ABSTRACT

This study aims to determine the sentiment towards digital marketing and its influence on purchasing tendencies over the last ten-year period, starting from 2014 to 2023. The method used is descriptive statistical analysis with meta-analysis and sentiment from secondary data in the form of metadata from 92 articles indexed by Dimention.ai with data processing using Microsoft Excel 2016 and SentiStrength. The results of the sentiment analysis show that the experts’ perceptions of the influence of digital marketing on purchase intentions have a positive sentiment of 63.0%, a negative sentiment of 10.9%, and the remaining neutral sentiment of 25.0%. These findings indicate that the trend of digital marketing on purchase intentions continues to increase and can provide a better understanding of the role of digital marketing in influencing purchase intentions. This research also provides practical guidance for marketing practitioners in designing more effective digital marketing strategies.

Keywords: Digital Marketing, Purchase Intention, Sentiment Analysis, SentiStrength

INTRODUCTION

The rapid development of technology is currently a solution for some people to fulfill their daily needs. It can be seen from the number of information technology users who utilize these facilities to obtain the information they need, one example is through the use of the internet. The internet is experiencing rapid growth as an easily accessible source of information, and this has created changes in consumption patterns to meet lifestyle needs (Zaerofi & Mawarendra, 2022). Utilizing the internet makes it no longer difficult for business people to access various information that supports their business activities (Izzah Nur Masyithoh & Ivo Novitangingtyas, 2021). Digital marketing is an option that many people are interested in because it allows communication and transactions by giving the impression of convenience and flexibility (Putri & Marlien, 2022).

Digital marketing can help to find out consumer responses to the products offered. When consumers’ needs are met, they tend to prefer to provide positive feedback and provide product or service recommendations to others (Amelia Ibnu Wasiat & Bertuah, 2022). Followed by the role of good service quality can improve customer quality (Hendrasto et al., 2024). With this pattern of interaction, it can help increase purchase interest from other consumers. Consumer interest in buying a product on the market will arise after the company succeeds in creating desire and
understanding in consumers that the product is wanted and needed by them (Az-Zahra & Sukmalengkawati, 2022).

In the context of marketing, an understanding of how digital messages and content influence consumer emotions can be the foundation for the development of more effective strategies. Modern consumers increasingly rely on digital platforms such as social media, websites and mobile apps to search for product information, read reviews and interact with them. Understanding how digital marketing influences consumer purchase intent is crucial for businesses looking to understand and respond to evolving consumer behavior.

Therefore, public sentiment or public opinion is a very important factor because of its ability to influence the actions, decisions, and behavior of individuals and groups in society. Public Sentiment can also have a significant impact on the image and reputation of an organization, company or government entity. As a result, companies and organizations are now starting to pay greater attention to public sentiment or opinion towards the products or services they offer.

This research provides a sophisticated understanding of consumer trends, preferences and behaviors in the context of digital marketing, enabling companies to take appropriate and adaptive actions. And sentiment analysis allows researchers to understand the dynamics of consumer emotions towards digital campaigns. By applying these techniques, interaction and engagement between companies and consumers can be enhanced, enabling companies and organizations to monitor public opinion on the products or services they offer.

There are many previous studies that have been conducted to measure the effectiveness and efficiency of digital marketing on purchase Intention. And the results are significant. As far as the author's observation, there is no research that measures the literature as a whole article related to this theme. Through this literature review, the author will review how artificial intelligence technology can be used to analyze sentiment sentences in scientific literature. This can help in understanding the opinions and opinions that emerge from the scientific literature on a topic more effectively and efficiently. This research is the first attempt to examine the perception of scientific literature related to the theme of "digital marketing towards purchase intention". Some of the benefits that can be obtained from this research are knowing the extent to which the portrait of the development of research perceptions on the theme of "digital marketing towards purchase intention" in the world of research through selected publication articles. In addition, this study looks at meta-analysis related to trends in research on the theme of "digital marketing towards purchase intention". This research can provide a deeper understanding of the mechanism of how digital marketing influences purchase intentions. It can help fill the knowledge gap in the marketing literature regarding the relationship between digital marketing and consumer behavior. In addition, this research also helps increase understanding of the factors that influence purchase intentions in a digital
context. This research helps provide an overview of how experts think about the influence of digital marketing on consumer purchase intentions.

