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MDPI

Review

Understanding the Digital Marketing Environment with KPIs and Web Analytics

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Abstract: In the practice of Digital Marketing (DM), Web Analytics (WA) and Key Performance Indicators (KPIs) can and should play an important role in marketing strategy formulation. It is the aim of this article to survey the various DM metrics to determine and address the following question: What are the most relevant metrics and KPIs that companies need to understand and manage in order to increase the effectiveness of their DM strategies? Therefore, to achieve these objectives, a Systematic Literature Review has been carried out based on two main themes (i) Digital Marketing and (ii) Web Analytics. The search terms consulted in the databases have been (i) DM and (ii) WA obtaining a result total of $n = 378$ investigations. The databases that have been consulted for the extraction of data were Scopus, PubMed, PsyINFO, ScienceDirect and Web of Science. In this study, we define and identify the main KPIs in measuring why, how and for what purpose users interact with web pages and ads. The main contribution of the study is to lay out and clarify quantitative and qualitative KPIs and indicators for DM performance in order to achieve a consensus on the use and measurement of these indicators.

Keywords: internet; digital marketing; web analytics; KPI; measurement

1. Introduction

The growth of the Internet over the past decade is one of the most widely used examples to help explain globalization. In the information age and the increasingly networked economy, electronic Commerce (e-Commerce) is seen as one of the main instruments to foster business growth, labour movement and interpersonal relationships. DM is not just a transactional tool, but also generates change at the commercial and microeconomic level, which in turn demands changes in marketing practice and theory [1]. From a historical perspective, it is clear that all types of companies have had to adapt all their business practices to the availability/progress of new technology, new management techniques and an ever-changing communications landscape.

The rapid spread of computing power in all manner of devices has fostered the creation of the Digital Economy, or "a new socio-political and economic system characterised by an intelligent space consisting of information access tools and information processing and communication capabilities" [2]. While WA is widely used by popular websites to provide useful data for client companies, its rising popularity among users is not necessarily reflected in academic research. The research that is done also paints a rather discouraging picture showing that most WA use is ad-hoc, the analysis is not used strategically, and the benefits tend to be imprecise. Thus, in practice, many

marketing managers remain wary of performance measurement data and prefer to rely on intuition and experience for decision-making [3]. Given the evolving nature of WA, this is understandable. This study therefore suggests that the main benefits of WA for DM performance measurement will be determined by how companies exploit the system under specific contextual circumstances.

Understanding the effectiveness of DM strategies requires the ability to analyze and measure their impact [4]. Appropriate, accurate and timely DM metrics are critical for a company to assess whether they are achieving their objectives, or whether the selected strategy is appropriate to achieve organizational goals [5].

DM is the simultaneous integration of strategies on the web, through a specific process and methodology, looking for clear objectives using different tools, platforms and social media. The importance of DM for companies resides in changes in the ways that today's consumers gather and assess information and make purchasing decisions, in addition to the channels they use for this process [6].

According to [7], we can distinguish four types of control necessary to guarantee the outcome of a marketing plan for business: Control of the annual plan; Control of Profitability; Efficiency Control and Strategic Control. In this research, we cover the necessary actions for the Control of Profitability in DM, Strategic Control in the web measurement and analytical KPI's relevant to the consumer or Internet users.

While there are a great number of possible metrics and indicators, each one designed to measure a specific aspect of the DM plan [8], the choice of which metrics will enable insightful and useful analysis remains a tricky question for business managers. It is the aim of this article to survey the various DM metrics to determine and address the following question: What are the most relevant metrics and KPIs that companies need to understand and manage in order to increase the effectiveness of their DM strategies?

Identifying KPIs for DM and WA, Marketing professionals and Academics can efficiently measure key indicators related to the development of tactics and actions that are performed in the digital environment. By identifying the most important indicators, companies could improve conversion rates and consequently, increase their visibility on the Internet.

