

A Bibliometric Study of Digital Marketing Strategy

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Abstract. The development of information technologies and selling through digital marketing should represent a turning point in marketing techniques. Currently the Covid19 pandemic is affecting almost all areas of life, especially in business and economy. The objectives of this research are to review publications related to marketing strategies in the field of digital marketing, identify industry sectors that use digital marketing, identify frequently cited articles and analyze the evolution of research trends before the Covid19 pandemic. This study uses a bibliometric analysis method with a Scopus information of 222 articles connected to promoting ways within the field of digital marketing. The results show that the number of publications increased in the descriptive analysis. The marketing strategies Internet marketing, social media marketing, digital marketing, eWOM are widely used in this research. Hence the countries that have contributed the most to this research, namely: the United Kingdom, the United States and Australia. The widely used methodology is quantitative, four industry sectors use digital marketing in this study, Citation results are divided into 7 groups with different discussion topics, three articles are cited more frequently in other studies, Citation results have completed what there was 5 related and distinct clusters discussion topics..Research Implications adds insights into marketing strategy research trends in digital marketing for scholars and professionals to implement digital marketing during the current pandemic.

Keywords: Marketing Strategy · Digital Marketing/ Internet Marketing · Covid-19 · Citation Analysis · Co-Citation Analysis

1 Introduction

Marketing strategy is something that is very important and affects a business or a business. Would not surprise you if every company does differently marketing strategies to increase its sales volume. With the increase in sales volume, the company will also get the desired profit. The better the marketing strategy of the company is applied, the bigger the opportunities for the company to expand market share.

The marketing strategy using digital marketing is predicted to be a point of change in the technique of marketing a product from conventional marketing to using digital marketing, not only on the marketing element but will have an impact on all business activities as a whole, whether it is a business that has international and national scale as well as business. Individuals on a small scale.

According to (Chaffey & Mayer, 2010) defines digital marketing as marketing that has a broader scope because it refers to digital media such as the web, e-mail and wireless media, but also includes processing digital customer data, and also how the internet can be used in conjunction with other media. Traditional way of acquiring and providing services to customers. Digital marketing has the goal of increasing sales revenue and digital marketing has the benefit of generating high sales.

From the use of digital marketing, the benefits in terms of spending costs will be reduced a lot by themselves. This is because digital marketing does not require large fees or costs, in contrast to doing conventional marketing which requires a very large marketing budget for trading activities or promotional activities for certain products.

Currently, the Covid19 pandemic is affecting almost. All sectors of life. In fact, the impact of this pandemic is being felt in the business and economic world. In a fairly short time, marketing patterns have changed, especially when social distancing and Large-Scale Social Restrictions (PSBB) are implemented. Regarding the world of business and the economy, it is necessary to have parties who work together with companies that can seek and find the right solutions to determine marketing strategies in the digital marketing field during the current Covid-19 pandemic.

In this paper, we will examine how the development of marketing strategy science is applied in the field of digital marketing using a bibliometric analysis approach. In this study, software, namely VosViewer, was used to perform bibliometric analysis by assessing the relationship and network between existing articles.

2 Literature Review

The marketing strategy is the marketing logic that the company will use to create value for customers and build profitable relationships customers in the meantime. (Kotler & Armstrong, 2005) defines marketing strategy as a fundamental tool designed to achieve business objectives by developing a sustainable competitive advantage through market entry and marketing programs used to serve the target market.

Businesses may use two or more marketing programs at the same time because every kind of program, like advertising, sales promotion, personal sales, client service, or product development, includes a totally different result on demand. Therefore, a mechanism is required to coordinate selling programs in order that they're synergistically aligned and integrated. This mechanism is called marketing strategy. In general, the best marketing opportunities come from primary demand development efforts, while the best growth opportunities come from demand development efforts. (Kotler & Armstrong, 2005).

Digital marketing is described simply as a marketing goal through the application of digital technology (Chaffey D., 2009). Another term for digital marketing, namely internet marketing is the use of technology to assist marketing activities in order to increase customer knowledge by adjusting to their needs (Chaffey D., 2013).

