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ONLINE PRESENCE MANAGEMENT AND DATA GATHERING PROCESS IN THE ROMANIAN HIGH-TECH SMALL AND MEDIUM ENTERPRISES

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Abstract: *As the customers interaction progressively moved into a data-driven online world, the companies have to be aware of the newest technologies and cybernation trends in order to survive on the digital market. A systematically data collection activity and data manipulation know-how can lead to educated guess and an increase in the offer personalization degree. Being aware of the online activity importance and continuously find new ways and channels to interact with the customers hopefully build trust and a personal company-customer relationship.*

The aim of this paper is to give a clearer understanding on the data gathering processes and to analyse the online channels where a company should communicate with each individual. There is also reviewed the way Romanian small and medium enterprises (SMEs hereafter) in the high-tech industry are building their online presence and collecting customer data, to ensure their online presence management.

The main instruments used for the current research, to determine companies' approach on data gathering and online interaction, were the phone interview - as qualitative research and the questionnaire – as quantitative research. The analysis was done on SMEs from Romania in the high-tech industry. Thus, hopefully will open the way for further research and development in the area, given the digital marketing approach.

JEL classification: M31, O00, C80

Key words: Digital Marketing, Online channels, Customer Data, Data Analysis

1. INTRODUCTION

It is noticable that the internet has managed to differentiate itself from all other communication channels. For this reason, companies are now able to gather a lot of information about their customers. Building a digital marketing strategy is crucial for a company to take full advantage of technical progress (Kotler, 2017).

The companies using digital marketing get a wealth of data about their customers. However, it is important that data collection is done in a way that allows for optimal decision making. An integrated customer vision is considered to be a good starting point (Stokes, 2013).

Thus, it is recommended to use technologies that can provide detailed information about customer actions in the online environment. For example, a technology that determines the source of traffic to a website can determine what percentage of site visitors come from email and what percentage of a paid ad, which visitors can be converted faster, where the budget should be increased. and where it should be reduced. Making decisions based on information from digital marketing campaigns is a crucial step in implementing and justifying the digital strategy (Dodson, 2016).

Thus, data collection and usage in an organized way can help companies to provide as personalized offers as possible to existing customers and potential buyers. This is the main reason why this research wanted to address this topic,

1. THEORETICAL FRAMEWORK

The classic marketing approach has evolved, coping with the continuous growth of demand for customized products, customer data and the need to have a constructive dialogue with the customers, using personalization (Piller, 2014).

The amount of big data coming from everywhere, starting from the website, social media or direct calls, helps companies to know their customers, to make analyses and forecasts. But in order to use these large amounts of data wisely, companies need to automate their marketing processes through marketing automation tools (Provost, 2013). In recent years, various models and principles have been developed, some of them being presented below.

1.1 3i Model

The 3i model is a digital marketing strategy, presented by Ian Dodson in one of the best-known books on digital marketing "The Art of Digital Marketing". He states that the 3i model

is the foundation of all digital marketing methodologies and is the key to any successful marketing strategy. The name is given by the 3 principles to be followed: initiation, iteration and integration (Dodson, 2016).

Data comes in place when talking about the integration, the emphasis being put on the reporting sources integration. It is stated that companies that use digital marketing get a wealth of data about their customers. However, it is important that data collection is done in a way that allows for optimal decision making. An integrated customer vision is a good starting point. Thus, it is recommended to use technologies that can provide detailed information about customer's actions in the online environment. For example, a technology that determines the source of traffic to a website can determine what percentage of site visitors come from email and what percentage of a paid ad, which visitors can be converted faster, where the budget should be increase. and where it should be reduced. Making decisions based on information from digital marketing campaigns is a crucial step in implementing and justifying the digital strategy (Dodson, 2016).

1.2 TCEO Model

TCEO is one of the popular models that laid the foundations of Digital Marketing. It classifies marketing efforts into 4 main actions: Think, Create, Engage and Optimize (Stokes, 2013).

Optimization refers to continuous improvement. Provides knowledge through analysis, data extraction, conversion optimization and testing (Smith, 2012). Optimization is relevant and essential at every stage of the process. Planning, research and strategy are important for the execution of digital marketing campaigns. As part of executing these strategies, the companies need to create digital assets, then use various channels to drive traffic to those assets and build relationships with visitors. As all of this is put into practice, it is important that the following are known: "does it actually work?", "how could everything work better?" (Honeycutt, 2014). This is where optimization comes in: the process of tracking, analysing and optimizing digital assets and campaigns to get the best results. Campaigns are tracked, analysed and optimized (Greenberg, 2010). These three steps form the TAO model. With easy-to-use reporting interfaces and powerful web analytics tools now available from a variety of vendors, companies should know what happens with each of their campaigns. Constant use of data to understand how visitors behave and how their behaviour can be influenced leads to conversion optimization. Web analytics data should be used not only to

report the performance of digital campaigns and assets, but also to understand how they can be improved (Kaushik, 2010).