2. Methodology

2.1. Literature Review

The main objective of this research is to identify the main WA parameters for MD measurement on the Internet. Secondary objectives are twofold: (i) to identify how investigators are linking the MD with WA to find possible improvements; and (ii) to undertake a systematic literature review to help structure a roadmap for future research in this area.

Therefore, to achieve these objectives, a systematic literature review has been carried out based on two main themes (i) Digital Marketing and (ii) Web Analytics. The search terms consulted in the databases have been (i) digital marketing and (ii) web analytics obtaining a result total of 378 investigations. Research has also been categorized into the type of research; empirical, revision or conceptual, the research perspective and the main theme of the article (search carried out in January 2016 using 4 databases; PubMed, PsyINFO, ScienceDirect and Web of Science).

Although most articles are conceptual, many of them did not specifically develop the terms of web analytics intended by this research.

The methodology chosen, systematic literature review is based on the work developed by [9]. The structure of PICOS, defined as the review and extraction of data, has been followed. This means that the following variables have been considered: (i) Participants (any); (ii) Interventions (DM indicators); (iii) Comparators (any); (iv) Outcomes (WA indicators and KPIs); and (v) Study design (systematic reviews).

2.2. Data Extraction

The databases that have been consulted for the extraction of data were Scopus, PubMed, PsyINFO, ScienceDirect and Web of Science. The queries were filtered for articles in English only and no more filters were applied. When querying the mentioned databases, the Boolean operators of AND and OR were used to optimize the results of the databases corresponding to the topics of (i) Digital Marketing and (ii) Web Analytics. The search terms can be seen in Table 1.

Table 1. Search term used.

Digital Marketing and Web Analytics	Definition of Concepts Related to the Goals of the Research
	"objectives"
	"measurement"
	"traffic"
"Digital Marketing"	"KPI"
"onine marketing"	"strategies"
"marketing in Internet"	"indicators"
"marketing on Internet"	"concepts"
"Web Analytics" (AND)	"variables"
"web measurements"	"identifiers"
"Internet analytics"	"values"
"web page analytics"	"analytic indicators"
	"analytic variables"
	"techniques"
	"tactics"

The titles and abstracts of articles have been independently analyzed to determine if the articles are fit to continue with the systematic literature review process. All the articles present in this research have been analyzed individually. The criteria are based on the AMSTAR tool [10] (see Figure 1) to incorporate only high quality abstracts. Although the AMSTAR tool was initially designed to assess the quality of the articles from their abstracts, we have followed the indications of [11] as an eligibility gauge for this research.