According to (Struggles and Heidrick, 2009), the development of digital marketing via the internet, mobile phones and gaming devices offers a new approach to advertising

that is unpromoted and highly influential. The role of digital marketing strategy can be important in keeping up with developments in digital technology and developing plans to attract and engage consumers towards a mix of electronic and traditional communications. (Chaffey, Ellis, Mayer, & Johnston, 2009). According to (Chaffey D., 2009) retention can be achieved by increasing knowledge about consumers such as profiles, behavior, values, and loyalty levels. Then bring together targeted communication and online services according to the needs of each individual.

Digital technology has changed the way people speak, communicate, act and make decisions. Every day we are always in contact with different types of technologies ranging from internet to mobile phones. It shows that the digital world has become our world. New Wave is making it increasingly challenging for marketers to think about marketing with a low-budget, high-impact strategy. According to (Hertzel D. H., 2003) bibliometric analysis is one of the oldest branches of Library Science. As a scientific study, this branch developed because of the chest of a handful of scientists in the 20th century who were interested in the dynamics of science as reflected in the production of scientific literature. Bibliometric methods are used to provide quantitative analysis results from written publications. This type of analysis is based on the identification of a collection of literature, namely publications in a broad sense and in a specific subject area (Ellegaard & Wallin, 2015).

This method has benefited greatly and advanced from computerized data processing and in recent years has seen a significant increase in the number of publications. This is partly due to the computerized methods but also to the fact that bibliometric methods must input a certain volume of data to be statistically reliable.

3 Methodology

The research stages can be divided into five main stages, starting from the preparation stage, data collection stage, descriptive analysis stage, bibliometric analysis and finally drawing conclusions.

Preparation Phase

At the preparation stage, it is necessary to determine the keywords that will be used to search the data first. So that the final writing of the keywords used in the Scopus database search column is the search content ("Marketing Strategy" OR "Marketing Plan") AND ("Digital Marketing" OR "Internet Marketing").

After finding the keywords to be used, the next step is to formulate a problem as the basis or reason for the research. Not only that, it takes several literature reviews that are used to strengthen and provide empirical evidence on research. From the problem formulation framework and literature review that has been made, researchers can determine the main research objectives that are clearer and become the right initial stage.

Data Collection and Filtering Stage

At this stage, the data collection used in this study was Scopus. Next, determine the soft-ware that will be used to perform bibliometric analysis in this study, using the VosViewer application. Then, data collection can be carried out directly according to the keywords that have been determined in the previous stage. After searching with the keywords that

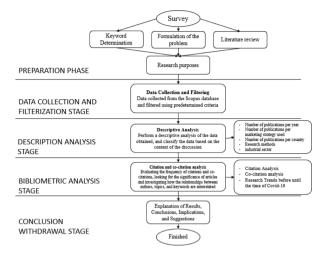


Fig. 1. Research Stages

have been mentioned, data will be filtered by giving limitations in the search for articles on certain criteria that will be applied, such as year limits, subject area selection, document type and language.

The results of the publication of articles that have been obtained are filtered again by means of manual reviews of articles that have been selected through the system at the previous data limitation stage, namely by reviewing the titles, abstracts, and conclusions discussed from the articles with the aim of aligning them with the research to be carried out. The review critically summarizes and classifies some information, either basic information or additional information for descriptive analysis material that will be carried out at the next analysis stage.

Descriptive Analysis Stage

At this stage, a descriptive analysis will be carried out. Descriptive analysis will be presented with statistical data in the form of diagrams or tables that will be displayed in the discussion chapter of the research report, with the following points:

1) Number of publications per year

Describes the number of articles or research publications that are relevant to the research field each year.

2) Number of publications per marketing strategy used

Describes the number of articles or research publications that are relevant to the field being researched per marketing strategy used.

3) Number of publications per country

It is the object of research from an article and will be recorded in which countries carry out research where later the total number of researches in each country will be calculated.

4) The research method used

Researchers will summarize the research methods used in this study which focuses on marketing strategy research in the field of digital marketing.

5) Industrial sectors that use digital marketing

Identify several industrial sectors that use digital marketing as one of the marketing methods in this research.