1.3 5P Model

Understanding customers is essential for any successful business, which is why Search Marketing is considered an important environment for data collection and understanding of the customer (Maheshwari, 2015). With each search, users leave behind important data that contains personal information, and the use of the 5P model, defined by the Digital Marketing Institute (DMI), can help a better understanding of the customer. The 5P model includes the following variables: Person, Place, Product, Priority, and Purchase (Dodson, 2017).

The information collected about the person or searcher may include age, gender, religion, language and socioeconomic group. So as, an informed assumption can be made about the user profile and for obtaining highly detailed information, which can provide key information, analysis technologies are used (Maheshwari, 2015).

Regarding the location, data about the country or city where a user is located can be collected and whether the location is classified as urban or rural. From the search querry, the companies can see the exact location from which a search was made and using the analysis tools it can see, in certain situations, the exact location of the user (Buttle, 2016).

Finally, the key to all this can be summed up in one word: relevance. The most relevant search results will always be displayed to users. Customer search behavior is something that companies need to consider when it comes to online optimization (Chaffey, 2006).

2. RESEARCH METHODOLOGY

The aim of the current paper is to perform the analysis and present the results related to data collection processes and automatization, part of a wider research on the Romanian SMEs in the high-tech industry.

The main objectives of the research are:

- achieving the current state of knowledge in the field of digital marketing on the Romanian SMEs' market
- determining the degree of acceptance of marketing technologies by SMEs in the high-tech industry on the Romanian market
- identifying and exploring the benefits of implementing digital marketing technologies

2.1 Research methods

The research methods and specific working tools are: consulting the conceptual and methodological aspects in the relevant bibliographic sources, conducting a study, including a qualitative research in the form of an interview and a quantitative research in the form of a questionnaire on the Romanian high-tech SMEs, while presenting the main statistics regarding digital marketing technologies (with emphasis on data collection process) for the researched population.

2.2 Qualitative and quantitative research sample

The main sampling framework consisted of Romanian SMEs in the high-tech industry. More specifically, companies holding the following characteristics: NACE code 620 - Information technology service activities, with a number of employees of less than 250 and a net annual turnover of up to EUR 50 million. The official statistical data on the autonomous SMEs on the Romanian market show that at present there are 1016 active enterprises that conform to the previously defined criteria.

The qualitative research sample comprised people holding a leadership position in the marketing departments of the analysed companies (Marketing Manager or Chief Marketing Officer). The interviewees were contacted in advance on the business-oriented social network - LinkedIn or by email. After the purpose of the research was explained and their consent was obtained, they were interviewed by telephone. For this purpose, about 60 companies were contacted, finally obtaining 8 agreements for conducting interviews.

The sampling framework for this quantitative marketing research was similar to the qualitative one. As the exact number of the researched population is known, it was therefore possible to apply the random sampling method directly to the population. In the end, a total of 352 people were contacted via LinkedIn, the response rate (positive) being 71.87%, while another 50 companies being reached by email, in this case the response rate being only 10%. Finally, the questionnaire was filled in by 264 respondents. There were 6 invalid questionnaires due to lack of information provided in some questions, so the final sample numbered 258 subjects.

3. DATA ANALYSIS

3.1 Qualitative research

For the analysis and interpretation of the answers obtained from the 8 interviews, the content analysis was selected as a method of qualitative data analysis. Vertical content analysis helped determine how each company conducts its marketing and digitization work, providing a clear picture of each entity. The horizontal analysis offered the possibility to analyse the answers at sub-topic level and to draw important conclusions regarding each aspect studied. The research results were divided according to the topics and sub-topics addressed, in accordance with the interview guide, the most important results for the current paper being presented below.

The systematic collection of customer data has become an increasingly important aspect of marketing activity, due to increasing competition and offers, available data and the need to treat customers as individuals. However, the interview results show that only 3 out of 8 companies surveyed collect customer data. The other 5 subjects stated that they do not have this activity in their current marketing plan or competence.

As 5 of the 8 companies surveyed do not collect customer data, there was no answer on how to use the data, this topic being conditioned by a strictly positive answer to the previous question.

