Pay Per Click Attribution: Effects on Direct Search Traffic and Purchases

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Abstract—This research focused on the relationship between Search Engine Marketing (SEM) and traditional advertising. The dominant assumption is that SEM does not help brand awareness and only does it in session as if it were the cost of manufacturing the product being sold. The study is methodologically developed using an experiment where the effects were determined to analyze the billboard effect. The research allowed the cross-linking of theoretical and empirical knowledge on digital marketing. This paper has validated that, this marketing generates retention as traditional advertising would by measuring brand awareness and its improvements. This changes the way performance and brand campaigns are distributed within marketing departments, effectively rebalancing budgets moving forward.

Keywords—Search engine marketing, click-through ratios, pay-per-click, marketing attribution.

I. INTRODUCTION

SEM tools such as Pay Per click (PPC) traffic and its sustained causal link with the advertiser's website visits (direct traffic) and subsequent conversion represent a relevant research topic for the emerging knowledge production in advertising management contexts in the digital age [1]. Concerns about its value are the backbone of our research, with brand awareness and what concerns the value of clickthrough rate or CTR as contributing parameters in understanding digital marketing from the perspective of digital consumers during an internet search [2].

A. Problem Statement

The interest in this topic is substantially based on the previous studies consulted and cited as the basis of the argumentation that has been exposed. However, advertisers have only had at their disposal information generated through descriptive studies in broad contexts, in which there is evidence of the need to undertake future research under empirical approaches supported by causal relationship designs, to obtain specific data on the performance of their digital marketing strategies in metrics such as direct traffic, the number of sessions, click-through rate and conversion rate, issues that together with the understanding of the meaning given by users to brand awareness they are repeatedly noted as matters of interest for future research. Despite this, it is surprising that there are few empirical studies on this. The investigations reported are still incipient in terms of the methodological perspective of the empiricist-correlational-causal approach and regarding experimental or multi-method designs that include qualitative information complementary to the explanatory one, so it is necessary to develop heuristic lines that consider directly analyzing causal relationships sustained between the SEM and the referred metrics, to evaluate the "billboard effect" with greater experimental precision. In the same way, the interpretation and understanding of the narrative of the users regarding the perception of the brand is a combination of approaches that ensures a more holistic view of digital marketing.

B. General Theoretical Framework of the Study

An organization has strategic resources that give the opportunity to develop competitive advantages over its rivals (improve results). Resources are very diverse, but their characteristics are values that must be tangible, unique, difficult to imitate and irreplaceable. This sets up the company with a sustainable competitive advantage [3]. One thing is the resources that an organization has, and another thing is the capabilities, what a company can do based on the resources it has. The dynamic capabilities are knowing how to improve and adapt to changes in the environment [4]. This resource-based approach is fully in place to address current issues. Marketing tools and new digital marketing tools represent these resources and capabilities that can give an organization a competitive advantage over its rivals.

With the advent of Web 3.0 and the Internet, companies are adapting and using digital marketing. Following the signature-focused definition of the American Marketing Association [5], digital marketing could be considered as the process of creating and communicating a product in which value is added for customers and other stakeholders, who participate in institutional activities and protocols mediated by digital technologies. To this, we add that the purpose of digital marketing is to achieve a deep knowledge and understanding of the customer to the point that the product or service sells itself by being appropriately tailored to the customer [6]. We also add the perspective that all parties involved participate in a process in which an adaptation occurs whereby organizations synergize with customers and partners in creating, communicating, delivering and sustaining the value intrinsic to the product or service. [7] And more and more companies are striving to have a stronger presence on the Internet in general and in search engines (SE) in particular. These SEs have become the strategic platform for companies [8]. They have become the main source of information for users and there are studies that demonstrate their effectiveness in directing traffic to relevant brand

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offerings [9].

Search platforms work with two advertising formats, these are SEM and Search Engine Optimization (SEO) approaches. SEM works primarily on keyword-based searches and website visibility in SEs. An adequate advertising budget, but above all a concordance of keywords, plays a vital role in the result [10].

The adaptation process developed by these digital technologies continues to create value in a different way in these new digital environments and builds fundamental capabilities to create that value together for your customers and the organization. These processes enabled by digital technologies create value through new customer experiences and through interactions among customers, in addition to referring to the points of contact resulting from that digital activity developed by the company [7].

To the above it is necessary to add what Christodoulides et al. [11] said in relation to marketing and, particularly, with respect to brand value when they suggest "that emotional connection, online experience, responsive service nature, trust, and fulfillment constitute five independent, yet correlated dimensions of the construct". This shows disagreement with those who conceptualize it only as the passive or reactive result of the marketing intervention.

Research proved that consumers move through the various channels at various stages of the purchase process, from knowledge and familiarity, to evaluation and purchase of the service or product. That is why Anderl [12] considered that "interaction effects between contacts across channel types indicate an increase in purchase propensity and thus serve as a good proxy for progress in multistage purchase decision processes". This may be linked to the fact that consumers who consistently receive value during their journey through the purchase funnel are more likely to be loyal customers, an issue that tends to be achieved when generating data obtained by analyzing the path followed from the purchase funnel; first contact until the conversion is made.

Customers can collect information from SE-focused research and read reviews from other customers on retailer sites or third-party forums not controlled by the seller. In addition, in the digital environment, customers can move forward in their decision-making journey in fundamentally new ways.

