality research methodology was selected as the most appropriate. The choice of quality methodology was made due to the nature of the research, according to which priority is given and emphasis on the study of the ways in which the representatives of public universities perceive and interpret the operation of marketing. The phenomenon of lack of marketing function as part of the organizational structure requires the explanation and understanding of "why", a question which can be answered more effectively using the quality methodology (Silverman, 2001).

At the same time, the qualitative method of interviews helps to explore a new issue such as the adoption of marketing functions by the public university and the positive or negative attitudes towards it. I considered that the qualitative method with interviews is more appropriate for the interviewees to approach a topic without having preconceived notions about the important variables, gradually leading to the formulation of an approach for explaining and interpreting research data as opposed to the quantitative method where the variables used are conceptually predetermined, while the results are a priori predictable from the framework of the theory.

3.1. Sampling strategy

The need to study in depth the views and perceptions of a representative sample of Greek public higher education organizations and within their appropriate representatives led me to the strategy of 'Criterion sampling'. This method was chosen in order to select those cases that will be the sample of the research according to two criteria a) the position of the respondent within the university and b) the representativeness of the university.

In particular, regarding to the first criterion, the appropriate sample includes exclusively people who have a key role in the public Greek university and participate in administrative decisions such as rectors and vice-rectors. The second criterion concerning representativeness assumed that a heterogeneous but at the same time representative sample would be needed.

According to the researchers (Iosifidis, 2008), qualitative research has no numerical limitations in terms of sample size which does not need to be quantitatively large. In this context, a representative sample size was selected, consisting of ten public institutions and a corresponding number of representatives, who meet the sampling criteria, from a total of twenty-four Greek public universities. The final size of the sample was not precisely determined from the beginning but emerged from the course of the interviews when it was found that the interviews did not contain new data in the production of useful conclusions because information and concepts that had already been mentioned began to be repeated.

In particular, the interviewees have the position of rector or vice-rector and are therefore in the highest possible hierarchical position within public universities. This ensured that their views reflected the culture and philosophy prevailing at the university and through their own answers the conclusions gained special weight. The interviews were attended by representatives of public universities, of which two are rectors and four are vice-rectors.

The final selection included first the National Technical University of Athens, which is the most representative large public institution, located in the capital and has the reputation of the leading and most recognizable Greek institution. The second is the University of the Aegean which is a medium-sized acritic university, has the unique feature of operating in the largest number of different geographical locations and especially in 6 islands of the Aegean Sea. The third is the University of Western Macedonia which is one of the newest universities in Greece founded in 2003. In 2019 the University of Western Macedonia merged with the Technological Institute of Western Macedonia and has facilities in 5 cities in the Region of Western Macedonia. The fourth is the Ionian University which is one of the smallest universities in the country. The fifth is the Hellenic Open University which is a unique case among public universities due to the fact that its mission is exclusively the provision of

distance undergraduate and postgraduate education and training. The sixth is the University of Patras which is based in Patras, is the largest university in western Greece and one of the largest in the country while in 2013 it joined the University of Western Greece and in 2019 joined the Technological Educational Institute of Western Greece (TEI of Western Greece). The seventh is the University of West Attica, which is the third largest university in the country in number of enrolled undergraduate students and its establishment in 2018 came through the process of merging the TEI of Athens and the University of Piraeus Technological Sector, while in 2019 the National School of Public Health joined. The eighth is the Athens University of Economics and Business, which operates in Athens and dates back to 1903, with studies exclusively in economics and administration. The ninth is the Panteion University of Social and Political Sciences based in Athens, it is one of the most famous universities in Greece and the tenth is the University of Crete with forty years of operation on the largest island of Greece.

3.2. Data collection techniques

The technique chosen for data collection is the semi-structured interview. This technique was deemed the most appropriate to answer the research question because it can more easily reveal the conceptions of public university representatives about a virgin research area by providing open access (Flick, 2009).

