Digital Marketing at SMEs by Bibliometric Analysys

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ABSTRACT

Purpose: Digital marketing has evolved from the marketing of products and services to digital channels for activities, institutions, and processes facilitated by digital technology. This study provides a disciplinary broad overview of the academic contribution to the marketing revolution by exploring changes in digital marketing research in SMEs cited by scientific researchers over 19 years (2001-2020). Thus, this paper presents a systematic literature review using bibliometric analysis with the aim of examining development trends, identifying gaps, understanding the advantages and benefits of digital marketing on SMEs and mapping out new hypotheses for future research.

Design/methodology/approach: The method used is a bibliometric study to search for articles related to the research theme.

Findings: The results show that social media is the keyword that is often employed. Related research has been achieved in many countries, and the most predominant are England and America.

Research limitations/implications: This study is limited to a single database, Scopus, from 2001 to 2020.

Practical implications: The findings of this study are likely to serve as a starting point for future research in digital marketing. Besides, it becomes a resource to make the most of social media marketing to grow SMEs.

Originality/value: This paper is original.

Paper type: a Research Paper

Keyword: Digital Marketing, Marketing Strategy, SMEs, Systematic Literature Review

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I. INTRODUCTION

Customers in this business era can be reached, informed, offered, and sold products and services through digital marketing. Digital marketing is likely to stay at the forefront of the technology revolution since it can accomplish anything. (Belyaeva et al., 2020; Jabłoński & Jabłoński, 2020; Jawad et al., 2021). Digital marketing through social media and mobile infiltrates millions of people's everyday lives quickly, develops into a general social media activity, and frequently results in the creation of customer relationships. (Alavi, 2016; Chiang, 2019; Tandon et al., 2020). Digital marketing has enhanced businesses' capacity to interact with consumers by reaching out, educating them about goods and services, and eventually closing sales. (Kamal, 2016; Kuazaqui & Lisboa, 2019; Shadrin & Kotova, 2020).

In addition to the technological breakthroughs that have emerged from this evolution, many scholars and marketers are examining the quick development of digital technology, social media, and mobile marketing. Digital marketing has advanced beyond advertising particular goods and services to advertising institutions, processes, and activities made possible by digital technology. Digital marketing refers to the flexible processes and technology that allow businesses to work together with customers and partners to create, communicate, deliver, and sustain value for all parties involved (Purcărea, 2020; Tarabasz, 2019). Digital technology enables new adaptive institutions and processes in SMEs. In addition to their clients, institutions build the fundamental skills necessary to create value together, and the process itself generates value through fresh customer encounters and experiences in the emerging digital world.
Since a decade ago, social media have added new information and communication features that serve a wide range of user interests, including mobile networking, blogging, and photo/video sharing. (Das & A, 2020; Kefalaki, 2019). Social media has evolved from a specialized technology geared for a small number of users to a tool that is now an essential component of the everyday lives of millions of people. Artificial intelligence (AI) services, multi-channel networks, augmented reality (AR), and virtual reality (VR) are just a few examples of digital technology-based marketing communications that appear to be reshaping the landscape of digital marketing communications and offering fresh research directions in the wake of social media (Duffett, 2017; Puangmaha et al., 2020; Tardin et al., 2020).

This study examines developments in Digital Marketing research on SMEs mentioned by scientific academics over 19 years to provide a comprehensive disciplinary perspective of the academic contribution to the marketing revolution (2001-2020). After Facebook was founded in 2004 and pushed for social media's exponential expansion globally, businesses and consumers started utilizing social media on a large scale. The social media ecosystem has evolved into a global community for users who utilize it for recreational and business purposes. Thus, analyzing digital marketing quotes on SMEs from 2001 to the present as a social media-driven era presents a special opportunity to investigate how social media has affected and continues to effect the digital marketing domain. The analysis can also look into the efficacy of different assessment methodologies, such as new directions for capturing valuable insights and the importance of communication in Digital Marketing. The goals of this study are to determine the current state of digital marketing research and its impact on SMEs.

It's critical to assess Digital Marketing research from a historical standpoint to assess its current and future influence (Purcărea, 2020). Digital marketing research established a critical theoretical and methodological viewpoint on the field between 2004 and 2016. This study has the ability to define a hub for the nascent discipline of Digital Marketing by reviewing major articles, allowing scholars to assess its impact and explore future research possibilities. The Digital Marketing domain is given a conceptual and scientific context in this investigation. The following study questions will focus on three major themes.
1. What papers are influential on Digital Marketing research? Who is the author with the most citations? What are the most widely mentioned articles in the field of digital marketing?
2. How far has digital marketing research progressed in SMEs? What are the common threads running through the most widely cited texts on digital marketing?
3. What are the current digital marketing trends in SMEs? From the year of publication, how has digital marketing progressed? What does the participation of countries and institutions play in the development of digital marketing?