Bibliometric Analysis Stage

At this stage, a citation and co-citation analysis will be carried out. Not only that, at this stage an analysis will also be carried out regarding the development trend of marketing strategy research in the field of digital marketing before the Covid-19 pandemic.

Conclusion Drawing Stage

At this stage, there will be three main presentations, namely conclusions from the research that has been done, implications, and providing suggestions that serve to direct what should be prepared by further research to perfect and improve current research.

4 Results, Conclusions, and Implications

Results

Data Collection and Filtering Process

From the search results, 5,960 studies were obtained, the results were then filtered again based on the research subject area (business, management and accounting) so that 1,849 articles were obtained. Then, it was filtered again based on language (English), source (Journal), and document type (Article, Conference Paper, Review, Conference Review) so that there were 525 articles/papers. Of the 525 articles, a manual selection was carried out to ensure that the articles obtained were in accordance with the theme and needs of the research conducted. From the results of manual selection obtained data as many as 222 articles in accordance with the research conducted.

Descriptive Analysis

In the descriptive analysis stage, several analyzes will be seen, namely the number of publications per year, the number of publications per marketing strategy used, the number of publications per country, research methods, and industrial sectors that use digital marketing.

a. Analysis of Publications per Year

In this stage, it will be analyzed how the number of article publications per year is useful to provide an overview of the level of adoption of marketing strategy research in the field of digital marketing each year.

In Fig. 2, it can be seen that the research on marketing strategies in the digital marketing field at Scopus was carried out in 1998. Since that year the number of studies did not experience a significant increase and tended to stagnate until 2001. The increase began to be seen in 2002, although in 2004 decreased. There was an increase and decrease in research trends until 2016. However, starting in 2017 it continued to show an increasing trend until 2021. From 2018 to 2021, it can be seen that there was a sharp increase in the number of research from 20 to 55 publications.

b. Analysis of the number of publications per marketing strategy used

At this stage, it will be analyzed to find out what marketing strategies are widely used in conducting research in this field.

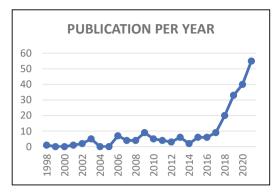


Fig. 2. Number of publications per year

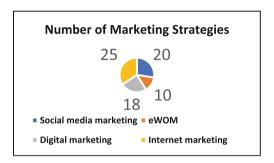


Fig. 3. Number of marketing strategies per publication

Figure 3 is an analysis of marketing strategy per publication. The data above is taken from several marketing strategies that are known and used in research in this field. There are four (4) marketing strategies that are widely used in this research: 1. Internet marketing (25 publications), 2. Social media marketing (20 publications), 3. Digital marketing (18 publications), and 4. eWOM (10 publications).

c. Analysis of number of publications per country

The next analysis is to find out which countries contribute to research in this field in terms of the number of publications per country.

In Fig. 4, it can be seen from 222 articles that the country with a contribution to research in this field is the United Kingdom with a percentage of 15% (33 publications). Then followed by the United States with 12% (25 publications), Indonesia with a percentage of 8% (17 publications), India with 6% (13 publications), and Australia 5% (10 publications).

d. Research Method Analysis

The next analysis is to find out what research methods are used in research in this field. In this analysis there are 3 research methods used in research in this field. Research methods with quantitative are mostly used by 48%, then qualitative methods as much

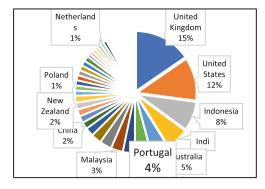


Fig. 4. Number of publications per country

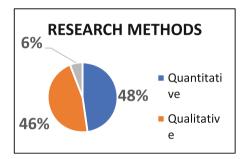


Fig. 5. Research methods used

as 46%, and the remaining research methods are mix that uses both types of methods (quantitative and qualitative) as much as 6%.

e. Industrial sectors that use digital marketing

The last descriptive analysis is to identify any industrial sector that uses digital marketing as a marketing strategy in making sales to organizations/companies.



Fig. 6. Industrial sectors that use digital marketing

There are four (4) industrial sectors that are widely used in this research, namely: 1. Tourism sector (14 publications), 2. Banking sector (7 publications), 3. Fashion sector (6 publications), and 4. Retail sector (6 publication).