3.3. Design and conduct quality interviews

The questions were designed to be open, flexible and understandable by the respondents while at the same time I tried to be as relevant as possible to the experiences of the participants. I avoided questions that are too long, ambiguous or complex that may not be understood. All individual interviews were conducted via the electronic zoom application electronically, due to Covid19, and saved in video format, in mp4 format. The interviews took place in a relatively short period of time and, in particular, on the dates 1, 2, 4, 8, 12 February, 17, 31 March and 2, 5, 6 April 2021.

3.4. Organization and analysis of quality data - Coding

The rules of notation were used to translate qualitative individual interviews into text (Silvermann, 2000) and a series of conventions were used to capture all forms of communication and interaction, such as the duration of silence, the pasting of utterances, the indication of an accent through the volume and / or volume of the voice, the accent nuances within a word, the abrupt changes in the volume of the voice, a part of pronunciation that is pronounced faster or slower than the rest of the pronunciation, etc., which are not could otherwise be included in a transliteration of spoken word into text.

For the organization of the material, the process of coding was followed, i.e., the division of the material into individual sections based on a common system of codes. Thematic analysis is the most appropriate method to identify and understand the meanings - topics within a data set and thus to have cognitive access to semantics and experiences. Regarding the way in which utilized the process of thematic analysis and in particular the coding of the theoretical categories, is being chosen a mixed process with the abductive and the deductive method.

4. Results

From the codification of the interviews emerged the following tables with grouped codes from which were formed the topics that reveal the views, attitudes and perceptions that prevail in the public Greek universities.

Table 1.Views on creating a marketing address (Theme 1: "It is considered important to create a marketing department in the Greek public university").

Codes	Theme
A marketing address is necessary for the unified image and identity of the university.	The creation of a marketing department at the Greek public university is considered important.
You need a marketing department with experts in the field.	
It's a good idea to create a marketing department at university.	
Marketing is an element of survival and growth.	
It is extremely necessary.	
Lack of marketing leadership is a weakness.	
They need to be marketing experts at the university and choose study programs.	
We cannot rely only on external partners.	
It is necessary to create marketing addresses with permanent staff.	
To speak the language of society and the language of communication we need the marketing department.	
Alternatives are necessarily used until it enters the marketing department.	
It is necessary to create a marketing address.	

Source: Own elaboration

Vice Rector 3: *«Or should (university) set up marketing addresses»*

Researcher: *«Could not (the university) work with external partners instead of internal management?» «Possibly in the beginning but the university should acquire the know-how, if we want to play a role internationally, we cannot rely only on external partners. We must develop this know-how, therefore in my opinion it is necessary to create happy addresses, first departments in the organization chart with permanent staff who should of course be familiar with marketing and especially educational marketing that has ... great peculiarities, great peculiarities (confirms by waving his hand), specialization is needed eee…».*

The above has been answered by Helgesen (2008), who points out that organizations such as the British and French Universities are leading the way in creating modern promotional campaigns as part of an integrated marketing plan where campaigns are the final phase of an integrated development strategy designed and implemented. responsible marketing departments of universities.

Rector 2: *«… (the university) also wants a scientific support from a marketing, it needs it ειδ specialists must come in and choose study programs».*

Vice Rector 2: *«… that is, I have not thought so (looks right and thinks)… I personally admit I have not thought (creating marketing management within the university), this (marketing) could be done in collaboration with external experts or telecommuting companies on a case-by-case basis, I had not thought of the idea of making a marketing address (he puts his hand on his chin as if thinking) in his organization chart…».*

Vice Rector 3: *«… we do not have the luxury, there is the public relations department, at the moment I have organized a committee for the image of the university on the internet (it has raised its hand) composed of scientists, communicators, the public relations department, people dealing with the image from the school of fine arts, some other scientists from foreign universities, all of them trying to play the role of marketer, ... »,* "Or the weakness

is identified very well, a department a marketing department to deal only with this..eeeeeeee… is extremely necessary».