For the 3 subjects who stated that there is a systematic collection of customer data within the company, the first step pointed out on data usage was the storage of collected data in Customer Relationship Management software for later use. As for the main purposes for which data is used, they have varied. 2 out of 3 companies use data for marketing campaigns - to personalize messages and increase customer loyalty. Only one respondent said that the data is also used to identify the history of interactions, while another subject mentioned the billing process automation as the main utility of customer data. As can be seen from the 3 answers, data collection and use are of increasing importance, while contributing to the reduction of manual tasks within companies.

3.2 Quantitative Research

The quantitative research data was processed in the software dedicated to statistical analyses, SPSS, version number 19. The relevant results of the analyses are presented in the following section.

As previously identified, a topic of great relevance and utility in the digital market is Big Data. The data collected and used in an organized way can help companies to provide as personalized offers as possible to existing customers and potential buyers (Mayer-

Schönberger, 2013). This is the main reason why this research wanted to address this topic. One of the research questions asked the respondents whether or not the company collects customer data at the moment.

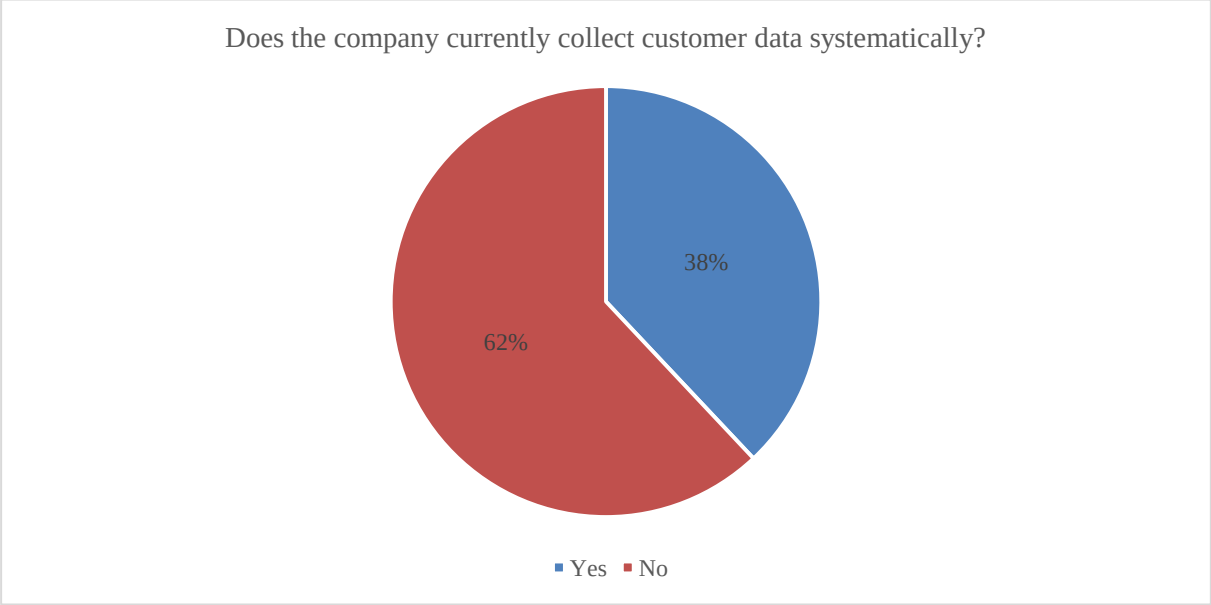

Fig. 1 - Systematic collection of customer data

Figure 1 shows that more than half (62%) of high-tech SMEs on the Romanian market do not collect customer data, while 38% of respondents answered this question affirmatively.

The next question wanted to find out about the degree of automation of some marketing activities. The respondents were asked to indicate the answer on a scale of 5 to 1 (5 - Very high, 1 - Very small). For the optimal analysis of the answers, the average for each variant was calculated.