RESEARCH & METHODOLOGY

Sentiment Analysis Concept

Sentiment analysis is an analysis that classifies the polarity of text contained in various contexts such as documents, sentences, or certain aspects, with the aim of assessing whether the opinions expressed in the text have a positive, negative, or neutral orientation. In addition, sentiment analysis can also reveal different types of emotions contained in the text, such as feelings of sadness, happiness, or anger (Liu, 2012). Sentiment analysis involves the process of understanding, extracting, and processing text data to obtain information about the sentiment contained in an opinion sentence. It aims to understand whether the opinions given by people towards a problem, object, or brand tend to be positive, negative, or neutral (Rozi et al., 2012).

Frequently used techniques in sentiment analysis involve applying various methods such as natural language processing, text analysis, and machine learning techniques. It aims to identify key words or features associated with a particular sentiment, as well as classify the text into appropriate sentiment categories. Sentiment analysis can be applied across various platforms such as social media, websites, or other data sources that contain text. The main focus of sentiment analysis is to understand people's views and feelings on a particular topic, and is often used as a basis for decision-making or marketing strategizing (Kaharudin et al., 2023).

Sentiment analysis is divided into three different subprocesses: Subjectivity Classification, Orientation Detection, and Opinion Holder and Target Detection. The majority of sentiment analysis studies are conducted in English, due to the availability of various tools and resources in the language. SentiWordNet and WordNet are two commonly used resources in sentiment analysis (Rusydiana & Izza, 2022). Sentiment analysis has the main purpose of categorizing text polarity at the scale of documents, phrases, or features and aspects, and recognizing whether the opinions contained in documents, sentences, and feature entities are positive, negative, or neutral. Sentiment analysis on scientific literature with the theme "digital marketing towards purchase intention" becomes feasible because there have been many published articles discussing how digital marketing works and can affect consumer buying interest in the products or services they offer.

Data

This study uses Dimensions metadata (https://www.dimensions.ai) to analyze data from research journals and scientific publications published with a focus on the theme "Digital Marketing Toward Purchase Intention" over the past 10 years.
starting from 2014 to 2023. The method applied in this research is a qualitative approach using descriptive statistics, through literature analysis of 92 publications related to the theme.

**Approach**

This research adopts an approach that combines qualitative methods and descriptive statistics in analyzing 92 publications on the theme "Digital Marketing Toward Purchase Intention". According to (Yusuf, 2017), qualitative deepening is a research approach that prioritizes exploring the meaning, characteristics, symptoms, understanding, concepts, symbols and descriptions of a phenomenon. This approach involves the use of several methods and the results are presented in a narrative. In other words, qualitative deepening is a process that involves searching, collecting, analyzing, and interpreting extensive visual and narrative data to gain a deeper understanding of a phenomenon or topic of interest.

Qualitative research is descriptive in nature, with a particular focus on methods of collecting, organizing and presenting research data in summary form in the field of statistics. The data needs to be described in a consistent and acceptable manner, either through tables, graphs, or graphic presentations, to be used as a basis for various assessments. Descriptive statistics is the part of statistics that studies the techniques of collecting, organizing, and reporting research data in a concise manner. To ensure informed decisions, data must be presented clearly and consistently, whether in the form of tables, graphs, or diagrams. Microsoft Excel was chosen as the tool to perform this process.

In this research, a sentiment analysis or opinion development approach is also applied, which aims to evaluate people’s general opinions or views on a topic. It is one of the commonly used methods in measuring people’s response to a particular issue or theme. Sentiment analysis belongs to the Text Mining domain and has been popular since early 2002 (Haidar et al., 2022).
Figure 1. Methodology for Sentiment Analysis

Then the author designed a research framework as depicted in figure 1 which describes in detail the methods used to conduct sentiment analysis on scientific publications on the theme "Digital Marketing Toward Purchase Intention". Opinion development or sentiment analysis is used to identify people’s attitudes towards a particular issue. In its simplest form, text analysis aims to process words, not numbers.