Vice Rector 4: *«...the research and innovation department secretly does what a marketing department does in European and international».*

Vice Rector 1: *«Look… eh... this is one, it is a detail (looks to the right, leans on the seat and speaks) that my first reaction and spontaneous reaction is… uh.no… no είμαι I would not say I am very "a strong supporter ..of ..the establishment of a marketing department that deals exclusively with marketing issues within the university… the primary reason should be given to the teachers… I would not view the creation of a marketing department θε positively».*

Table 2. The prevailing culture in public universities (Theme 2: «The culture does not allow the university to exploit Digital Darwinism»).

Codes	Theme
Inaction creates barriers to digitization	
There are always concerns and fears about something new	
There are always reactions to change	
Teachers are thinking about what was true 30 years ago	
The culture that exists does not keep pace with the times	
There is no logic to quick adjustment	
The way teachers think is conservative	
Teachers try to maintain the existing inelastic culture and preserve it from change	
Drastic changes are needed to change the culture	
Older people are less informed	
Employee computer use means there is a culture of adaptation	
A vision of adopting change has been cultivated	
Outdated systems and negative culture	Today's culture turns the university into a candidate "victim" of digital Darwinism
Today's culture does not allow digital transformation	
The anachronistic culture is based on the size of the universities, the subject of study, the mood and the skills of the administration	
Some at the university are ideologically opposed to any form of transformation	
There is a danger that reality will throw higher education organizations out if they do not adapt	
Today's culture is negative about the new and progress	
The university community has not learned to work in teams	
There is a mixed culture, young people are more flexible than older people	
There is no flexible culture because there is a search for those willing employees who exist to address and adapt to the needs	
Eit is toxic system of operation of public universities with complete impossibility of diffusion of digital culture	
We need a new mechanism with incentives, so that there is a mood for initiative and adaptation	

Source: Own elaboration

Petkovics, Tumbas, Matkovic, Baracskai (2014) emphasize the resistances from the internal environment of the university as well as the fear for the new as cultural factors that do not facilitate the quick adaptation to the digitization and the findings identify some of the main problems and challenges of digitization as formulated which are human nature and resistance to digital change.

Vice Rector 1: *«… I have the feeling that there are barriers to digitization, of course this is due to the inaction that exists, there are always inactions… always… there are always concerns and fears always about something new…».*

Vice Rector 2: *«In general the structure of the Greek university and the public always has reactions to changes in general. In general, it does not mean, but I think because various changes have been made from time to time and this can be implemented».*

Vice-Rector 3: *«…the culture that exists does not keep pace with our time… The teachers… eeeh…. (0.3)… for 10 years they are quite conservative… .they are also> ideological <if you want it ordered … towards… concepts… .εεε… transformation..»*

Rector 3: *«Unfortunately we have a culture, we do not need advertising, we do not need one, we do not need the other, because it is a public university».*

As noted by Lawton (2015), organizational culture refers to the skeptical attitude of older, usually older, workers toward technology and manifests itself to some degree in resistance to any change and inelastic behavior of some who refuse to accept the new situation.

Rector 2: *«Of course, of course, you know now that it is a matter of the new generation as the old generations pass the new ones are… eeh... more informed… and the lower we go the older the better, it is also a matter of time…. are established situations, this is where the marketing activity should be established and little by little the upcoming university should come from the marketing activity».*

Culture is one of the critical factors for the transformation of an organism (Prahalad and Oosterveld, 1999).

Vice Rector 4: *«Ok culture as I said before parentheses… no, does not facilitate the transformation».*

Vice Rector 6: *«The system is toxic in how you react to someone who does not do their job, there is nothing you can do about it, so the inability to spread a culture of digital perception is entirely up to the integrity of each of the participants in the academic environment».*

Vice Rector 7: *«The enforcement of laws from above is no longer enough, there should be a mechanism that oversees, a mechanism that encourages, that motivates».*

Table 3. Attitudes towards digital marketing (Theme 3: «Digital marketing is considered to be of great importance for public higher education organizations in order to attract students and especially the younger generation»).