The above approach, explored from the perspective that the consumer is co-creator of the meaning of brand value, is consistent with the arguments of Baye et al. [13] that brand awareness should be included as a strategic part of SEO, due to its beneficial effects on traffic and organic clicks, so they consider that investments in this parameter are essential. They assert that, once insured by other click drivers, "consumers tend to click retailers that are more recognized, trusted, have reputations for providing value (in terms of prices, product depth or breadth), service (well-designed websites, return policies, secure payment systems)". This mirrors the approaches presented by Kotler and Keller [14] regarding the basic assumptions of the Zaltman Metaphor Elicitation Technique (ZMET). Regarding this, we must add what Baker et al. [15] reported with respect to the fact that the behavior of individuals responds to environmental stimuli and that these are processed internally to emit a response or behavior, preceded by affect and cognition. In reality, consumer behavior coincides with the dominance adjusted to the environment, whose connotative character is handled in the double of the restriction and, at the same time, the promotion of the action and behavior of the individual, since it has been exposed to marketing and brand knowledge and value has emerged. Seen from this perspective, digital marketing has better elements of judgment that also allow to argue, for example, the billboard effect, through which indirect mechanisms encourage a brand to take advantage of collateral advertising platforms to appear before the consumer and make the sale or improve its market positioning. Regarding this, Chiou and Tucker [16] state the following: evidence suggests that when third party sellers emphasize the brand name in their advertisements, they do not stand out and customers are more likely to make a purchase through the direct channel, after ignoring sponsored offers.

The above has a competitive advantage in the digital environments referred to by Kannan [7] when he states: Significant transformations in consumer behavior are predicted, derived from digital technologies and devices, such as the Internet of Things (IoT) and various products associated with artificial intelligence, as well as those related to deep learning. Therefore, the prospects are promising in terms of research that is limited to this theoretical framework, in which digital marketing, brand awareness and the billboard effect interact synergistically to serve as an argument and basis for answering the questions of research raised here. This is despite the fact that much cooperative research is still needed among academics, clients, advertising agencies and goods and services companies.

C. Main Contributions of the Research and Research Gaps

The purpose of this study is to evaluate the sustained causal relationships between positioning marketing (SEM), as digital marketing tools, in relation to direct traffic (DT), CTR, and their causal link with results. Advertisers' product and service conversion goals and the possibility of interpreting users' perception regarding brand awareness in qualitative terms are included within the heuristic intentions. It constitutes a relevant contribution by generating updated data in a substantial and contextualized way for the analysis of attribution models [17] that allow a better understanding of the characteristics of this new synergy between technology and marketing, in the hands of the main entities involved (agencies, companies and consumers), since the main considerations for budget and investment decision-making are extracted from them [18].

The knowledge that will emerge in the terms described is in tune with the most advanced in the advertising industry. It is confirmed that this study will contribute to both academia and the advertising industry, laying the foundation for future research but also making marketing work more efficient. It will provide more empirical evidence to explain the current state of knowledge in this area. It also highlights the contributions regarding the profitability of the campaigns. In strictly academic terms, the contribution to research programs related to digital marketing is evidenced by a multiplicity of empirical and methodological information of considerable importance.

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In accordance with the above, this research is framed in the proposal of a theoretical and empirical contribution conceived in the context of a heuristic line that, although it has predecessors in a broad environment, specifically requires the sum of greater efforts to address objectives of knowledge on digital marketing in quantitative and qualitative perspectives, which considers the dynamism of emerging and disruptive ecosystems in which agencies interact with their campaigns, potential clients and the product/service they offer.

II. Literature Review

SEM emerges as a relevant issue in digital advertising and has gained greater relevance in today's cyber society. This study considers the theoretical background on SEM and the conventional metrics described in broad contexts, but taking into account the need for future research that addresses the issue from more pragmatic perspectives. In the research used as background, the SEM is revealed as a digital marketing tool in association with conventional metrics, directly and indirectly, known as an approach to the billboard effect, a very useful information provider for strategic management.

Based on the above, the keywords that guide this study are positioning marketing, brand awareness, direct search traffic, conversion rate and click-through ratio, in addition to the billboard effect.

The internet has produced significant cost savings in many sectors of the economy, impacting its productivity. It helped lower prices for consumers, resulting in faster growth in living standards. This huge development generated high digital dividends, promoted trade, made the use of capital more efficient and has been stimulating greater competition, to the point that institutions and companies switched their efforts to access potential customers through marketing strategies consistent with the reality of a market in permanent digital evolution according to the World Bank Group [19]. Also remarkable is the growth of the online search were "the average consumer now practices, about twice per day, an activity that barely existed 15 years ago" [20]. There are over four billion people choosing to shop over the internet [21]. This shift in paradigm [20] meant advertisers changed their marketing budgets from offline (Television, radio or print) to online (Facebook, mainly Google) following those consumers who prefer the less intrusive navigation inside the SEs compared to television [22]. Online marketing forced advertisers to continually reinvent themselves in order to respond to the growing competition to reach, convert and later generate loyalty in their prospective clients. Classic brands had to create new competitive advantages in order to remain perceived as innovative and aspirational, hence there is a digital transformation being built in order to keep up with the speed of innovation required to operate in this new field.

In this context, for native e-commerce entities, two techniques emerged above the rest. The first one is SEO strategies which mean increasing the amount and quality of visitors to your website through non-paid techniques, mainly through writing good quality content [13]. Second is SEM which consists of an advertising model where advertisers pay every time a user clicks on one of their advertisements [23]. Google alone made $134 billion in revenue from advertisers in SEM. The latter is the bulk of the investment and where we would like to focus especially on this paper.

Traditionally, an SEM campaign is measured in terms of investment and its direct return. Tracking tools such as Google Analytics gives the advantage to do it for free. On the other hand, television marketing investment is measured worst using techniques such as increase in brand awareness or top of mind percentage. This created a different bar of measuring, making it more difficult for SEM as it can all be measured, compared to weaker infer techniques. The reality proved that nothing is black or white, and that disconnecting investment in television to the performance on SEM is misleading as investment on one channel brings benefits to the other.