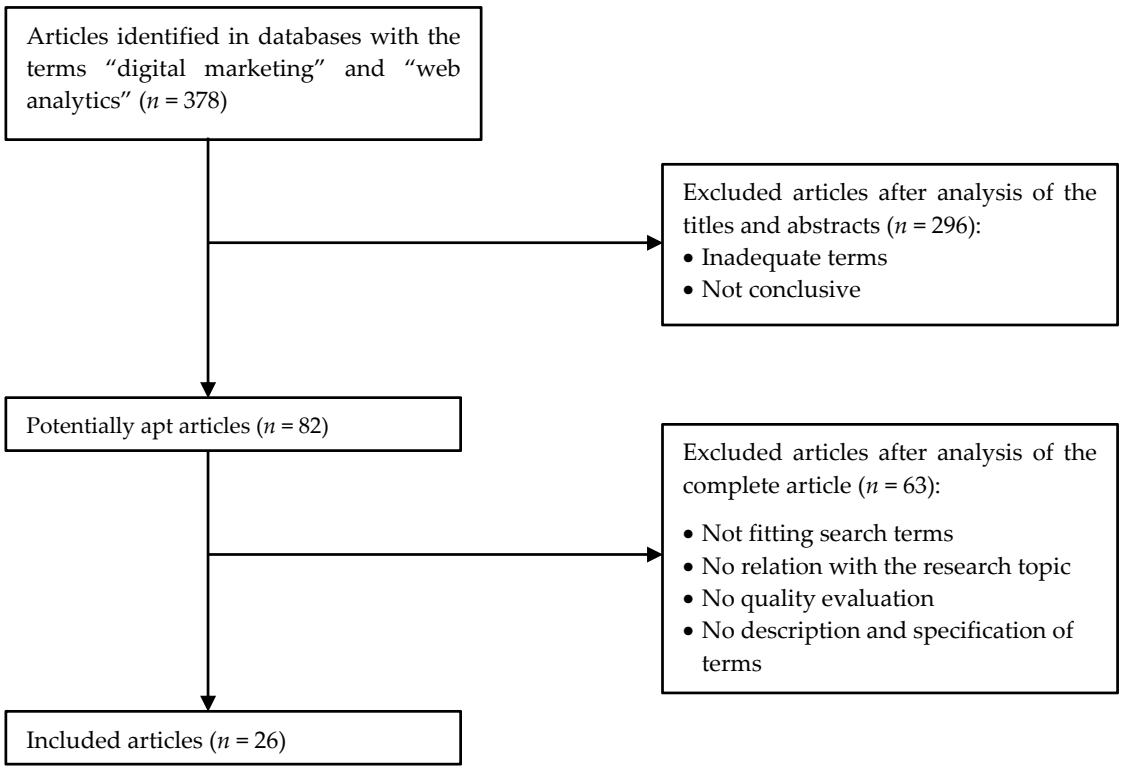

Figure 1. PRISMA 2009 Flow Diagram.

The objective is to achieve the highest possible amount of evidence in the results based on quality studies. Some of the variables used in AMSTAR to evaluate the quality of the systematic review were (i) the relationship of the research question to the criteria included in the study, (ii) the extraction of data from at least two independent researchers (iii) the quality of the literature review, (iii) identification and definition of concepts, and (iv) the quality of the references used throughout the study. As developed by [11] we have included the following criteria for the development of the methodology:

- Systematic review of abstracts (meta-analysis)
- Include structured research evaluations
- Published in journals and research journals
- Written in English
- Conclusions and research on topics directly related to digital marketing techniques and measurement with web analytics.

In the first phase, databases and search terms were identified, obtaining a total sample of n = 378. Secondly, after analyzing each article individually, a total of 296 articles were excluded from the initial sample due to inadequate topics. Consequently, in the third phase of the systematic review, a total of potentially appropriate articles of n = 82 were obtained. However, after applying the exclusionary processes after analysis: not fitting the search terms; no explicit relation to the research topic; Investigations without quality evaluation and lacking a description and specification of terms, the sample obtains a total of n = 26 articles.

3. Results

3.1. Process of Data Evaluation and Study Selection

Table 2 lists and describes the indicators and KPIs used.

Table 2. Literature review about DM KPI definitions used by relevant literature.

Theme	Relevant Literature	Key Concepts Used and Analyzed
Digital Marketing	[4,8]	WA; search engine optimization (SEO); return on investment (ROI), click-through rate (CTR).
	[12,13]	Search engine marketing (SEM); SEO; ROI; CTR; KPIs; traffic; unique users; lead; conversion rate and sources.
	[14–17]	Search engines; clicks; page views; interaction; users; leads; KPIs; SEM; SEO; Pay-per-click (PPC); conversion and conversion rates.
	[3,18–20]	WA; SEM; SEO; CTR; PPC; traffic, conversion; conversion rate and type of users.
	[1,2]	WA; SEO; ROI; CTR and traffic.
	[6]	SEM; SEO; CTR; PPC; new visitors, keywords and conversion rates.
	[21,22]	SEO; PPC; keywords; user friendly, user type
Web Analytics	[12,23]	DM; KPIs; traffic; unique visitors; pages views; conversion rate; goals; cost per lead (CPL); leads and surveys.
	[24]	Search engines; type of traffic; keywords; time on site; CTR; ROI and type of users.
	[25]	Search engines; type of traffic; traffic sources; direct traffic and user friendly.
	[26,27]	SEO; PPC; users; conversion; search traffic and ROI.
	[8,28,29]	DM; ROI; traffic; unique users; lead; conversion; A/B testing; conversion rate; goals conversion rate; new visitors, returning visitors.