Codes	Theme
Attracting new students is done electronically	
All universities have accounts on all social media	
Young people are attracted to it (digital)	
It plays a key role in initial attraction and initial interest	
Digital marketing attracts those who are not sure what to study	
Attracting students is done digitally	
Students are influenced by digital marketing	
It's the alpha and omega of digital marketing	
It plays a role in attracting students between similar Universities	
100% of new students are attracted and digitally influenced	Digital marketing is considered to be of great importance for public higher education organizations to attract students and especially the younger generation
The role of digital marketing to attract is catalytic and unique	
Digital marketing is very important in attracting the new generation and quality students	
There is no other way to attract students	
It is the only way now for the university to have contact with the new generation	
Digital marketing applications are even more necessary when the university wants to address new students from abroad	
Necessary especially in times like the Covid pandemic19	
There is no other way for the university to attract and influence the new generation except through the use of digital marketing.	
The university does not exist if it does not exist digitally	
Digital marketing tools affect not only the younger generation but also the older ones who want to be educated	

Source: Own elaboration

Vice Rector 3: «… when this pandemic passes our life will be digital… so… YES, it is the alpha and omega, the digital marketing».

Vice Rector 2: «The existence would facilitate the existence of digital marketing, I consider it extremely important, it is obvious that the new generation is affected by it».

Rector 1: «Or I think what you said is absolutely true (that digital marketing influences the choices of potential students) …».

Vice Rector 4: «…look I think the role of digital marketing is catalytic and unique, that is, I do not think that attracting students can be done in any other way…».

Vice Rector 5: *«And it is the only way to get in touch with younger people»*.

Vice Rector 1: *«(looks at his hand and thinks the question) .. (0.4) ε eeeh marketing …used…but not so much in Greece, in… eeh»*.

4.1. The criterion of the duration of operation of a public university and the attitude towards marketing

From the analysis of the qualitative research interviews, findings emerged which were not in the original design based on the research questions but are undoubtedly important elements that lead to additional important conclusions. During the analysis of the interviews, going further, it was found that there are new correlations between the perceptions that have been formed in the universities regarding the application of marketing and criteria such as the duration of operation of the higher education institution, its size and geographical location.

Table 4 .The criterion of the duration of operation of a public university and the attitude towards marketing).

University	Year of establishment	Attitude towards Marketing	Groups
National Technical University of Athens	1837	Almost negative	A little positive
Athens University of Economics and Business	1920	Positive with reservation	
Panteion University	1930	Positive with reservation	
University of Patras	1964	Positive	Positive
University of Crete	1973	Positive	
University of the Aegean	1984	Positive	
Ionian University	1984	Strongly positive	Very positive
Greek Open University	1992	Strongly positive	
University of Western Macedonia	2003	Strongly positive	
University of West Attica	2018 (as a university)	Strongly positive	

Source: Own elaboration

In order to confirm the above findings, the behavior of two representative educational institutions regarding the frequency of organic[1] posts on popular social media studies. Social media as the core of social media marketing reflects the attitudes and culture towards marketing.

4.1.1. Attitude towards marketing and differentiation with the number of content posts on social media

Table 5 - Number of content posts on social media of the National Technical University of Athens and the University of Western Macedonia during the period 1/2/2021 - 6/4/2021[2] (Attitude towards marketing and differentiation with the number of content posts on social media).

University	Year of establishment	Attitude towards Marketing	Twitter (number of posts)	Facebook (number of posts)	Instagram (number of posts)
National Technical University of Athens	1837	Almost negative	5	14	0
University of Western Macedonia	2003	Strongly positive	59	57	20

Source: Own elaboration

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1 Unpaid posts
2 https://twitter.com/ntua, https://twitter.com/uowm, https://www.instagram.com/ntua_unofficial/, https://www.instagram.com/uowmgr/, https://www.facebook.com/uowm.gr, https://www.facebook.com/NationalTechnicalUniversityofAthens/.