The Billboard Effect, according to Anderson [24], in the hospitality industry, refers to the phenomena where potential guests see your hotel on an online travel agency (OTA), but then decide to visit — and ultimately book through — your website directly. A notorious brand in this aspect is Booking.com, a publicly traded company in NASDAQ, which managed to grow its brand awareness through investing solely in Google with not above the line activities. All of it came out of investment in quantitative, performance-based activities, and we will try to reproduce its effects in this experiment. Our thesis is that the billboard effect can also be reproduced using Google AdWords, when our brand is exposed to customers when searching for hotel terms, hence we will use the billboard effect to refer to a brand exposition on Google AdWords and not to its traditional definition.

One of the aspects to consider is attribution, looking at it from a different angle regarding what Berman refers to as a highly relevant metric that must be assumed as "a fully strategic choice by advertisers and publishers and not just as a measurement technique" [25]. The orientation towards strategic management, according to the author, needs to be considered in the future, so it deserves new perspectives that generate more information about the final conversion in the advertiser site.

Regarding the above, Du et al. [26] state: "Future research needs to address the question of whether the rate of immediate online response is positively correlated with the amount of online and offline response accrued over time and, ultimately, with incremental sales attributable to a single spot". This corroborates the interest in having specific information on the effects of advertising, such as SE traffic or PPC on the behavior of users until purchase decisions are made in their DT in the landing page. On the other hand, Li and Kannan [27] raise other thematic aspects closely related to attribution, the budget, search and keywords, as well as the billboard effect when they express the need to "estimate the carryover and spillover effects of prior touches at both visit and purchase stages is necessary to correctly measure the incremental contribution of multiple channels and overlapping campaigns and to assist decisions on optimizing marketing budgets". This confirms the concern to specify the value of each of the direct and indirect variables in the generation of the expected results during the planning of the advertising strategy; insisting on the urgency of giving

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advertisers and publishers sufficient evidence to make the most accurate decisions possible [28]. The main problem comes from the fact that Google Analytics, the main performance monitoring tool, does not understand the behavior of those who surf the web when they change devices; for example, using first a mobile and then a tablet to complete the purchase.

Kannan et al. [29] make other contributions in relation to the research requirements, when they express: "appropriate attribution strategies can allow attribution results be used in real-time for targeting purposes. As more and more marketing interventions get automated, developments in this area are needed to ensure that such marketing campaigns result in maximal ROI". With this, they make clear the growing interest in deepening research in these thematic fields, which aim towards obtaining first-hand data and information for immediate decision making.

A. Key Literature

The foundations of the documentary review for this research are based on the theme of positioning marketing (SEM) as a digital marketing tool in the Information, Communication and Knowledge (ICT) Society, related to the importance of advertising metric data classics.

ICTs are leading to an enormous development that, according to Evans [30], is opting for the IoT and granting cyber citizenship within the framework of Web 2.0. According to World Bank Group [19], its impact tripled and generated high digital dividends, promoted trade, made the use of capital more efficient and has been stimulating greater competition, to the point that institutions and companies channel efforts to access your potential clients through marketing strategies consistent with the reality of a market in permanent digital evolution.

Based on the above, online marketing is forced to continually reinvent itself to respond to the growing requirements presented by product and service providers to reach their prospects until they achieve conversion and even achieve loyalty. The SEO strategies and the management of paid links in SEs emerged in this context.

This scenario leads marketing managers to rely on online metrics such as CTR and cost per click (CPC), as well as calls to action (CTA), related to conversion rate and return on investment (ROI), but with higher objective specificity for return on advertising investment (ROAS), providers of sufficient evidence to make decisions regarding advertising budgets and strategies. However, there are opacities noted concerning some of the digital marketing tools and their classic metrics, given the inaccuracies about attribution in terms of final conversion, according to the approach of Li et al. [18], in the context of its progression through the funnel, by not considering the indirect effects of the use of other channels, in addition to the continuous interactions of a dynamic and contextual nature, raised by Kireyev et al. [32] as pending issues.

One of the aspects that must be constantly reviewed is that referring to attribution, approached from a different perspective and with respect to which Berman [33] refers to as a metric of enormous relevance that, even, has to be assumed as "a fully strategic choice by advertisers and publishers and not just as a measurement technique". The orientation towards strategic management, according to the author, needs to be considered in the future, so it merits new perspectives that generate more information on the final conversion in the advertiser's site.

B. Key Research Findings

Previous studies have aimed to describe the characteristics of the metrics and even the associations between variables, but no research has been proposed to seek the empirical establishment of the sustained effects of the variables discussed here.

Regarding the above, Danaher and Heerde [34] say that "the measurement of multimedia attribution is an area where there is much opportunity for marketing science principles to make an impact on practice...". This corroborates the interest in having in a concrete way information on the effects of advertising, such as the traffic of paid SEs or PPC on the behavior of the users until the purchase decisions are made in their DT in the landing page. On the other hand, Li and Kannan [27] raise other thematic aspects closely related to attribution, budget, search and keywords, and the billboard effect when they express the need to "… estimate the carryover and spillover effects of prior touches at both visit and purchase stages is necessary to correctly measure the incremental contribution of multiple channels and overlapping campaigns and to assist decisions on optimizing marketing budgets". This confirms the concern to specify the value of each of the direct and indirect variables in generating the expected results during the planning of the advertising strategy. It insists on the urgency of giving advertisers and publishers sufficient elements of judgment to make the best possible decisions.

Kannan et al. [29] make other contributions concerning research requirements, when they state: "... paid search campaigns are generally automated and run on a daily basis by algorithms that determine campaign specifics. In such a context, misattributions of credit for keywords can lead to a significant drop in campaign ROIs…". With this, they clarify the growing interest in deepening research in these thematic fields, which point towards obtaining first-hand data and information for immediate decision making.

Based on the above, some questions and proposals for future research arise that could lead to methodologies, models, and, in general, useful knowledge to improve digital marketing, establishing the SEM, brand awareness, and metrics as a reference.