3.2. Analysis of Scientometrics

This section presents the findings of our scientometric analysis on the identified scientific Journals contributions concerning DM and WA based on the total of findings, Quartile, and Category (see Table 3).

Table 3. Analysis of Scientometrics.

Journal	Total of Findings	Quartile	Category
Industrial Marketing Management	4	Q2	Business
Journal of Interactive Marketing	4	Q1	Business
International journal of research in Marketing	3	Q1	Business
Journal of Business Research	2	Q1	Business
International journal of Information Management	2	Q1	Information Science and Library Science
The Journal of Academic Librarianship	2	Q2	Information Science and Library Science
Journal of Service Research	1	Q1	Business
Managing Service Quality	1	Q1	Business
Engineering Applications of Artificial Intelligence	1	Q1	Computer Science, Artificial Intelligence
Computer Standards and Interfaces	1	Q2	Computer science, software engineering
International Business Review	1	Q2	Business
European Management Journal	1	Q2	Business
Journal of Services Marketing	1	Q3	Business
Public relation review	1	Q3	Business
Mobile information systems	1	Q4	Computer Science, Information Systems

As Table 3 shows, the research presented over the last years is categorized into two main research themes: Business, Computer Science and Information Systems.

MD has a significant business perspective since it is used as a tool for promotion and sale on the Internet, but from the Computer Science perspective, a high and technical value is provided in order to implement and develop these techniques as well as from the category of Information Science.

The research theme in DM and WA is a mix of these three research sciences. The total number of investigations that have been selected after passing the quality filters developed in the systematic review of literature can be appreciated in Table 3. In addition, it also shows the quality of the Journal of Research when presenting the classification by Quartiles.

The Journals of Industrial Marketing Management (Business), Interactive Marketing (Business), International Journal of research in Marketing (Business), Business Research (Business) International Journal of Information Management (Information Science and Library Science) and The Journal of Academic Librarianship (Information Science and Library Science) are key to understand this research topic.

3.3. Metrics for Assessing DM Efforts

Marketing plans include budgetary allocations for communication campaigns, advertising and other actions intended to publicize the brand, the products and services offered, and to reach current and potential new customers, leading to the ultimate consummation of the marketing process—A purchase. While the calculation of sales effectiveness for "traditional" marketing tools (e.g., TV advertising) has long been practiced, for the new, evolving digital marketing domain, this remains a work in progress. Two of the areas most in need of improvement are the measurement of DM efforts and DM results [6,30].

Because these metrics and analytical techniques are evolving, it is seldom easy to calculate the ROI [31] of a campaign in DM. Depending on campaign objectives and complexity, it may be very challenging to measure accurately. Even so, as a general managerial rule, an estimation of the results should be attempted. This means that companies need to work with all available information, going beyond the metrics provided by an agency or a digital medium [32].

Companies must analyze whether the money spent on a campaign generates business, whether it is a superfluous expense, or if it really is an investment that generates a return. In the short, medium or long-term, companies should devote resources in order to be able to calculate return on investment

[33]. In Table 4, we show one of the most common, and conceptually simple methods found in the literature for calculating the profitability of DM actions.

Table 4. Measures to calculate the ROI in DM.

ROI (Return on Investment)	CTR (Click-Through Rate)
A performance measure used to evaluate the efficiency of an investment or to compare the efficiency of a number of different investments. Calculated by comparing the spending on DM to the sales increases. The return on investment formula:	A metric that measures the number of clicks advertisers receive on their ads per number of impressions. It can also feed into a calculation of paid per click (PPC) or cost per Click (CPC). The click-through rate formula:
$ROI = \frac{\text{Gain from Investment - Cost of Investment}}{\text{Cost of Investment}}$	$CTR = \frac{\text{Number of Clicks}}{\text{Impressions}}$

3.4. DM Techniques

According to the [34]: "WA is the practice of the measurement, collection, analysis and reporting of Internet data in order to understand how a site is used by an audience and how to optimize it". The focus of WA is to understand the users of a site, their behaviour and activity [35].