The results of sentiment reviews can be expressed in the form of feelings such as sadness, joy, or anger which form the basis of research to form views on a particular topic. In this research themed “Digital Marketing Toward Purchase Intention”, Microsoft Excel 2016 and SentiStrength software were used to calculate sentiment analysis. Furthermore, a meta-analysis was conducted to assess the impact of the selected research domain, reviewing aspects such as the number of publications, most cited articles, authors, and journal classifications related to the research theme "Digital Marketing Toward Purchase Intention" in the context of global research.
RESULT AND DISCUSSIONS

Graph 1. Number of Publications Per Year

This section discusses articles that have been published on the theme of Digital Marketing Toward Purchase Intention. As a result, there are 92 articles published in the 10-year observation period from 2014 to 2023. The article with the most published topic was in 2022 with 30 publications and followed by 2021 with 19 publications. While the temporary publication for 2023 recorded 3 publications and did not cover the whole considering the data collection was carried out in June 2023.

Furthermore, this section presents the results of publications based on 101 journals from various indexed and reputable publications on the theme of digital marketing towards purchase intention. Among the 92 research studies, research on the theme of Digital Marketing Toward Purchase Intention was published including in the following journals.

Table 1. Journal Classification

<table>
<thead>
<tr>
<th>Focus Study</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developments in Marketing Science: Proceedings of the Academy of Marketing Science</td>
<td>12</td>
</tr>
<tr>
<td>Jurnal Ekonomi Syariah Teori dan Terapan</td>
<td>4</td>
</tr>
<tr>
<td>Sustainability</td>
<td>3</td>
</tr>
</tbody>
</table>

Based on table 1 above, there is a tendency of disparity in journal contributions in articles that discuss the theme of "digital marketing toward purchase intention". Multidisciplinary topics such as developments in marketing, applied Islamic economics, and sustainability are all research fields that are interested in discussing digital marketing toward purchase intention. Thus, various journals with various disciplines are presented in our data set, such as the journal Developments in
Marketing Science: Proceedings of the Academy of Marketing Science, Journal of Sharia Economics Theory and Applied and Sustainability. However, it is possible that the number of articles will increase along with the development of science and the increasing trend of digital marketing toward purchase intention in the world of research.

Table 2. Top 3 Authors

<table>
<thead>
<tr>
<th>Authors</th>
<th>Number of Publications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ignatius Enda Panggati</td>
<td>2</td>
</tr>
<tr>
<td>Diego M Cecchini</td>
<td>2</td>
</tr>
<tr>
<td>Hedy Teppler</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 2 lists the three most prolific article authors with publications on the theme of "digital marketing towards purchase intention" published in the last 10 years. The three authors of the article are the top in the most publications of articles on digital marketing toward purchase intention with the same number of 2 publications. Ignatius Enda Panggati is the top author, followed by Diego M Cecchini and Hedy Teppler with the same number of publications.

One of the studies written by (Panggati, 2019) with the title "Analysis of Factors Affecting Consumer Attitudes on Digital Advertising in Indonesia". This study discusses consumer attitudes towards digital advertising in Indonesia which have an impact on the desire to buy. With the help of its three independent variables, namely entertainment (ENT), informativeness (INF) and credibility (CRD), it was found that this could improve consumer attitudes towards digital advertising and be able to increase purchasing intensity. The research found that digital ad credibility has a significant impact on consumer attitudes and purchase intentions, the implication is that marketing practitioners can focus on improving the credibility of their ads, such as by including testimonials from customers or using credible resources in their advertising campaigns. In addition, if the interactivity of digital ads is shown to play an important role in shaping consumer attitudes, then marketing practitioners can allocate more resources to develop ads that allow for greater interaction from consumers. Thus, the findings from Panggati's research are enough to illustrate that through digital platforms, businesses can improve marketing campaign success and overall business growth.