As a theoretical foundation, social media and online social networks have shaped the domain of Digital Marketing in SMEs in the social media era between 2001 and 2020. For academics and practitioners looking for tactics to create effective digital marketing in SMEs, the study's findings and implications for digital marketing—social media, customer relationship management, and digital marketing performance—provide insights and thematic implications. The depiction of social networks among scientific communications towards Digital Marketing as a discipline is made possible by bibliometric visualization analysis. The analysis contains co-cited writings about the influence of social media and its interactivity that can allow the "college" or research community to have a significant impact on Digital Marketing research. Bibliometric analysis, which includes a citation and co-citation analysis, is functional for determining the patterns and characteristics of paper to ease the investigation, organization, and articulation of the work done in a given discipline (Ferreira et al., 2014). Bibliometric analysis has the capacity to direct collection growth, characterize institutional strengths, uncover potential schools of thought within a discipline, and characterize citation/share quotation tendencies. (Lewis & Alpi, 2017). In written notes for scholarly work and scientific communication, bibliometrics has various uses. An objective method for evaluating all or a portion of a discipline, bibliometric analysis uses citation and co-citation analysis to quantitatively evaluate textual source documents (such as journal articles and books). (Ferreira et al., 2014). Bibliometric research based on citation analysis aids in the discovery of new themes and recent breakthroughs in a subject, besides the effect of great writers (Willett, 2007) and the impact of various journals and schools of thought (Baumgartner & Pieters, 2003). In numerous study fields, such as sociology of science (J. Kim & McMillan, 2008), humanities (Storer & Crane, 1974), marketing (Ferreira et al., 2014), Internet marketing research (Bar-Ilan & Peritz, 2001), and marketing communications, it also reflects the intellectual structure of a discipline (J. Kim & McMillan, 2008). Previous bibliometric research, which goes beyond merely collecting and gathering citations, has shown the shape and direction of a discipline's evolution. This research is particularly focused on evaluating authors and cited works that are of interest to other academics. (Bar-Ilan & Peritz, 2001; Ferreira et al., 2014; J. Kim & McMillan, 2008; Storer & Crane, 1974).

A bibliometric technique known as "citation analysis" uses citations as the main analytical unit. (J. Kim & McMillan, 2008). Citations are used in research to reference earlier authors, concepts, hypotheses, methods, or
findings (Ferreira et al., 2014). The usage of a particular work by an expert who quotes and communicates the work's value, importance, and influence is indicated as a citation. Furthermore, assumptions can be utilized to specify citations in scholarly papers (Smith et al., 1981). The researcher mentions the most important work, and the works referenced are related to the citing work's topic. The most referenced work can elucidate important concepts, definite theoretical, and develop critical issues that drive a discipline through citation analysis. Furthermore, research on who shaped the area can be aided by looking at the most cited authors.

Calculating the frequency of a selected pair of works referenced together in a published article is called the co-citation analysis (White & McCain, 1998). Co-citation analysis highlights prime papers and their interrelationships. It allows researchers to gain a better understanding of the research topic development (J. Kim & McMillan, 2008). Such an examination goes beyond determining whether the authors and publications are valuable to other scholars (Pasadeos et al., 1998). Articles that have been co-cited by several other works will be linked and calculated based on how many researchers cite articles (Ferreira et al., 2014).

II. METHODOLOGY

The author gathered data for this bibliometric analysis from citations in Scopus-indexed articles regarding Digital Marketing in SMEs. For a variety of reasons, this analysis focuses on these datasets. First and foremost, Scopus, which is a well-known scientific publication database, is a prime academic database that publishes articles, including marketing fields (J. Kim & McMillan, 2008). Journal Citation Reports states that this database has a high impact factor (2016). Additionally, it enables scholars to assess the top journals across various disciplines, high-impact journals, and journals with the most citations. Second, previous bibliometric research tended to concentrate on the primary publications for a discipline. (J. Kim & McMillan, 2008; Pasadeos et al., 1998).