If WA is to be meaningful, the data collection process must be carefully designed to deliver consistent and reliable data. Analysts working in WA should be WA are of how systems work and how they generate data. They should be able to audit its implementation and operation. The first step in the analysis is to be sure of the veracity of information. It is at this point that the technical tools must perform their actions correctly [36].

As is well-known, there are different techniques of DM such as search marketing (SEO or SEM), social media marketing, affiliate marketing or content marketing. However, to establish the main KPIs and metrics for companies we will focus on the analysis of the techniques of SEO and SEM. Search marketing shares, the main KPIs with other DM techniques because search engines are the main channel of contact between the user and Internet companies [37].

The difference between visibility with search engines compared to other models in traditional Internet advertising is that the user voluntarily seeks a service, product or information [38]. The accepted thinking in SEO and SEM is that to attract user traffic, it is essential that a website is among the first two or three positions on the first page of the search engine results page (SERPs), as derived through keyword ranking.

At this point we refer to the use of SEO as a technique or process for improving the visibility of a page to search engines (to move up into the top results) in the rankings. From there, the results can be assessed and analysed to calculate *conversion rates* (conversion here means moving from being seen to being acted upon, as in clicking). Being present on the Internet at the right time with a relevant search term can become a business opportunity [27,38].

The SEM proposition, however, is that it can make DM work better by promoting websites and raising their visibility in SEPRs. Techniques such as SEO and SEM have led to consolidated contracting models for advertising campaigns that can be applied to both display ads and text ads (see Table 2). This is a positive development because firms need clear media buying models in order to achieve the aims of their campaigns [38].

DM use of WA provides indicators of the effectiveness of each individual Internet Marketing technique employed. In turn, these indicators are related to the different pricing models in digital advertising, and therefore feed into the payment models used in DM strategies. It is the monetization of SEO and SEM combined with WA that should enable marketers to calculate the return on investment of their marketing efforts and to determine the basis for measuring the profitability and effectiveness of DM campaigns [31,39,40].

However, as seen in the literature review, there is little consensus in the DM ecosystem about which particular metrics are most useful—for example, clicks, impressions, or number of page views which are based on user behaviour on a website [41].

In order to reliably use these metrics, we must first examine the different contracting models used in the calculation of digital advertising rates. The literature review shows that the metrics analyzed in each type of research are determined by the type of contracting models in which companies have invested. In Table 5 we can see the main contracting models used in the researches analyzed.

Table 5. Type of advertising contracting model.

Type of Advertising Contracting Model	Description
CPI (Cost per impression) or CPM (Cost per thousand impressions)	One of the most common ways of buying digital media.
PPC (Pay Per Click) and CPC (Pay Per Click)	Here the advertiser pays when a click is made on an ad.
CPL (Cost per Lead)	The advertiser pays when a lead form is completed and submitted.
CPA (Cost per Action)	Here the advertiser pays only if a form or lead is made.

3.5. Quantitative and Qualitative Analytical Indicators

WA may be quantitative or qualitative and each type can be used to understand the behaviour of the target audience, analyze trends, check the performance of the actions taken and help in making strategic decisions. The Internet has a huge number of possible measures, so often the hardest part is not getting the information, but being able to capture the real meaning and being able to interpret it.

Today, there are many WA tools. For example, small data tags—*cookies*—can be installed in a user's browser when he enters a website. In addition, cookies can be used to find other information files with server logs, tags or navigation bars. The choice of one or other will depend on the needs of measurement, the focus of the study, accuracy of the data and cost. These data can be used to get clear objectives, set measurement parameters, segment the audience and configure and implement the WA tool. There are several alternatives but Google Analytics is the most used due to its power and free cost [29,42].