Table 3. Most Cited Publications

<table>
<thead>
<tr>
<th>Citation</th>
<th>Authors</th>
<th>Paper Name</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>91</td>
<td>Torres, Pedro; Augusto, Mário; Matos, Marta</td>
<td>Antecedents and outcomes of digital influencer endorsement: An exploratory study</td>
<td>2019</td>
</tr>
</tbody>
</table>
Table 3. above describes the publications with the most citations from each indexed and reputable journal. The article with the most citations was written by (Torres et al., 2019) with the title "Antecedents and outcomes of digital influencer endorsement: An exploratory study". This study discusses the influence of digital influencer attractiveness and the effect of compatibility between digital influencers and brands on consumer attitudes and purchase intentions. In this study the results show that brand attitude and purchase intention are influenced by the attractiveness of digital influencers (which includes likability and familiarity) and by the fit between digital influencers and brands. The study identified antecedents or factors that precede the use of digital influencer endorsements, such as consumer trust in the influencer, the quality of the content delivered by the influencer, or the relevance between the influencer and the endorsed product. In addition, the study also investigated the outcomes of using digital influencer endorsements, such as increased consumer knowledge about the product, changes in attitude towards the brand, and most importantly, purchase intentions. The findings from this study show that the involvement of digital influencers in marketing can influence consumers’ perceptions
and attitudes towards the endorsed brand or product, which in turn can increase purchase intentions. Meanwhile, other publications are listed in the top categories with the most citations listed in table 4 above.

**Sentiment Analysis**

Furthermore, the author tries to calculate sentiment with the theme of digital marketing towards purchase intention published from 2014 to 2023 from indexed and reputable journals. Sentiment analysis is a research commonly used to measure public sentiment towards a theme. The tool used in this research is SentiStrength as a data processing tool. Specific documents in articles, reviews, and conference articles related to the theme of digital marketing towards purchase intention as many as 92 were selected as data sources. The following figure is the result of sentiment analysis on digital marketing toward purchase intention:

![Sentiment Analysis Figure]

The sentiment score is obtained from the title and abstract of the article. Results are sorted from the interval strongly negative (-5) to strongly positive (-5), with 0 being neutral. The score is calculated by multiplying the sentiment score assigned to each word in SentiStrength. As illustrated above, the theme of digital marketing toward purchase intention has a high proportion of positive sentiment of 63.0%, followed by a neutral sentiment ratio of 25.0%, and followed by a proportion of negative sentiment of 10.9%, and the rest followed by a very high positive sentiment ratio of 1%. This means that the majority of literature on the theme of digital marketing towards purchase intention has a positive value.

Positive sentiment is an abstract sentiment derived from literature that is positive and tends to be optimistic in responding to the issue of digital marketing toward purchase intention by agreeing and arguing that digital marketing has a fairly good value on purchase intention. This indicates that digital marketing has the opportunity to become a promising market. Meanwhile, negative sentiments refer to scientific literature that still says that direct purchases still play a role in determining purchasing decisions.
The data shows that the majority of sentiment literature is positive in response to the existence of digital marketing towards purchase intention. However, we also find that there are more neutral responses than negative responses. With the development of research related to Digital marketing towards purchase intention, the amount of sentiment towards the research tends to fluctuate from year to year. This means that this theme is often discussed in the literature, and it is interesting to discuss and see the development of sentiment towards this theme.

### Table 4. Key Factors Affecting Sentiment

<table>
<thead>
<tr>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Social Network</td>
<td>Import</td>
</tr>
<tr>
<td>Blog Content</td>
<td>luxury and expensive products</td>
</tr>
<tr>
<td>Advertising</td>
<td>Negative Reviews</td>
</tr>
<tr>
<td>Digital Influencers</td>
<td></td>
</tr>
<tr>
<td>Online Reviews</td>
<td></td>
</tr>
</tbody>
</table>

Table 4 above summarizes the research findings, which include the main characteristics that influence public sentiment, both positive and negative, based on articles published on Digital marketing toward purchase intention over the past 10 years. One article that has positive sentiment is an article written by (Ho & Wang, 2020) entitled "Does Social Media Marketing and Brand Community Play the Role in Building a Sustainable Digital Business Strategy?". The study aims to determine the relationship between Brand Social Network (BSN) with consumer-community identification (CCI) and consumer-retailer love (C-R Love) which can positively influence purchase intentions and Word of Mouth (WOM) communication. This study found that customer relationships for BSN have the potential to have a significant positive effect on consumer community identification. In this study the authors highlight an important point that a good Brand Social Network can help increase purchase intention. That means the use of digital marketing has a significant influence on consumer intention to buy a product or service.