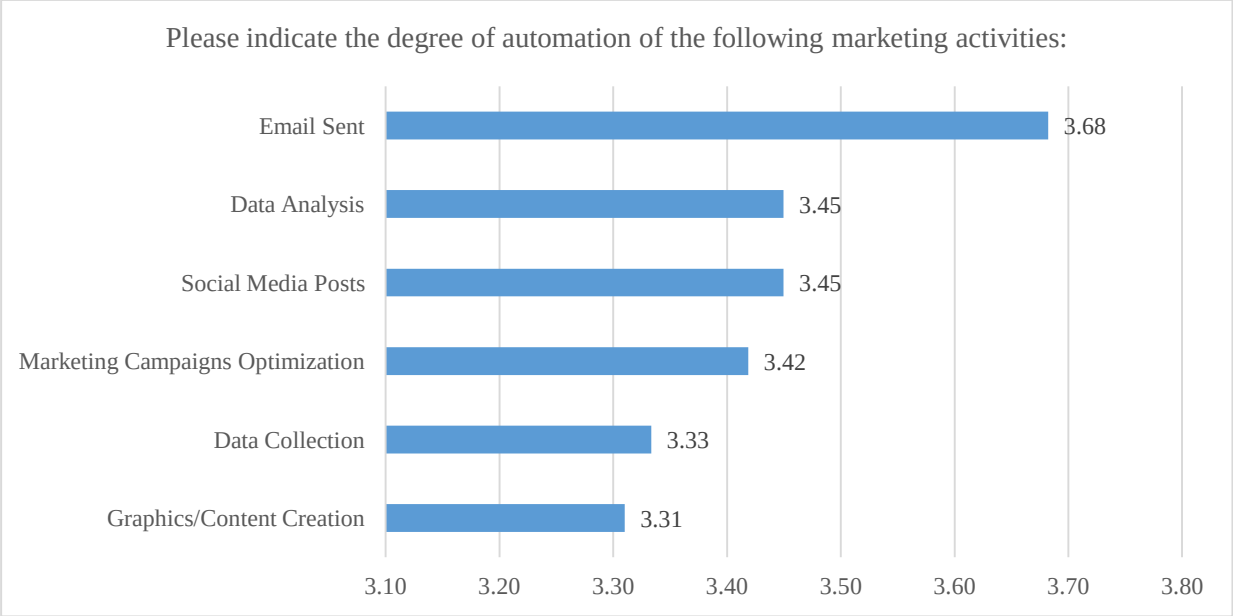

Fig. 2 The degree of automation of marketing activities

All the averages obtained were above the automation level 3, tending towards the positive side of the scale. Figure 2 shows that the activity with the highest degree of automation is sending emails, with an average of 3.68, followed by posts on social media and data analysis. The last places rank data collection and content creation with an average degree of automation of 3.33 and 3.31.

3.3 Hypothesis testing

In order for research data to be given meaning, they must be interpreted. The interpretation of the data is done by defining a series of specific assumptions the expected result of the research and by using various statistical methods to confirm or reject the assumptions. In statistics, assumptions are called hypotheses, and statistical tests used for this purpose are called statistical tests (Brownlee, 2019).

Following the research, the most representative hypotheses will be tested, the results being interpreted and detailed according to the values obtained from each statistical test.

H0: At most 50% of the studied companies do not collect customer data in a systematic way.

H1: More than 50% of the companies studied do not collect customer data in a systematic way.

H0: $\pi <= 50\%$

H1: $\pi > 50\%$

According to the data obtained in Table 1, the average of the binary characteristic is 0.64. This means that 64% of the companies studied do not collect customer data in a systematic way, with a standard deviation of 0.482.

Table 1 - Descriptive statistical indicators at the sample level

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Does the company collect customer data?	258	.64	.482	.030

To see if the difference is statistically significant, the t-Student test was applied, data obtained being presented in Table 2.

Table 2 - Data obtained from the application of the t-Student test

One-Sample Test

	Test Value = 0.5					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Does the company collect customer data?	4.519	257	.000	.136	.08	.19

It is observed that the significance level (Sig. 2-tailed) is equal to 0.000, the value being less than 0.05. Thus, the alternative hypothesis H1 is accepted, so more than half of the studied companies do not collect customer data in a systematic way.

CONCLUSIONS

Although data collection is an important action aiming at analysing the current behavior of potential customers and determine the future one, less than half of the studeid companies are doing accordingly. Data is not used in order to optimize marketing campaigns in all situations, as currently the main objective of the Romanina SMEs is just the automation of recurring tasks in the interaction with existing customers. The lack of data collection process does not, however, lead to a lack of personalization of customer interaction. Most likely using the data provided in real time (without storing it later), almost all studied companies stated a high degree of personalization of the content offered.

Regarding the profile of the Romanina high-tech SMEs, the current research analysed them from several angles, namely: technology, automation, customers. When it comes to investing in advanced technology or digital marketing activities, more than half of the companies do not collect customer data. The degree of automation of marketing activities is medium, data collection being positioned almost in the end.

In conclusion, the researcher considers that the results obtained from the study are optimistic, showing a high interest of the Romanian high-tech SMEs on the subject of digitalization. This can lead to an increase in the current degree of digitalization of companies by designing marketing plans aimed more at digitizing activities in this field and by allocating a specific, larger budget. The studied companies have the potential for digitization but it is not used at full capacity. The existence of concrete development plans could lead to rapid growth in this area, by using existing resources combined with the allocation of new resources (staff, technologies, know-how, etc.).

CONFLICTS OF INTEREST AND PLAGIARISM: The authors declare no conflict of interest and plagiarism.

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