Connected to the proposals that the antecedents leave for the discussion, the approaches of Kapoor et al. [35] are rescued who affirm that knowledge about the circumstances in which causal relationships are executed can guide the discussion regarding their link not only with traffic but with conversion, respecting the company's perspective on determining attribution and the purpose of your campaign. To this must be added the growing interest in brand awareness as relevant information for decision making in terms of investment and campaigns from the hand of strategic management supported by ICT.

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C. Main Hypotheses

As the first step of inferential verification, it has been considered to assume that the basis of the test is oriented to estimate the relationship between the study variables, for which the inferences that assume as probable a relationship between the positioning marketing strategy and the DT; the same about conversion, click-through rate and the number of sessions on the OTA website.

Now, taking into account the premise that the positioning marketing strategy (SEM) implies an exposure on the internet that favors the presence of the OTA in cyberspace, and that this affects the considerations of the cybernaut who explores the network, then it can be inferred that the number of sessions that are opened on the web pointing towards the agency's site, the DT and the conversion will be affected in some way. This circumstance is known as the billboard effect and serves as a framework for inferences under the hypothetical-deductive method applied in the methodological route described later.

A notable brand in this regard is Booking.com, a NASDAQ publicly traded company, which managed to increase its brand awareness by investing solely in Google with no above-the-line activities. It all came from investing in performance-based quantitative activities, and we will try to reproduce its effects in this experiment.

Another important aspect that must be considered in the context of the study is regarding user navigation and clicks related to the search. Jerath et al. [36] stated that "… click behavior on the search results page is governed by two components of the model: the overall propensity to click and the likelihood to search for information in the sponsored versus organic listings". This highlights the importance of accessing data referring to the route followed by the client from the beginning of the navigation until the conversion is completed.

Obtaining data on the path that a potential client follows or who has actually converted represents valuable information. In this way, marketing managers can take into account, for example, the fact that the client has reached their website after having appeared on the website of a third party that has advertised it. This is known as the billboard effect. An example of this approach is argued by Anderson [24] when he states that the theoretical basis for this phenomenon provides an explanation for understanding how the potential guest accesses information about the hotel through its listing on the OTA, but finally makes the reservation directly through the hotel's own channel or its subsidiaries. The same author argues that potential customers use the exposure of a product or service through a third party to carry out a first exploration, but they do not make the conversion in the consulted portal, but end up converting the company directly on the web. With this, the billboard effect becomes relevant, and on that basis, they are proposed as probable and plausible solutions to the research questions. Said premises and argumentative basis are raised in the following hypotheses:

H1. There are significant differences between the averages of sessions due to DT to the advertiser's website when comparing when the Positioning Marketing Strategy (SEM) ceases and when it is active.

H2. Significant differences are expected between the proportion of clicks on the advertiser's website when comparing when SEM ceases and when active.

H3. The significant differences between the conversion rate averages are established when comparing them when the Positioning Marketing Strategy (SEM) ceases and when it is active.

But in addition, inferences will be made that establish the association of the SEM with the metric indicators of brand awareness, both in quantitative terms (established in a hypothesis) and qualitative (as categories and semantic networks). How this will be done methodologically will be explained in the next section.

III. RESEARCH INTRODUCTION

The considerations made in this research have as a reference the undeniable boom of Information and Communication Technologies (ICT) today, being the advertising field one of the most influenced. Based on this, it is assumed that the positioning marketing strategy (SEM-PPC) promotes digital exposure throughout the network, which is an influence on the prospect who navigates on the internet. It is plausible to assume that a user's sessions on the agency's website, DT, and conversion could be influenced by entering that positive feedback loop.

The above, understood as the billboard effect, serves as a contextual theoretical argument that seeks in a plausible way, and with a high level of probability, to develop the research route in empirical terms. In this same sense, Kapoor et al. [35] state that causal relationships can guide the discussion regarding their link, not only with traffic, but with conversion, respecting the company's perspective, regarding the determination of the attribution and purpose of the campaign.

Based on the above, some questions arise that could lead to methodologies, models and useful knowledge for the purposes of digital marketing, establishing as reference the search traffic for payment in terms of the following: Is there a sustained causal relationship between positioning marketing strategies (SEM) and direct search traffic? The concern arises from the systemic approach to the budget, with the understanding that investment means targeting efficient resource management, with which another question arises related to the cessation of SEM exposure and its impact on DT: To what extent is DT sustained after PPC has ceased? In other words: will there be a difference between the average number of visits (traffic) obtained on the landing page of the advertiser originating directly vs. the paid one after having stopped the SEM strategy?

Answering the research questions, together with the discussion of the results, will constitute a valuable contribution to the lines of research in which this study is circumscribed, with the same tenor regarding the epistemic perspective and the theoretical-methodological body that will emerge from the heuristic intentions outlined here.

In terms of digital marketing, the perspective of this study is unprecedented in that it not only contemplates theoretical aspects, but also formulates an experimental design based on empirical data generated by the OTA website as the basis for

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statistical treatment and to contribute to a relevant analysis of the interactions between variables

The discussion generated from the analysis is undoubtedly important from an academic point of view, typical of empirical research. The importance lies in the fact that it provides them with sufficiently validated elements of judgment on the behavior of users on their portals, as well as on the effects of their digital marketing strategies on parameters such as DT and conversion. This helps to ensure returns on advertising investment by leveraging real-time technologies.

IV. RESEARCH APPROACH

A. Idea or Topic

PPC as a digital positioning marketing tool under the billboard effect approach, and its sustained causal link to advertiser website visits (DT) and subsequent conversion, represent a relevant research topic for the emerging knowledge production in advertising management contexts in the digital era.