Bibliometric Analysis

In this bibliometric analysis, there are several stages of research, namely citation analysis, co-citation analysis of research trends in this field, analysis of research conditions before until the time of the Covid-19 pandemic.

a. Citation Analysis

At this stage, a bibliometric citation analysis will be carried out on the data that has been obtained to find out which articles are often quoted and will analyze how changes in trends occur according to the visualization of the VosViewer software on the article data. In this citation analysis using a feature in the VosViewer software, namely document citation based on 222 entered data.

It can be seen that in the image there are 7 different colors which indicate that there are 7 citation clusters in the data.

- The red cluster discusses how the effect of using eWOM for communication and marketing strategy on the organization.
- The green cluster discusses how the effects of digital transformation on companies, especially their internationalization (export) capabilities.
- Dark blue cluster discusses the effects and benefits of information and communication technology on the global business environment in international marketing.
- The yellow cluster discusses the impact of using virtual communities and eWOM on the company's marketing strategy.
- Purple cluster discusses how companies respond, contribute to effective integrity, the impact of machine learning in identifying the use of eWOM on social media.
- The light blue cluster discusses how to market with word of mouth in online communities, especially among young people.

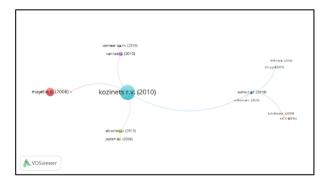


Fig. 7. Visualization of the citation network

 The orange cluster discusses the opportunities and challenges of using B2B effectively for companies in international marketing.

From the citation analysis, it can be seen that there are 3 publications that have had a major impact on research in this field:

- (Mayzlin, 2006).
 - "Promotional chat on the internet".
- (Kozinets, 2010).

"Networked narratives: Understanding word-of-mouth marketing in online communities"

(Watson, 2018).

"International market entry strategies: Relational, digital, and hybrid approaches"

b. Co-citation Analysis

The analysis was carried out using the VosViewer application with the co-citation by references feature which will show the mapping of the existing co-citations.

In the co-citation analysis, all articles quoted from 222 studies including articles were searched for co-citation relationships, thus allowing the emergence of new articles outside of the 222 articles used.

Of all the clusters in the co-citation network that have been analyzed, there is a relationship or direction of discussion that makes the articles finally divided into 5 clusters. Each cluster has its own focus on the topic of discussion and is different from the others.

- The red cluster is generally the direction of the discussion of the challenges, opportunities and impacts in the use of social media for companies.
- The green cluster generally discusses the development of research related to social media in the field of digital marketing.
- The blue cluster generally discusses the effects and challenges of online sales with word of mouth on the company.

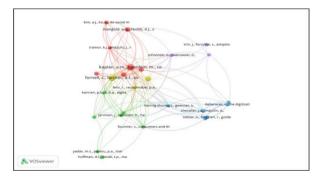


Fig. 8. Results of mapping the co-citation network

- The yellow cluster generally discusses the effects and functionality of using social media as a digital marketing tool in companies.
- The purple cluster discusses the impact of using technology on social media on brands and consumer buying intentions.

c. Analysis of Research Development Trends Before and During the Covid-19 Pandemic

In the analysis of research development trends, the co-occurrence feature in the VosViewer application is used to find out what keywords often appear in research, both in the title and abstract. The emergence of these keywords is then grouped by the year the article was published so that it can be seen which keywords often appear in a particular year and indicate ongoing research trends.

The period from 1998 to 2021 is divided into 2 periods with the following division:

1. Period I (1998 – 2020)

In the first period, which is from 1998 to 2019, it shows some of the main keywords that often appear. The occurrence of keywords is grouped by year which is indicated by the color spectrum at the bottom right corner. The blue color indicates between 1998 - 2000 and the green to yellow color indicates the period 2010 - 2019.

From this identification, it can be seen that the trend of research development in this field in period I (1998 – 2019) has increased both in terms of keywords, industrial sector, and methodology. This is in line with the increasing number of publications from year to year and research in this field is gaining interest and many other research topics will be discussed in the future.