3.5.1. Key Quantitative Analytical Indicators

These are some important quantitative analytical indicators based on more measurable data. According to Kaushik [8], a leading specialist in the field of global WA, and Digital Marketing Evangelist at Google, there are 3 basic types of results we expect from quantitative data analysis: Increased revenue (conversion), reduced costs (conversion rate) and increased customer satisfaction and customer loyalty (user), or loosely, customer engagement. These three objectives, especially the first two, are aimed at e-commerce [1]. When considering content strategy, the focus is on informing the user or potential customer to attract attention and interest.

After reviewing the relevant literature, we highlight the following quantitative indicators in order to clarify those most commonly used in DM in Table 6. The table is not meant to be wholly inclusive, rather it includes only those measures in most common usage:

Table 6. Quantitative Indicators in DM.

Quantitative Indicators	Description
Impressions	An instance of an organic search-engine listing or sponsored ad being served on a particular Web page or an image being viewed in display advertising.
Traffic	Number of visitors who come to a website.
Unique users	Number of different individuals who visit a site within a specific time period.
Lead	When a visitor registers, signs up for, or downloads something on an advertiser's site. A lead might also comprise a visitor filling out a form on an advertiser's site.
Conversion	What defines a conversion depends on the marketing objective. It could be a sent form, a click on an ad or a purchase. It is an objective or goal.

3.5.2. Key Qualitative Analytical Indicators

There are several ways to measure user behaviour and optimize service. One is to use qualitative analytics data that identifies reasons related to why the user has performed an action on a web page. These metrics are feedback that links to quantitative analytics indicators [38].

WA are not user data, they are information provided by the actions performed by users. We can divide the qualitative information into two groups, depending on how we get it: Direct (i), asking users in a direct way on a number of issues: surveys, discussion groups or focus and interviews with users, and Hint (ii): Do not directly ask the user, but analyze the behaviour and response to timely questions A/B testing, usability studies or heuristic analysis experts. The great challenge for all firms is in analyzing the information effectively to turn it into knowledge to WA better conclusions about user behaviour on a website [31].

In much of the relevant literature, the authors discuss user behaviour on the web and how it can be measured with metrics such as time on site, number of page views or user experience when interacting with web design. Some of these authors talk about phases and actions taken by companies to improve user behaviour on a site, but do not define the specific qualitative indicator [31,43].

To define qualitative indicators that collect these user actions, a number of alternatives have been used in the literature as laid out in Table 7.

Table 7. Qualitative Indicators in DM.

Qualitative Indicator	Description
A/B Testing	A/B testing refers to two different versions of a page or a page element such as a heading, image or button. A/B testing is aimed at increasing page or site effectiveness against key performance indicators including click through rates, conversion rates and revenue per visit.
Call to Action (CTA)	A statement or instruction, typically promoted in print, web, TV, radio, on-portal, or other forms of media (often embedded in advertising), that explains to a mobile subscriber how to respond to an opt-in for a particular promotion or mobile initiative, which is typically followed by a Notice.
User experience (UX)	Encompasses all aspects of the end-user's interaction with the company, its services, and its products through different devices. This term is also used with Information Architecture (IA), which is the structural design of shared information on a site based on user behaviour.
Rating systems	A system of classifying according to quality or merit or amount which could divide and organize the type of users.
Surveys and forms	Tools that allows users to send information to a website. It is usually used to set the number of conversions or conversion goals in a web site or DM campaign.
The Flow of Users	Graphical representation of the paths users took through the site, from the source, through the various pages, and where along their paths they exited the site. The Users Flow report lets you compare volumes of traffic from different sources, examine traffic patterns through your site, and troubleshoot the effectiveness of your site. It is used to understand the user behaviour on a site.

In addition, it is important to highlight that qualitative indicators related to social media are important. Social interactions between companies and users should be analyzed. Social media consumer interactions are important to any company in the Digital Marketing environment. These social factors are defined and identified by many authors who focus their research on evaluating social indicators and social commerce interactions to improve their DM strategies [14,20,21,36,43].

