

Main Factors in the Adoption of Digital Marketing in Startups

An Online Focus Group Analysis

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Abstract — The main purpose of this paper is to help small businesses such as startups to successfully adopt and implement digital marketing as a strategy in their business plan. Given that many of these companies have a considerable number of fragile internal characteristics, such as a lack of access to financial capital while lacking also qualified human resources, they can't adopt a technology without first evaluating how it would affect them. With this in mind, this study will go through several stages of qualitative analysis to find the most relevant and important factors in the adoption of digital marketing in startups. We are looking to validate the results of each step with experts in the field; in order to do that an online focus group tool will be used so that the digital marketing specialists can propound their opinions.

Keywords - Digital Marketing; Startups; Enterprises; Adoption Models; Focus Group; Information Systems.

I. INTRODUCTION

The advent and subsequent popularity of the smartphone – which is, in effect, a small pocket-sized device with at times quite remarkable computing power – is without precedent. The smartphone, adopted on a global scale and in record time, since the introduction of the iPhone 1 in 2007, means that students may know the answer to questions posed by lecturers in class before the end of the interaction – simply by way of doing a Google search. This means that even modes of teaching need to change, in view of this information revolution, or classrooms will be empty, with students preferring to spend their time doing something else seen to be more worthwhile. As regards companies and their offerings, be they services or physical products, company CEOs and marketing officers need to make the communication of their offerings user-friendly and their online purchase very easy and accessible to would-be consumers roaming the Internet. Marketing officers need to be fully versed regarding how online social networks work, while also being experts in online advertising – be it with Google or with Facebook, to name two current popular outlets where consumers are to be found (and oftentimes for more time than is deemed good for them). The information revolution also means that the

consumer targeted by a firm may be accessed with ever-growing accuracy, as the privacy issue is still in heated debate.

With the growing use of the Internet, especially Web 2.0, it has become increasingly important as time passes to consider the use of digital platforms for the dissemination and expansion of a company's business process [1]. There is a growing requirement for small firms to possess secure and well-formed knowledge when they decide to adopt a certain technology, since they often have a limited financial budget, which restricts the error margins of companies to invest in new technologies [2]. In order to help startup companies adopt digital marketing more safely and with prior knowledge of the most relevant factors they may encounter in the process, this paper will make a qualitative analysis of the factors identified more often in scientific studies, through a bibliographic review of similar scientific works. Via a qualitative analysis of the variables obtained by the development of a questionnaire for technical digital marketing professionals in Portuguese startups, we will be able to analyze the importance they give to the adoption variables identified by the authors [3]. In this way, in future work, we can create an adoption model for digital marketing technology using the most important variables that were identified by professionals in questionnaires. A focus group will also be used to validate the determinants.

Thus, firstly, a theoretical framework on marketing and digital marketing is presented, as well as on the current scientific research of acceptance, adoption and use of digital marketing in startups. Subsequently, the adopted research method is presented, followed by the analysis and discussion of results, with the article finalizing with some final considerations.

II. THEORETICAL FRAMEWORK

A. Marketing and Digital Marketing

Since the onset of the Internet people have been closer and with easier access to services and products. However, as demand increases, so does supply, and in a constantly growing and challenging business environment, it is necessary to know how to stand out in the middle of all of the rival companies in order

to reach the greatest number of customers successfully. With the need for companies to solve the previous problem digital marketing appeared.

Drucker [4] defines marketing as *“the process by which economics integrates into society serving human needs”*. Skacel [5] states that *“it is what we do to get more consumers to use more services or buy more products, to meet more needs and more often”*. According to Levitt [6] it *“is the process of attracting the customer”*. According to Kotler [7], *“marketing is the social and management process through which individuals and groups obtain what they need and desire through the creation and exchange of products and values”*. The Digital Marketing Institute refers to digital marketing as being *“the use of digital technologies to create an integrated, targeted and measurable communication which helps to acquire and retain customers while building deeper relationships with them”* [8]. As we can see, there is no complete consensus on what marketing is. The perspective of each concept presented above goes through the social procedure of customer acquisition, going through the sales process. However, regardless of their differences, there is something in common between all of them: action in relation to the market.

One of the main objectives of digital marketing is to understand how consumers use new technologies and enjoy this information in favour of the organization, allowing a more efficient interaction with their target audience. Briefly, digital marketing should not focus on the technologies, but on the consumers/target audience. Basically, *“Digital Marketing is the application of marketing concepts in the digital environment”* [9]. Through this interconnection between the network and marketing positioning it is possible to produce a strong brand online. Several researchers have debated the advantages and disadvantages of digital marketing [10]. The truth is that, while everyone agrees on the existence of advantages, they have conducted studies with distinct perspectives, which has consequently led to somewhat different conclusions, as well.