B. Basic Problem Solved by This Study

Despite the development of ICT in the organizational and advertising field, from which this knowledge arises in association with digital marketing, there is no updated research that considers the attribution of paid search traffic (SEM, PPC) and its differentiation in regards to DT and conversion to the advertiser's site in that they take the long-term billboard effect for granted. These considerations have not been made to date, despite representing an important parameter to take into account for making tactical and strategic decisions associated with individual campaigns based on digital marketing. This approach arises as a result of consultations where it is shown that the tools derived from digital marketing are developed in parallel with the design and implementation of strategies aimed at heterogeneous, multilingual and omnipresent audiences. This thrust in the field of research aims to provide useful information to agencies and advertisers as provider organizations (small, medium and large), who believe in the field of corporate advertising to catapult brands of products and services in terms of driving to their websites (visits) to achieve conversion and even loyalty.

The interest in this topic is obvious judging by the previous studies consulted and cited as the basis for the argumentation that has been exposed. Online travel agencies have had at their disposal information generated through descriptive studies in very broad contexts, in which the need to undertake future research under empirical approaches based on causal relationship designs, in order to obtain specific data on the performance of their digital marketing strategies in metrics such as DT, number of sessions and conversion, is repeatedly raised. Despite this, it is surprising that there is little empirical research on the specific context regarding the strategy comparing SEM and paid search traffic in regard to DT and conversion rate. The reported investigations are still incipient in terms of the methodological perspective of the empiricist-correlational-causal approach and in terms of experimental designs, so it is

necessary to develop heuristic lines that consider evaluating the sustained causal relationships between the visits obtained (traffic) directly and the payment marketing strategy (SEM, PPC) as digital tools, to more accurately assess the billboard effect.

C. Justification of the Investigation

The purpose of this study is to evaluate the sustained causal relationships between positioning marketing (SEM) referring to PPC and DT, as digital marketing tools in terms of their causal link with the objectives of advertiser's conversion of products and services. It constitutes a relevant contribution by generating updated data in a substantial and contextualized way for the analysis of attribution models that allow us to better understand the characteristics of this new synergy between technology and marketing in the hands of the main entities involved (agencies, companies and consumers), since the main considerations for budgetary and investment decision making are extracted from them. With this, it is understood that the causal interaction between SEM and DT represents that source of consultation about the value given to digital tools as a traffic activator, towards real conversion, in accordance with the purposes of the campaign related to attracting prospects to landing pages.

In accordance with the above, it is inferred that this research will generate relevant contributions to evaluate the theoretical and empirical knowledge about these digital marketing strategies, causally related to conventional and unconventional metrics of particular advertising performance, to be enrolled in lines of research associated with different SEM models, in addition to characterizing the dynamics of these digital tools in cyber-ecosystems, for economic-financial management purposes in the framework of the campaigns managed by the agencies. From this heuristic, knowledge will be derived that will improve both the state of the art and the real and objective practice of these advertising resources and strategies.

From a methodological point of view, this exploration will provide a working route for the digital marketing research line, will point out virtual instruments and protocols for the collection of little exploited data so far, as well as the classic analysis procedures and the field network experimental, contributing to the ubiquitous and expeditious processing of the data generated in cybermarketing studies. However, this study goes further by using an empiricist approach with an experimental design in which questions are asked about causal (cause-effect) relationships between the study variables.

In this case, research questions are answered regarding the effects between the OTA 's digital marketing strategies (SEM-PPC) and the metrics related to conversion, number of sessions and DT on its website.

D. Viability of the Investigation

In the era of the IOT, connectivism, and e-citizenship, research on the topic of interest is made possible largely by the e-culture present in academia and business. It is especially made possible by the diversity of free or paid tools that are available, such as instruments for data collection, processing and exchange, to which the researcher has primary access in real

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time, making it clear that obtaining such data as a source of information is truthful and numerous, it makes this study feasible. In addition, there is capital and heuristic and cultural experience in the area of digital marketing to implement the work route that will be designed, in order to answer the research question: What is the effect of positioning marketing (SEM, PPC) in direct and sustained search visits (traffic) to the advertiser's site? Similarly answering the question, what is the effect on conversion?

E. Novelty of the Investigation

The knowledge that will emerge in the terms described is in tune with the most advanced techniques in the advertising industry. It is confirmed that this study will contribute to both the academy and the advertising industry, laying the foundation for future research, but also making marketing work more efficient. It will give further empirical evidence to explain the current state of knowledge in this area and the perspectives on the use of paid search traffic, its real attribution in terms of sustained effects towards DT and the consequent conversion on the advertiser's site, which will improve understanding of this topic and decision making. The contributions regarding the profitability of the campaigns are also highlighted; and in strictly academic terms, the contribution to research programs related to digital marketing is evidenced with a multiplicity of empirical and methodological information of considerable importance.

It has been aimed in previous studies to describe the characteristics of the metrics and even the associations between variables, but in the research we cited it has been proposed to seek empirical establishment of the sustained effects of the variables presented here (SEM, PPC) on indicators such as the DT and their respective conversions, being able to promote campaigns based on approaches that focus more on branding and improve the experience of prospects to ensure conversion by direct navigation.

According to what has been stated, this research is part of the proposal for a theoretical and empirical contribution conceived in the context of a heuristic line that, although it has predecessors in a broad environment, in particular requires the sum of greater efforts to address objective knowledge on digital marketing in empirical fields, which considers the dynamism of emerging and disruptive ecosystems in which agencies interact with their campaigns, potential clients, and the product/service. The importance of positioning marketing (SEM) and its effects on DT to the advertiser's site are assessed here.

F. Research Targets

General Objective

The general objective is to assess the effect of the SEM Strategy (SEM-PPC) on direct search traffic and conversion provided by the OTA in UK cities during August, September and October 2020.

Specific Targets

• Determining the effect of the SEM (SEM-PPC) strategy on DT when the strategy is switched by the online travel agent in UK cities during August, September and October 2020.

• Determining the effect of the SEM-PPC strategy on the conversion rate when the strategy is switched on and off in UK cities during August, September and October by the online travel agent.

• Comparing the effect of the SEM-PPC strategy on DT and the conversion rate when the strategy is switched on and off by the online travel agent in UK cities during August, September and October 2020.