2. Period II (2020 – 2021)

The second period from 2020 to 2021 showed an increase in the number of new keywords that appeared and there were also several keywords that appeared in the previous period.

From Fig. 10, it can be seen that several new keywords emerged as trends in this period, such as: social media marketing (2020), covid-19 (2020), and online marketing

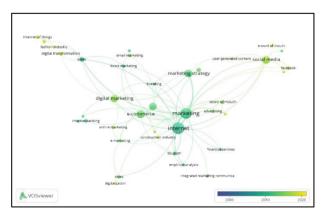


Fig. 9. Keyword map period I (1998 - 2019)

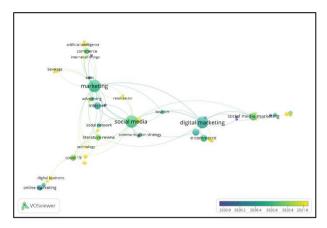


Fig. 10. Keyword map period II (2003 - 2010)

(2020). There are also new keywords that have emerged, such as: Airlines (2021), beverage (2021), dental industry (2021), retail sector (2021), and mining (2021). Not only that, there is one new keyword that has emerged, namely: bibliometric analysis (2021).

In the trend of research developments that occurred during the last two periods, it can be seen that the topics of discussion indicated by keywords are always experiencing additions, both in the industrial sector and the methodology used. Not only that, there are several keywords that can be combined and combined into a new research topic in the future related to this research field. This shows that research topics in this field are still worthy of research and can be developed again.

5 Confusions

Based on the results of data processing and analysis that has been done, here are some things that can be concluded in this study, among others:

- 1. In the descriptive analysis, it is known that the number of publications from 1998 2021 has grown. The marketing strategies that are widely used in this research are: Internet marketing, Social media marketing, Digital marketing, and eWOM. Then, it is known that the countries that contributed the most number of publications, namely: United Kingdom, United States, and Australia. The methodology in this study mostly uses quantitative.
- 2. There are four industrial sectors with the highest number of publications used in this research, such as: Tourism (14 publications), Banking (7 publications), Fashion (6 publications), and Retail (6 publications).
- 3. Citation network mapping describes related articles based on citations that occur and is automatically divided into 7 groups/clusters. The discussion topics for each cluster are as follows:
- The red cluster discusses how the effect of using eWOM for communication and marketing strategy on the organization.

- The green cluster discusses how the effects of digital transformation on companies, especially international marketing capabilities.
- The dark blue cluster discusses the effects and benefits of information and communication technology on the global business environment in international marketing.
- The yellow cluster discusses the impact of using virtual communities and eWOM on the company's marketing strategy.
- The purple cluster discusses how companies respond, contribute to effective integrity, the impact of machine learning in identifying the use of eWOM on social media.
- The light blue cluster discusses how to market with WOM in online communities.
- The orange cluster discusses the opportunities and challenges of using B2B marketing effectively for companies in international marketing.
- 4. The results of the citation network mapping analysis show that the articles that quote each other have a relationship in terms of content and general discussion topics. From the mapping results, it is also known that articles that have many relationships in the sense of being widely quoted by other articles are articles from (Mayzlin, 2006), (Kozinets, 2010), and (Watson, 2018). These articles provide a basic understanding of how the functions and benefits of using digital marketing in conducting strategic marketing are.
- The results of the co-citation analysis can be concluded that the articles in the realm of marketing strategy in the field of digital marketing cite articles that focus on other topics and are mutually related.
- 6. Related to research trends in this area before the pandemic until the time of the pandemic experiencing developments. This is indicated by the development of discussion topics, both in terms of keywords, industrial sector, and the methodology used in conducting research in this field.

6 Implications

Some of the managerial implications that can be given through the results of the formulation of this research are:

Adding insight into marketing strategy research trends in the digital marketing field for academics, and becoming a consideration for practitioners, especially marketers, to implement digital marketing in marketing during the current pandemic.

Shows that bibliometric analysis, literature review and structural equation modeling are research methods that are often used in various kinds of research. Bibliometric analysis and literature review as a form of non-field work that can be an alternative research method in order to remain productive in academic research in the current pandemic conditions.

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