B. Acceptance, Adoption and Use of Digital Marketing in Startups

There are several studies on the use of models to characterize the adoption and the implementation of new technologies at the enterprise level. These models enable researchers to have a view of the major determinants that must be considered as potential influencers in the process of incorporating the referred technologies. As argued by Karahanna et al. [11], these models offer valid arguments that allow managers, users, as well as the academic community, to gain a better perception on the application and potential of new technologies, with the purpose of being used in a more productive way.

“As digital marketing is a recent concept, especially when it comes to its application to SMEs (that have reduced resources and cannot make risky investments), there is an increasing demand for studies focusing on the adoption of the referred technology by small and resource-limited companies, to reach a full understanding on what might be the obstacles and determinants of the adoption process.” [12] Digital marketing is a relatively new technology that faces numerous changes daily, with the goal of better serving the users of this strategy around the world; although the number of research works on this subject

is somewhat reduced, it should be noted that there has been a slight increase in studies related to e-marketing in recent years. These results become even less significant when we filter out business-oriented jobs, especially in small businesses or startups.

In order to perform a valid analysis of the existing scientific literature, a research article was developed previously, presenting a survey and study of the most relevant articles published on models of adoption in technologies similar to digital marketing [12]. In this article, we have made a list of all the variables that were identified in the various articles that made up the literature review. Therefore, it is necessary to identify the most relevant variables for the study of adoption models for digital marketing, in order to overcome the lack of research work. For the development of this model, not only the variables identified above were taken into account, but also the use of the adoption models explained previously and the various contexts of existing factors.

III. PRESENTATION AND ANALYSIS OF RESULTS

A. Online Focus Group Conceptualization

A focus group is a qualitative research technique widely used to produce an analysis of information technology in scientific studies [13] [14]. One of the advantages of focus groups is that they provide for innovative results, shared by carefully selected experts in a field, at an economic cost (as compared to doing individual and separate interviews, for example). In summary, this method consists in the formation of discussion groups with experts from a given area. The groups can usually contain 6 to 10 people brought in to exchange opinions on particular topics in which they are experts. According to Morgan [15], the use of the focus group is appropriate for scientific studies when the objective is to find, through a discussion, what people consider about an experience, technology, idea or event. In a more recent study by Oliveira and de Freitas [16] it is suggested that the focus group be used to guide and refer to research, to generate hypotheses based on the perception of informants, to evaluate different research cases, to develop interviews and questionnaires and to obtain interpretations of participants' results based on a theme and initial study. Let it be noted that the focus group moderator or facilitator needs to be a seasoned and capable researcher, who works well with groups. The moderator thus needs to channel the discussion to productive topics – without limiting input and while guarding against certain research set-backs. These set-backs (also possibly originating errors) may include, but are not limited to, people not sharing their knowledge as they fear offending or at least unsettling the group.

In the authors' point of view, focus groups have the advantage of being able to reach a greater number of observations than individual interviews, since the debates show behaviors and issues that would otherwise not exist. With the innovation of information technologies, there was also a strong evolution and change to the focus group method presented previously; the online focus group process, also called e-focus groups appeared [17]. Considering this more recent aspect of the qualitative method, some of the negative points of the normal focus group, such as the difficulty of grouping together people in the same space during the same period will be eliminated;

furthermore, analyzing the data will be much easier, since everything is recorded in writing, and there will also be less social embarrassment linked to people with greater communication problems or socially introverted.

B. Characterization of the Online Focus Group Participants

For the development of the online focus group, it is necessary to select the two main players – the moderator and the participants. For the role of moderator, someone who is experienced with moderating conversations and online forums (as mentioned above) is preferred, so that they can engage respondents in the question session and allow participants to present their ideas. In the case of the respondents, they can be selected virtually, always being subjected to a pre-inquiry with the purpose of verifying personal data and their framing in the intended profile. Using the steps proposed by Schröder and Klering [17], our online focus group will include specialists in Digital Marketing with proven experience in the area, in order to better analyze the proposed variables in the explored business environment.

According to the purpose of this scientific research, the participants will be selected by their years of experience in digital marketing related professions, as well as by academic degree, with participating marketers from areas like academia, public administration and private companies with experience in the field being preferred. The distribution of the characteristics of the participants can be seen in table I below.

TABLE I. PARTICIPANTS' CHARACTERISTICS

Education Level			Professional Group			Professional Experience (years)		
Undergraduate Degree	Master's	PhD	Academics	Public Administration	Private Companies	0-5	5-10	>10
20%	40%	40%	30%	30%	40%	20%	40%	40%

C. Characterization of the Study Variables

In the previous study it was possible to perceive that digital marketing is a vital technology for the development, sustainability, performance and profit increase of organizations [12]. With the objective of establishing the most important variables from the previous 45 which were identified, the matter will be discussed within the expert group; this will help pinpoint the sub-set of variables considered as the most relevant to the technology adoption process. That being said, 27 variables were chosen (table II). This number was obtained from the frequency with which each variable was referenced in a scientific study; for better results, we decided to apply a threshold level of 5 or more references per variable, as well as to take into account some variables that were identified by the authors as having greater importance for this case study itself.