Meanwhile, for articles with negative sentiment is an article written by (Sahagun & Vasquez-Parraga, 2017) entitled "Differential Consumer Adoption of Imported Products: Process, Purchase Intention, and Market Development Level (An Abstract)". This study aims to determine the process that leads consumers to adopt imported products and their effect on consumer purchase intention and the level of market development on purchase intention for imported products. The results of this study indicate that the process of adopting imported products has a determinant influence on consumer purchase intention on imported products.

This suggests that digital marketing can create stronger perceptions of imported products, due to its wider scope and influence. This could be due to the content presented in digital marketing, such as positive reviews from influencers or
interesting information about imported products. Second, the influence of digital marketing may reduce consumers' trust in local products, as they are more exposed to imported products that are aggressively promoted through digital platforms. As a result, consumers tend to prefer imported products over local products. This negative impact is likely to harm the domestic market as it may reduce the demand and sales of local products, which in turn may hinder domestic economic growth and create trade imbalances. In addition, if people's consumption of imported products is too high, it may also affect the competitiveness of local producers and lead to decreased investment in domestic industries.

Finally, the neutral sentiment that dominates on the theme of Digital marketing towards purchase intention can be seen from the article written by (Zhang et al., 2022) with the title "Antecedents and Consequences of Banking Customers' Behavior towards Social Media: Evidence from an Emerging Economy". This research discusses customer attitudes towards social media. These attitudes are related to corporate social responsibility regarding attitudes towards social media, customer behavior outcomes, such as electronic word of mouth (E-WOM), and purchase intentions. The influence of digital marketing on consumer purchase intentions depends on how much responsibility the company has for its marketing on social media and the results of customer behavior based on the reviews given.

CONCLUSIONS AND RECOMMENDATIONS

This study aims to determine the development of scientific literature on the theme of Digital marketing toward purchase intention over the past 10 years from 2014 to 2023 with 92 literatures equipped with Digital-Object-Identifier (DOI). In addition, this review includes sentiment analysis of a comprehensive evaluation of interdisciplinary research on Digital marketing toward purchase intention. The findings of this research in terms of sentiment analysis, Digital marketing toward purchase intention has a high proportion of positive sentiment of 63.0%, followed by a neutral sentiment ratio of 25.0%, and a negative sentiment proportion of 10.9%. And the proportion of high positive sentiment is 1%. This means that most of the literature on the theme of digital marketing towards purchase intention tends to have a good sentiment (positive).

This research makes a theoretical contribution by exploring the relationship between digital marketing and consumer purchase intention through a sentiment analysis approach. By highlighting the high proportion of positive sentiments, this study strengthens the understanding of how digital campaigns influence consumer attitudes and behaviors towards purchasing products or services. In addition, the findings on the proportion of positive, neutral and negative sentiments can help researchers to design a more holistic model in explaining the factors that influence consumer purchase intentions in the context of digital marketing. This research contributes by exploring the sentiment patterns found in the related literature on the
theme of "digital marketing towards purchase intention". This helps in understanding how certain variables in digital marketing strategies can influence consumers' emotional responses, thus enriching the literature on consumer psychology in the online context.

In addition to theoretical contributions, this study provides practical guidance for marketing practitioners in designing more effective digital marketing strategies. First, knowing that most of the literature has positive sentiments, marketing practitioners can direct their resources to campaigns that have a positive impact on consumers' purchase intentions. Second, the sentiment analysis in this study can help marketing practitioners optimize their digital content. By understanding the types of content that tend to trigger positive sentiments, companies can create content that is more interesting and relevant to their audience, thereby increasing consumer interaction and engagement. Third, the results of this study can also help companies in adjusting their communication strategies. By knowing that positive sentiments dominate, companies can focus on messages that reinforce the positive image of their brand and increase consumer confidence in the products or services offered.

Despite making valuable contributions theoretically and practically, this research has some limitations. It should be emphasized that although the main purpose of this research is to provide an overview of trends and research views related to the topic of "digital marketing towards purchase intention", within the limited timeframe and with the results presented still dynamic, there is a possibility of changes over time to new emerging trends or additional variables that can be identified in the future. Therefore, future researchers are expected to extend the time scope of the study to accommodate changes that occur over time. Suggestions for future research are to conduct a broader and more comprehensive sentiment analysis by considering additional aspects of the field of study or using a variety of diverse technologies to obtain more complete results.

REFERENCES


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