G. Epistemological Approach/Paradigm or Perspective

This research is established with a realist ontological position regarding the nature of the object of study. But it also assumes that this reality of interest is known objectively, through the observation of quantifiable and measurable facts. Therefore, the epistemological approach assumed here is empiricism.

This study theoretically assumes that the facts of interest are observable, measurable and quantifiable, with results that can be repeated and verified. It is therefore an empiricist explanatory research from the point of view of its epistemological approach. Therefore, it can be said that the paradigm of this research is quantitative and explanatory.

H. Methodology and Design, Analysis Techniques and Statistics

The realist ontology, the empiricist epistemological approach and the quantitative paradigm assumed for this study lead to taking a route of the research process of verification that attends to the hypothetical-deductive method, with an experimental design, necessary to respond to the research question referring to the cause-effect relationship between the variables. In view of the above, the following is established:

- Objectivist/inductivist method.
- Quantitative methodology.
- Experimental design.
- Analysis techniques: parametric inferential statistics.
- Inferential Statistics: The inferential statistic for student "t" is to test for independent samples, by determining the effect of the use of SEM strategies (SEM-PPC), on and off, on direct search traffic to the advertiser's website and the conversion rate.

I. Variable Systems

Independent Variable

The independent variable is Positioning Marketing Strategy (SEM-PPC) which can be on or off.

Dependent Variables

- Number of sessions obtained by traffic or paid search.
- Number of sessions obtained by traffic or direct search.
- Conversion rate for paid search.
- Conversion rate for direct search.

J. Hypothesis System

As a first step of inferential testing, it has been considered to assume that the basis of the test is oriented towards dismissing the relationship between the study variables, until the data prove otherwise, so inferences are drawn that assume that a

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relationship between the positioning marketing strategy and DT is unlikely; the same with respect to conversion and the number of sessions on the company's website. This premise and argumentative basis were stated in the following terms:

Null Hypotheses
- Null hypothesis (Nh): There are no significant differences between session averages for DT to the advertiser's website, when comparing when the Positioning Marketing Strategy (SEM-PPC) ceases and when it is active ($\ddot{X}1 = \ddot{X}2$).
- Null hypothesis A (Nha): There are no significant differences between the average number of sessions per paid traffic to the advertiser's website, when comparing when the Positioning Marketing Strategy (SEM-PPC) ceases and when it is active ($\ddot{X}1 = \ddot{X}2$).
- Null hypothesis B (Nhb): There are no significant differences between the conversion rate averages by paid search, when comparing them when the Positioning Marketing Strategy (SEM-PPC) ceases and when it is active ($\ddot{X}1 = \ddot{X}2$).
- Null hypothesis C (Nhc): There are no significant differences between the conversion rate averages by direct search, when comparing them when the Positioning Marketing Strategy (SEM-PPC) ceases and when it is active ($\ddot{X}1 = \ddot{X}2$).

Alternative Hypotheses
- Alternative hypothesis (Ah): There are significant differences between session averages for DT to the advertiser's website, when comparing when the Positioning Marketing Strategy (SEM-PPC) ceases and when it is active ($\ddot{X}1 \neq \ddot{X}2$).

Now, taking into account the premise that the positioning marketing strategy (SEM-PPC) implies an internet exposure that favors the presence of the OTA in cyberspace, and that this has an impact on the considerations of the cybernaut exploring the net, then, it can be inferred that the number of sessions that are opened on the web pointing towards the agency's site, the DT and the conversion will be affected in some way. With this, the billboard effect becomes relevant and, on that basis, the following inferences are raised as probable and plausible solutions to the research question:
- Alternative hypothesis A (Aha): There are significant differences between the average number of sessions per paid traffic to the advertiser's website, when comparing when the Positioning Marketing Strategy (SEM-PPC) ceases and when it is active ($\ddot{X}1 \neq \ddot{X}2$).
- Alternative hypothesis B (Ahb): There are significant differences between the conversion rate averages by paid search, when comparing them when the Positioning Marketing Strategy (SEM-PPC) ceases and when it is active ($\ddot{X}1 \neq \ddot{X}2$).
- Alternative hypothesis C (Ahc): There are significant differences between the conversion rate averages by direct search, when comparing them when the Positioning Marketing Strategy (SEM-PPC) ceases and when it is

active ($\ddot{X}1 \neq \ddot{X}2$).

The Decision rule: We used to validate that the experiment was that if p was smaller than 0.05 we considered the hypothesis to be not rejected, whereas if it was bigger than 0.05 then it was rejected. Nh; The following should be taken into consideration: 0.05 = 5% significance or risk level.

K. Expected Results

The aim is to establish the effect of positioning marketing (SEM-PPC) on DT to the advertiser's site and the respective conversion of the prospect, contributing with empirical evidence for the management of Marketing 2.0, and providing tools in increasingly favorable profitability conditions for organizations, agencies and the public. From the results, the debate and the conclusions, a theoretical and empirical construction will emerge that will improve the organizational and budgetary management of digital marketing campaigns, as well as promote academic activity and research in the field of digital advertising. The aim is to establish the effect of the use of positioning marketing strategies (PPC, SEM) on direct search traffic to the advertiser's website and conversion.

In relation to conversion, it will be assessed on the basis of the sessions and income reported through the tool https://analytics.google.com/ which provides the data required for the statistical analysis process generated from the sample of cities defined for the field phase of the methodological phase.

V. RESULTS ANALYSIS

Once the data were obtained with the help of the Google Analytics tool from a real population, the sample of UK cities was selected, as these were the locations where the OTA was able to turn off its marketing strategy. This shutdown was carried out during the last week of August and part of September of 2020. After this period, the strategy for the sample under study was switched on again, from the last week of September to part of October, with 30 data for each condition of the strategy, ON-OFF. The data were processed by means of inferential statistics using SPSS Statistics software version 25.0.