3.5.3. Key Performance Indicators (KPIs) in DM

Each company can identify the KPIs that it judges are most relevant to its business. In many cases, this may be a process of trial and error [44]. The consensus in the literature is that to be useful, KPIs must have the following characteristics: They must be Measurable (i), by definition a KPI should be measurable in the DM environment. For example, it is difficult to measure how useful a web page is for a user, but the time spent on the page can be measured. If this is long, we can assume that the content of the page is useful; Achievable (ii), the objectives considered when setting KPIs must be credible. Sometimes too much information can be a problem and there are dozens of KPIs to choose

from, but only a few provide information of interest. Finally, a KPI must be Available at least for a time (iii), KPIs must meet deadlines, and be available for reasonable periods of time [1,45,46].

In order to define a set of indicators for companies, after researching the overview and analysis of the relevant articles on this topic, we define the following basic KPIs that companies should follow and analyse with WA in their DM strategies as laid out in Table 8.

Table 8. Key Performance Indicators (KPIs) in DM.

KPI in DM	Description
Conversion Rate	The average number of conversions per click in SERP results or in Ads click (depends on the marketing objective), shown as a percentage. Conversion rates are calculated by simply taking the number of conversions and dividing that by the number of total ad clicks/actions that can be tracked to a conversion during the same time period.
Goals Conversion Rate	A *goal* represents a completed activity (also called a conversion). Examples of goals include making a purchase -e-commerce-, completing a game level (App), or submitting a contact information form (Lead generation site).
Type of Users	*New Visitors*. They are users who visit your site for the first time. *Returning Visitors*. They are users who visit your site for the second or more times. It is important because it shows the interest of your business and website for the target audience.
Type of Sources	*Source*. Every referral to a web site has an origin, or source. *Medium*. Every referral to a website also has a medium, such as, according to Google Analytics: "organic" (unpaid search), CPC, referral, email and "none", direct traffic has a medium of none. *Campaign*. Is the name of the referring AdWords campaign or a custom campaign that has been created.
Keywords/Traffic of Non branded Keywords	*Keywords* in DM, are the key words and phrases in a web content that make it possible for people to find a site via search engines. A *non-branded keyword* is a one that does not contain the target website's brand name or some variation. Ranking for non-branded keywords is valuable because it allows a website to obtain new visitors who are not already familiar with the brand.
Keyword Ranking	Rank is an estimate of your website's position for a particular search term in some search engines' results pages. The lower the rank is, the easier your website will be found in search results for that keyword.

4. Conclusions

This paper provides a comprehensive and systemic overview of the current status of the theoretical and empirical literature on DM and WA.

The development of the Internet and electronic commerce involves a change in marketing thinking and practice due to the fact that traditional marketing has had to develop new techniques for the Internet. This has resulted in the existence of a gap between the development of new techniques of DM and measurement processes that have to be performed for the correct measurement of results.

Due to the increased use of DM in the last decade and the investment made by companies in the last few years we have carried out an investigation to determine the key indicators to which companies should pay attention in order to measure their digital marketing actions. Researches present concerns expressed by companies about the lack of knowledge of what metrics they should use to justify their marketing investments [15]. This remains true despite the many articles published on DM measurement topics in the last few years. Researchers use a wide variety of different metrics and indicators to measure the efficiency and effectiveness of DM techniques and calculate profitability (ROI), however, our study shows that little consensus has been formed about the use of these indicators, or on the definition of the key factors for measuring the DM performance.

In summary, this research presents the main analytical indicators to measure the performance of DM. It highlights the most commonly used indicators that might therefore offer potential for increasing standardisation and comparability of results across studies [47,48,49].

Second, the indicators defined in this study are based on the use of relevant analytical indicators in the field of MD and WA. The goal was to define correctly these indicators to group the main KPIs for the measurement of DM return of investment.

The contribution of the theoretical framework demonstrates how companies should understand the different contracting models in DM to establish relevant indicators and how they should understand the main models of performance measurement in DM. In the study, we can see what the main contracting models studied in the main works of DM are. This means that the understanding of the different models of recruitment advertising on the Internet is important to determine the indicators to be measured and calculate the ROI.