TABLE II. THE 27 VARIABLES USED FOR THE SURVEY

#	Variables
1	Attitude of the decision maker
2	Perceived benefits

3	Capacity of experimentation
4	Compatibility
5	Complexity of strategic orientation
6	Trust
7	Top management trust
8	Costs
9	IT dependency
10	Expected effort
11	Ease of use
12	Social influence
13	Technological infrastructure and support
14	Observability
15	Top management involvement
16	Expectable performance
17	Industry pressure
18	Government pressure
19	Coercive pressure
20	Customer pressure
21	Mimetic pressure
22	Regulatory pressure
23	IT readiness
24	Financial resources
25	Top management support
26	Size
27	Perceived utility

D. Description of the Data Collection Method

Once the variables were identified and the respondents were found, they were asked to select the level of importance of each variable in the digital marketing adoption process. The level of importance in this case translates into the degree of adversity that a certain factor presents to the company, for it to choose not to adopt a technology. The classification of importance will be measured on the Likert scale with 7 different levels, in which level 1 is the one corresponding to "No Importance" and level 7 to "Very Important". According to Colman et al. [18], this seven-value scale has a strong consistency of results because it prevents neutral responses.

In order to validate the results obtained from the questionnaires within the group of participants, the initial questions and an alignment of the issues were presented to the specialists in order to promote the discussion between them; hence, they could expose their ideas more efficiently in the expected time frame. The online focus group was conducted through online forum tools, with the moderator having the responsibility to encourage active participation from group members. After all the questions had been answered, what was exposed in the online focus group was collected and analyzed. The results found will be explored in the next topic.

IV. RESULTS ANALYSIS AND DISCUSSION

A. Validation of the Questionnaire Data

During the first round of discussion, the questionnaire was conducted and all respondents reached a consensus.

We then analyzed which variables were most often identified as very important on the Likert scale. This classification will be presented in table III in order to better identify which variables had better results. To properly define the most relevant variables, the research team defined a threshold value with a mean of 6. That is, all the variables in which the average was below this value were considered as not relevant for the adoption of the technology, and all variables with the mean greater than or equal

to 6 were taken into account for adoption and defined as important for the process to actually happen.

TABLE III. MEAN VALUES AND STANDARD DEVIATION OF EACH VARIABLE

#	Variables	Mean	Standard Deviation
1	Top management involvement	6,30	0,35
2	Financial resources	6,30	1,36
3	Top management support	6,30	0,64
4	Expected effort	6,20	0,64
5	Top management trust	6,10	1,07
6	Social influence	6,00	0,53
7	Attitude of the decision maker	6,00	1,18
8	Perceived utility	5,90	0,53
9	Expectable performance	5,90	0,64
10	Trust	5,90	1,25
11	Customer pressure	5,80	1,03
12	Technological infrastructure and support	5,80	1,18
13	Ease of use	5,80	1,28
14	Observability	5,70	1,05
15	Costs	5,60	0,45
16	Coercive pressure	5,50	0,90
17	Complexity of strategic orientation	5,50	0,73
18	IT readiness	5,50	0,45
19	Mimetic pressure	5,40	0,90
20	Perceived benefits	5,40	0,64
21	IT dependency	5,40	0,99
22	Industry pressure	5,30	1,03
23	Size	5,20	0,99
24	Regulatory pressure	5,10	1,92
25	Compatibility	5,00	0,99
26	Capacity of experimentation	4,70	1,18
27	Government pressure	4,50	1,84

We can also verify that there are 13 variables with the average between 5.5 and 6, which makes these strong candidates to take into consideration after the discussion in the focus group. These variables include expected performance, confidence, customer pressure, ease of use, coercive pressure, observability, and decision-maker attitude.

The discussion group validated the variables selected by the previous questionnaire, whereby it was also debated that the three variables that were the most relevant were the expected effort, the participation of the organization's top management and the company's financial resources. After the experts gave their feedback regarding each of the cases, the attitude of top management gained more prominence; therefore, this was deemed by specialists to be the most determining variable for the adoption of digital marketing in startups. In this case, remarkable effort was established as not so decisive, the reason being that during the debate, outsourcing services that companies may choose to do were repeatedly discussed.