4.1.2. Attitude towards marketing and differentiation based on SEO (search engine optimization) actions of website optimization (table 6).

An important pillar of digital marketing is the process of SEO (search engine optimization), i.e., the process followed by an organization in order to optimize the ranking of their website in search engines. One of the most critical factors is the time spent by the average user when visiting the website. The more time it devotes to a website, the more it is considered to be satisfactory and useful to the user and therefore gets better search engine rankings. If an institution follows optimization rules, it means that it applies digital marketing practices more faithfully.

Table 6 - Average time of users 'visits to the institutions' websites (Attitude towards marketing and differentiation based on SEO (search engine optimization) actions of website optimization).

University	Year of establishment	Attitude towards Marketing	Average duration of visit per user on the institution's website	Average group
National Technical University of Athens	1837	Almost negative	5:00 p.m.	4:75
Athens University of Economics and Business	1920	Positive with reservation	5:04	
Panteion University	1930	Positive with reservation	4:23	
University of Patras	1964	Positive	7:08	7:17
University of Crete	1973	Positive	7:10	
University of the Aegean	1984	Positive	7:35	
Ionian University	1984	Strongly positive	7:01	10:44
Greek Open University	1992	Strongly positive	7:10	
University of Western Macedonia	2003	Strongly positive	14:50	
University of West Attica	2018 (as a university)	Strongly positive	7:07	

Source: Own elaboration

Another factor is the average number of pages visited per user on the institution's website. The more pages a user visits on a website, the more it is also considered to be more satisfactory and useful to the user and therefore gets better search engine rankings and therefore in this case an institution follows optimization rules means that it implements more faithfully. digital marketing practices (Table 7).

Table 7 - Average number of pages visited per user on the institutions' websites

University	Year of establishment	Attitude towards Marketing	Pageviews[3]	Group average
National Technical University of Athens	1837	Almost negative	5.1	4.8
Athens University of Economics and Business	1920	Positive with reservation	4.2	
Panteion University	1930	Positive with reservation	5.5	
University of Patras	1964	Positive	5.3	5.2
University of Crete	1973	Positive	4.1	
University of the Aegean	1984	Positive	6.2	
Ionian University	1984	Strongly positive	5.4	6.6
Greek Open University	1992	Strongly positive	6.2	
University of Western Macedonia	2003	Strongly positive	8.4	
University of West Attica	2018 (as a university)	Strongly positive	6.4	

Source: Own elaboration

[3] Average number of pages visited per user on the institution's website

The term Bounce Rate refers to the rate of abandonment of a website by visitors, i. e., after their visit to the website they do not go to a second page but leave it. The lower this percentage, the more optimized the website is considered because it attracts and addresses the right audience, has interesting content and this is the result of inbound marketing actions (Table 8).

Table 8 - Percentage of abandonment of institutions' websites

University	Year of establishment	Attitude towards Marketing	Bounce rate Website abandonment rate	Average group percentage
National Technical University of Athens	1837	Almost negative	33.4%	34.8%
Athens University of Economics and Business	1920	Positive with reservation	34.8%	
Panteion University	1930	Positive with reservation	36.2%	
University of Patras	1964	Positive	35.5%	34.2%
University of Crete	1973	Positive	40.2%	
University of the Aegean	1984	Positive	27%	
Ionian University	1984	Strongly positive	20%	23.7%
Greek Open University	1992	Strongly positive	16.7%	
University of Western Macedonia	2003	Strongly positive	28.8%	
University of West Attica	2018 (as a university)	Strongly positive	29.3%	

Source: Own elaboration

4.2. The criterion of the size of a public university and its attitude towards marketing

An attempt was made to determine whether there is a correlation between the size of the Greek public university and the attitude of universities towards digital and traditional marketing (Tables 9, 10).