TABLE I
CORRELATION VARIABLES, SESSIONS AND CONVERSION RATE

Condition of strategies ON-OFF		N	Average	Deviation	Average Error Deviation
Number of Sessions Paid Search	Strategy ON	30	1393.00	484.440	88.446
	Strategy OFF	30	269.37	68.200	12.452
Number of Sessions Direct Search	Strategy ON	30	80.87	24.829	4.533
	Strategy OFF	30	32.63	9.205	1.681
Conversion rate Paid Search	Strategy ON	30	2.1657	0.62839	0.11473
	Strategy OFF	30	1.5843	0.88276	0.16117
Conversion rate Direct Search	Strategy ON	30	1.3163	1.57948	0.28837
	Strategy OFF	30	1.3950	2.03577	0.37168

There are two tables of results and their respective interpretations. Table I explains the statistics of the variables, number of sessions and conversion rate for paid and direct search, according to the positioning marketing strategies (SEM-PPC) in on-off condition, provided by the OTA during the

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months of August, September and October 2020. Table II shows the results of the student "t" test for independent samples on the variables: number of paid search sessions and direct search; and the conversion rate for paid search and direct search when the positioning marketing strategy (SEM-PPC) is on and off.

As can be seen in Table I, the averages obtained for the variables number of paid search sessions, number of direct search sessions and paid search conversion rate are higher when the positioning marketing strategy (SEM-PPC) is activated or turned on than when the said marketing strategy is deactivated or turned off. In the case of the variable conversion rate for direct search, the averages obtained are similar in both cases (on-off).

TABLE II
PAID AND DIRECT SEARCH AND CONVERSION RATE

|		Levine's Test - Equality of Variances		Two-Sample t-Test for Equal Means						
		F	Sig.	t	df	Next (bilateral)	Mean difference	Standard error difference	95% confidence interval of the difference	
									Lower	Upper
Number of sessions. Paid traffic. ON/OFF	Equal variances	39.487	0.000	12.580	58	0.000	1123.633	89.318	944.843	1302.424
	Different variance			12.580	30.149	0.000	1123.633	89.318	941.259	1306.008
Revenue. Paid traffic. ON/OFF	Equal variances	19.062	0.000	9.977	58	0.000	48.233	4.835	38.556	57.911
	Different variance			9.977	36.823	0.000	48.233	4.835	38.436	58.031
Sessions. DT. ON/OFF	Equal variances	3.111	0.083	2.938	58	0.005	0.58133	0.19783	0.18533	0.97734
	Different variance			2.938	52.385	0.005	0.58133	0.19783	0.18442	0.97825
Revenue. DT ON/OFF	Equal variances	2.897	0.094	-0.167	58	0.868	-0.07867	0.47043	-1.02033	0.86300
	Different variance			-0.167	54.628	0.868	-0.07867	0.47043	-1.02157	0.86424
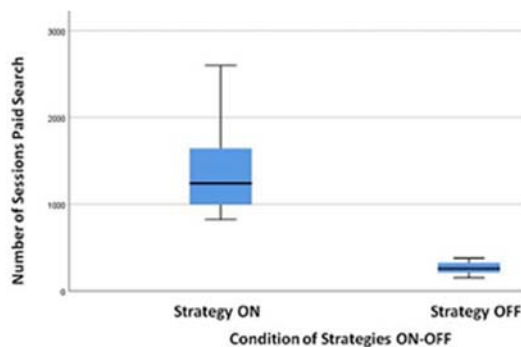
Fig. 1 Average number of sessions per search paid when the positioning marketing strategy (SEM-PPC) is on and off
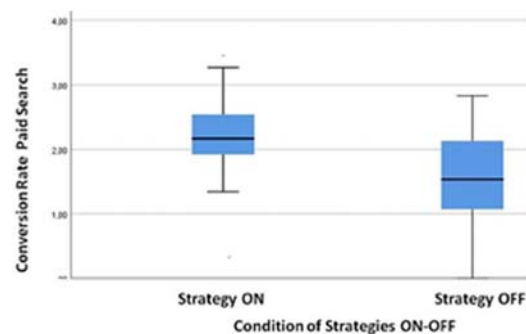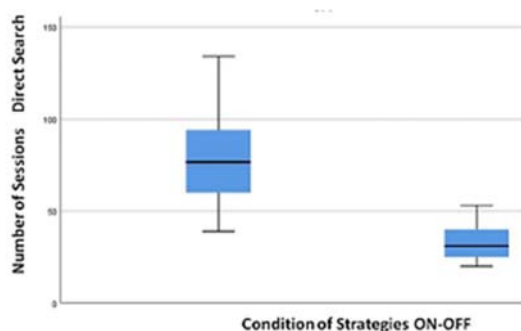

Fig. 2 Average number of sessions per direct search when the positioning marketing strategy (SEM-PPC) is on and off

The results obtained for the student "t" parametric test, shown in Table II, allow to infer the behavior of the study variables and to interpret them from the hypotheses raised.

Fig. 3 Average conversion rate per search paid when SEM strategy (SEM-PPC) is on and off

In the case of the variables number of sessions per paid search and direct search, as well as in the case of the conversion rate for paid search, a value of p = 0.000 was obtained being lower than 0.05 (< 0.05), which allows to decide that Ho, H0a and H0b are rejected. Consequently, it is concluded that there is sufficient evidence to establish that there are statistically significant differences between the average sessions for paid search traffic and direct search to the advertiser's website, when comparing when the positioning marketing strategy (SEM-PPC) ceases and when it is active. The same occurs with the conversion rate; in this case it only occurs when the positioning marketing strategy (SEM-PPC) is active. This result confirms the average values observed in the case of paid search sessions when the strategy is activated (ON), which is 1393.00 against a value of 269.37 when the strategy is deactivated (OFF), clearly observing how the value is greater when the positioning marketing strategy is active (SEM-PPC).