Factors related to the technological context were absent in the questionnaire, and the group of experts decided to include the observability and confidence factors in the highlighted variables. The integration of observability was selected after addressing the topic of the low quotation of experimentation capacity in the technological context, in which experts reinforced the fact that the power of observability of a technology and its corresponding use would be more relevant than having a trial version for use.

B. Discussion of the Theoretical and Practical Implications

Because of the previous extensive qualitative analysis, it was possible to conclude, through interactive discussions, that the results are valid and aligned with the data of the validation questionnaire. We can also affirm that although all variables are considered important, in several scientific studies the authors only selected a portion of them because the level of importance changes from technology to technology and with each business environment involved in the process. For this reason, we identified the most important and impactful determinants for the adoption of digital marketing, resulting in the survey of ten adoption variables, since these were the ones that had an average value greater than or equal to 6, this being the relevant degree in the Likert scale.

In summary, this study offers a theoretical analysis of the adoption of digital marketing in startups, by taking a look at the most relevant articles and scientific studies around information technologies; the panoply of data helped to better analyze the progress and evolution of the concepts related to the theme. Furthermore, the study brought forward a robust conceptualization of the most current concepts accepted by science for analysis and future use by scientific research, allowing scholars to use the highlighted final variables seen as relevant to the authors for a qualitative analysis.

This study hopes to contribute to a faster and more efficient adoption of digital marketing in companies by identifying the most important factors related to the endorsement of this technology. The final goal of this research is to offer companies more awareness of the dangers involved and more valuable tech-related knowledge in order to proceed with the adoption of new technology in the business environment.

C. Limitations and Future Work

In all scientific studies, it is important to make a survey of all the limitations the matter presents, as well as what future work it may bring. In the case of our research topic, it is clearly important to keep up with the trends and changes in the field, especially since information technology is constantly evolving in order to meet the needs of companies and also of customers. Therefore, it is important to observe the theme and to verify if the variables considered as important remain prominent in what concerns the adoption limitations of a technology.

Regarding the way the results of this scientific study have been achieved, it may be concluded that there may be some lack of validation of results due to difficulties encountered in assessing the degree of knowledge of the experts in the discussion group, as well as their state of mind and willingness to respond to the inquiry; on that account, it can be argued that during the debate of ideas the individual characteristics of the experts could have affected the answers given.

In future work, the Delphi method might be used as a method of interaction and communication between researchers and experts, where the results can help solve the adoption of technology as such; the technique implies that the collection of information is anonymous and is done through several phases. This method aims to offer a unified structuring design between specialists through controlled responses [19]; and it is accepted and used worldwide in the areas of information and

communication technologies [20] [21] [22]. The most important phase of the Delphi method is to review the responses until results are presented with an acceptable range of errors. The reception of information and analysis in this study is based on Schmidt [19], which divided the Delphi questionnaire into three phases: brainstorming, reduction, and ranking. Raising the maximum number of surveys answered by marketing professionals in Portuguese startup companies helps with knowing their opinion and what variables they identify as the most preponderant for a company to carry out the adoption of this technology. Taking into account the previously conducted surveys, we believe that the adoption of digital marketing will be directly related to the variables identified. This will certainly enable us to present a model with the most preponderant variables for the adoption of digital marketing.

V. FINAL CONSIDERATIONS

In conclusion, we hope that all those interested in adopting digital marketing as a business strategy will take as a starting point of their analysis a survey of the theoretical components of the work and of our published article, as well as the results obtained by this research team. The work was carried out with the utmost rigor, commitment, and honesty, to allow for the inclusion of this study in relevant scientific works.

Throughout this work, the objectives initially proposed were fulfilled, and satisfactory results were found in order to be able to respond to the main objective and research problem of this paper – "What are the variables that contribute to the adoption of digital marketing in Portuguese startups?" Thus, it was possible to successfully achieve the main objective of this scientific work, by presenting a complete list of the variables relevant to the theme.

We propose that this work be a starting point for a greater analysis on the determining factors of digital marketing adoption in small companies such as startups, through a robust theoretical study and the presentation of a set of variables relevant for adoption; this will allow startups and other companies to take into account the limitations and their degree of importance in the acceptance rate of digital marketing in their company.

It is undeniable that the digital revolution has brought new prospects and prominence to the digital marketer, who has thus gained in importance in relation to other traditional company functions. Just as Henry Ford revolutionized factories and production sites with the mass-produced motor car, and just as IKEA principles more recently revolutionized how furniture is bought and sold, so has the era of apps and digital platforms revolutionized how firms market their products. To let this revolution pass by unnoticed will spell doom to the best of enterprises – as all need to embrace what society is turning to and how it is communicating – including buying – around the clock and from however remote the location may appear to be. Finally, small start-ups and incumbents may stage battle on equal grounds on the Internet – and so digital marketing could

not be more critical to startup firms at this current stage in human development.

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