Table 9 - Grouping of universities by average.

University	Size (number of students)	Attitude towards Marketing	Groups
University of West Attica	61,574	Strongly positive	Large (More than 26,000 students)
Greek Open University	42,000	Strongly positive	
University of Western Macedonia	36,500	Strongly positive	
University of Patras	33,940	Positive	
University of Crete	21,368	Positive	Small (Less than 26,000 students)
Panteion University	20,000	Positive with reservation	
University of the Aegean	15,000	Positive	
National Technical University of Athens	13,000	Almost negative	
Athens University of Economics and Business	12,000	Positive with reservation	
Ionian University	8,000	Strongly positive	

Source: Own elaboration

Table 10. Grouping universities by scope

University	Size (number of students)	Attitude towards Marketing	Groups
University of West Attica	61,574	Strongly positive	Large (More than 35,716 students)
Greek Open University	42,000	Strongly positive	
University of Western Macedonia	36,500	Strongly positive	
University of Patras	33,940	Positive	Medium (17,587 - 35,716 students)
University of Crete	21,368	Positive	
Panteion University	20,000	Positive with reservation	
University of the Aegean	15,000	Positive	Small (up to 17,587 students)
National Technical University of Athens	13,000	Almost negative	
Athens University of Economics and Business	12,000	Positive with reservation	
Ionian University	8,000	Strongly positive	

Source: Own elaboration

4.3. The criterion of the geographical location of a public university and the attitude towards marketing

The interviews showed a separation in those universities that operate and have their headquarters in a large city and in those located in the periphery. (Table 11).

Table 11. Grouping of universities by geographical location.

University	Geographic location	Attitude towards Marketing	Geographical location groups
University of West Attica	City Urban	Strongly positive	Urban
University of Patras	City Urban	Positive	
Panteion University	City Urban	Positive with reservation	
National Technical University of Athens	City Urban	Almost negative	
Athens University of Economics and Business	City Urban	Positive with reservation	
Greek Open University	Rural Region	Strongly positive	Rural
University of Western Macedonia	Rural Region	Strongly positive	
University of Crete	Rural Region	Positive	
University of the Aegean	Rural Region	Positive	
Ionian University	Rural Region	Strongly positive	

Source: Own elaboration

5. Conclusions

We conclude that the conditions regarding the need to create a marketing department at the Greek public university have begun to mature. The administrations of Greek public universities have begun to look for ways to deal with the ever-increasing competition, which is particularly felt in the online environment and the vast majority have now realized this need to implement a unified marketing strategy by specialized staff to adapt to rapidly changing conditions.

The amateur use of certain marketing applications by universities or the outsourcing of some services to external partners has not brought the desired results and the creation of marketing departments with specialized executives for the first time is recorded as necessary for Greek public universities.

However, there are ratings even between the positive attitudes and perceptions, but there are also some individual voices which due to entanglements could be considered almost negative. There is a positive

relationship between the recent establishment and operation of a university and its attitude towards the adoption of marketing, that is, the younger a university is, the more positive it is in adopting its marketing strategy and digital transformation, and vice versa, the older the wary.

There is a positive relationship between the large size of a university and its attitude towards the adoption of marketing, that is, the larger a Greek public university is, the more positive it is in the adoption of its marketing strategy and digital transformation, but the opposite is not true. there is no positive relationship between smaller and medium sized universities with an absolute attitude towards marketing.

Finally, there is no positive relationship between the criterion of a university's geographical location and its attitude towards marketing adoption, however there seems to be a more positive relationship between location and operation in the region and the need to adopt a marketing strategy and digital transformation. of.

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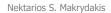Pelletier, S. G. (1985). To Market? *Educational Horizons*, 63(2), 54-60.

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