Third, the literature shows the importance of using two types of WA as a basis of assessment in DM; (i) quantitative analytical indicators, which allow work on real data, quantifying different goals or conversions and which are the main indicators studied by the authors, and (ii) qualitative analytical indicators that are used in DM to show how the user understands a website, helping to define KPIs to understand the on-line buying process and user behaviour. This study makes the additional contribution of clarifying the main qualitative indicators from the literature.

Following the indicators identified in this research strategies and actions in DM can be improved. Marketers and Academics can check the efficiency of their activities by consulting the ROI or CTR in their actions in DM. To measure and optimize each process carried out by users on the website, Marketers and Academics can consult the indicated qualitative indicators. In addition, it will allow them to optimize and structure their strategies. On the other hand, they can use this research to improve the online shopping process and the User Experience (UX). This will increase the conversion rates. In order to measure the online strategies objetives, this research suggests that different KPIs should be determined to assess the impact of each action. Each Marketer or Academic, could use these indicators to improve their strategies and account the goals achieved in DM.

4.1. Implications for Academics

The significance of our research and results for academics has its value in the study of DM as a theoretical concept. The growing use of DM is tied to the development of the Internet in the last decade. For a topic to be relevant, a number of studies and investigations should be carried out over time. The early development of the Internet and new technologies has meant that traditional marketing has evolved rapidly and has adapted to the new demands of the Internet, and continues to do so. Therefore, academic work needs to be ongoing. According to [7] DM refers to "marketing functions performed electronically". Therefore, academics must understand and learn the new marketing tools and their uses. As traditional marketing evolves, academics must obtain and develop new skills and learn the new vocabulary necessary to understand this ecosystem.

Just as there has been a gap in the Marketer's skill-set in the professional sector [19], this research shows there has also been a gap in the understanding amongst academics in the use of these technologies in the professional sector. In quickly evolving fields this may be quite natural, but it also highlights the need for academics to pursue additional research to refine the definition, measurement and assessment tools for the DM environment. This study contributes to that effort by cataloguing the most prominent metrics and their uses.

Looking ahead it is clear that there is enormous potential for researchers to make major contributions to both business and technical research themes in the subject of Digital Marketing. The continued growth in the use of social media and social networking is likely to receive much more attention from academic researchers, which will be reflected in a growing number of publications. The topics of online business models and advertising are key research areas in strategy and marketing. Given the fact that most of the new developments and innovations in DM are created and implemented by business organizations, it is critical that academic researchers continue to balance

academic theory with industry practice, and actively seek to produce research that is both rigorous and relevant to both academics and managers.

4.2. Implications for Marketers

Marketers recognise the importance of DM and drive its ongoing development and implementation. However, following the investigation of [19] we see that there is a gap in skills development in terms of monitoring and assessing marketing actions in DM. This gap will potentially weaken marketers strategically because it means they will have an incomplete or even erroneous understanding of the effectiveness of their interventions. In order to take full advantage of the evolving digital ecosystem marketers need to be properly trained to understand and use the key performance indicators that are particular to this environment. Further, they must also seek to integrate those measures with other more traditional ones for marketing effectiveness.

In order to assist the normalization and standardization of DM indicators, our research lays out the main indicators used in the DM ecosystem. This study presents a straightforward, easy to follow discussion of KPIs for WA, and the different techniques that attract DM website traffic. Finally, we lay out a logical progression that marketers can follow, starting with the types of WA contracts on offer, to, the relevant performance indicators. These can then also lead to calculations of the ROI of their investments. Finally, the findings of our scientometric analysis regarding the identified scientific Journals contributions highlight the most relevant scientific Journals published on this topic.

The limitations of the study are those related to the methodology used and the number and databases of papers analyzed. The results of the investigation could be followed as indicators but not generalization of the sector due to the limitation of the number of investigations analyzed.

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