In the case of the direct search sessions when the strategy is activated (ON), the average value obtained is 80.87 against a value of 32.63 when the strategy is deactivated (OFF), clearly observing how the value is greater when the positioning

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marketing strategy is active (SEM-PPC). Based on this, we highlight the values obtained seen on Figs. 1 and 2, regarding the number of paid and direct sessions. We also show in Fig. 3 the conversion in paid traffic, and how it works against the DT in Fig. 4. There we infer that the positioning marketing strategy (SEM-PPC) is statistically significant when it is on. We also infer it is preferably in the average of sessions for traffic or paid search, since it is there where profitability is obtained. This means that this strategy is effective in digital marketing.
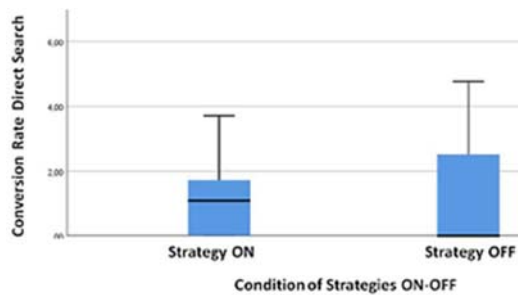

Fig. 4 Average direct search conversion rate when the positioning marketing strategy (SEM-PPC) is on (ON) and off (OFF)

In the case of the variable conversion rate by direct search, it can be seen in Table II that a value of $p = 0.868$ was obtained which is greater than 0.05 (> 0.05), which allows us to decide that for this case the H0c is not rejected. Consequently, it is concluded that there is sufficient evidence to establish that there are no statistically significant differences in the average conversion rate by direct search to the advertiser's website, when comparing the period when the positioning marketing strategy (SEM-PPC) ceases and when it is active.

When observing the average values indicated in Table I, in the case of the direct search conversion rate when the strategy is activated (ON), the report is 1.3163 against a value of 1.3950 when the strategy is deactivated (OFF), clearly observing that the values are similar for the positioning marketing strategy (SEM-PPC) both in the on and off condition. These appreciations can be seen in a more illustrative way in Fig. 4.

VI. CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH

In this article, based on the analysis of the data obtained, a discussion is generated for the derivation of conclusions in relation to the objectives set out in the research. The effect of the positioning marketing strategy (SEM) on DT is evaluated when said strategy is activated (ON) and deactivated (OFF). over the period of one quarter in the United Kingdom.

For the study, two empirical scenarios were considered, in the context of the UK, in which the sample referring to the number of direct and paid traffic sessions was measured with the SEM activated, while on the other hand it was done with this strategy disabled. Similarly, it was established in relation to the measurement of the conversion variable.

Based on the above, the evidence obtained reveals that there is a positive trend that suggests statistically significant differences between the average sessions for traffic-paid search and direct search to the advertiser's website, with paid search being favored, which is confirmed when comparing the averages obtained in both sessions. We conclude that paid search is favored by the SEM strategy, underlining the importance of such empirical evidence as valid elements of judgement for the comprehensive explanation of the processes addressed here in specific terms and in a broad sense.

When carefully observing the results obtained regarding the effect of the positioning marketing strategy (SEM) on the conversion rate (CR), a marked increase in the latter for paid search is evident, as long as the strategy is activated (ON). This is an indication of the effectiveness of SEM in terms of this ROI metric. In this sense, it is clear that a high percentage of users who use the advertiser's website convert their intention, expressed during internet browsing, into a specific action, thereby specifying the conversion, which is inferred to improve the relationship between profits obtained and the investment made.

Based on the data generated from the United Kingdom we validate that digital marketing strategies strengthen the link between users and supplying organizations, especially when the use of digital media increases progressively and, in this specific case, the brand takes advantage of this to focus on the positioning of its product and service to meet the objectives it has set itself.

As in any empirical analysis, some limitations emerged during the research that intervened forcefully in the development of the study. The most relevant of these was the restrictions imposed worldwide as a consequence of the COVID-19 pandemic, since the study protocol coincided with its development. The pandemic significantly disrupted the daily dynamics of tourism activity, given the restrictions imposed by governments to deal with the health situation. This was reflected in the interactions of potential users with the websites being monitored, slowing down the processes involved. However, we believe that this situation could serve as a reference for a future line of research to compare pre- and post-pandemic periods in order to understand similar situations.

An additional limitation was related to the fact that we only had access to data referring to the United Kingdom, due to the fact that operationally it was not possible to deactivate SEM in more than one country simultaneously because of the losses this would represent. As a result, the nature of the data limited our ability to obtain empirical findings on the variables in a European context and with respect to other continents. However, this should be seen as a benchmark for studies that open up the range of options to cover other countries in similar experimental circumstances in the future.

At the end of this study, beyond the results and conclusions reached here and that account for relevant contributions to the advertising industry and companies in general, it is imperative to reflect on the importance of delving into the future on the approach of similar investigations, considering samples in broader areas in terms of geographical location, with respect to the different countries and their cities in a global spectrum. It would be very useful to compare, for example, the conversion rate in relation to the type of search (paid or direct) and the on-off of a certain marketing strategy, but considering, by

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conglomerates, how much effect the users of countries have on different continents. The results revealed regarding the behavior of the subjects under these conditions would allow the advertiser to plan and invest in a safer and more reliable way in other latitudes.

The research also produced key findings to reach theoretical approaches related to positional marketing and the various metric parameters that explain user behavior in diverse contextual frameworks, beyond those addressed in the specific context of this study.

With the above it is clear that the theoretical reticulation is strengthened with each of the elements of judgment that emerge from this study and that bring us closer to making decisions appropriate to the demands of organizations in the context of the new post-pandemic world order.

Future research should point towards taking advantage of the findings obtained here, since they represent a step forward in terms of the explanatory knowledge of positioning marketing (SEM) on DT and regarding conversion, due to the which is required to expand the data in empirical terms to improve the basis of discussion and its repercussions on digital marketing.

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