This bibliometric analysis searches the Scopus database for articles about Digital Marketing in SMEs published over 19 years (2001-2020). All digitally linked articles from these sources are involved in the study. A total of 324 articles were found and analyzed. All the components in the 822 citations for each publication were coded by the authors. Because data collection does not require coding of judgments, reliability coefficients are not appropriate for bibliometric studies like this one (J. Kim & McMillan, 2008). Due to the enormous number of data sets, reliable data collecting is essential. Therefore, it is necessary to re-examine the complete collection of 822 citations after classifying and recording the dataset.

Social media was introduced to the general public in 2004 with the launch of Facebook. As more businesses and consumers start using social media, academics and advertising professionals are starting to look into social media's potential as a medium for advertising. Since social media has been around for more than ten years, it has included new information and communication technologies like mobile networking, blogging, and photo/video sharing, enabling users to express a variety of interests in their ongoing dialogue. From a specialized technology with few users, social media has developed into a major means of communication.

This study aims to provide a thorough disciplinary review of the important works in research on digital advertising. The study also examines the effectiveness of several evaluation approaches across a 19-year period, including new metrics that capture relevant brands and advertising experiences (2001-2020). The review establishes the state of the field's assessment research on digital technology and shows how it has affected advertising evaluation.

All of the citations in each publication were examined by the writers using citation and co-citation analysis. Citation analysis follows publishing patterns based on the assumption that many subject-matter experts consider the author or work that has received a lot of citations to be significant. The citation study aims to clarify the most cited authors working in Digital Marketing in SMEs to answer research objectives 1 and 2. Citations are categorized specifically by recoding all authors' names in the referenced work, the order of multiple authors, the title and the year of the cited, and all citations. The first, second, and third authors are rated amounts in this citation analysis. Three points are awarded to the first author, two points go to the second author, and one point is awarded to the third author. Coding methods for first, second, and third authors were used in the research of the most cited authors and the analyses of the most cited works in order to more clearly demonstrate the influence that the author and the work had on other academics. Coding methods for first, second, and third authors were used in the research of the most cited authors and the analyses of the most cited works in order to more clearly demonstrate the influence that the author and the work had on other academics. (J. Kim & McMillan, 2008).

The structure and evolutionary history of a domain can be ascertained with the aid of co-citation analysis. Co-citation analysis is a form of citation network analysis approach that chooses the most cited articles as the study's subject and uses network analysis techniques to group the most cited articles into clusters that
correspond to the research theme. According to this method, the citation analysis of this study may be used to deduce the structure and characteristics of the domain of digital marketing.

Co-citation analysis uses the Gephi tool to visualize data by counting the number of documents that cite a particular set of documents. In order to find the frequency of co-citations and their networks, researchers might use co-citation answer research questions 3.

This study employs Vosviewers, an open-source graph or network analysis software, to analyze the citations (Omoregbe et al., 2020). It is applied to illustrate enormous networks in real-time and speeds up assessments, opening new ways to work with massive data sets and producing vital visual results (Omoregbe et al., 2020). Vosviewers' capabilities allow for full access to network data, as well as organizing, filtering, navigation, grouping, and emphasizing key aspects of dynamic network visualization (Omoregbe et al., 2020). Visualization can help you improve your perceptual capacity to discover features in the citation network's structure (Leung et al., 2014).

![Figure 1. Method Flow Chart](image)

### III. RESULTS AND DISCUSSION

Result and discussion must be written in the same part. They should be presented continuously start from the main result to the supporting results and equipped with a discussion. Unit of measurement used should follow the prevailing international system. All figures and tables placed separately at the end of manuscript pages and should be active and editable by editor.

**A. Authors and papers with the most citations**

To answer research question 1, we analyzed the most cited authors and the most cited papers identified in articles on Digital Marketing in SMEs (see Tables 1 and 2). There are parallels between the two lists of the most cited authors and most cited papers in terms of citations. Haenlein, for instance, had the most citations in Table 2 (Kaplan & Haenlein, 2010) work came in top place in Table 2. (Kaplan & Haenlein, 2010) paper, reflecting social media, still influences the domain of Digital Marketing as a theoretical foundation. In Table 1, Karjaluoto is the second most cited author, yet his 2015 paper alongside Mustonen and Ulkuniemi is set eighth in Table 2. An early paper by Michaelidou and Christodoulides (Michaelidou et al., 2011) on SMEs appears to have influenced the discipline of Digital Marketing. Tables 1 and 2 show how the most referenced authors and research have shaped the subject of Digital Marketing.
Table 1. Author with the most citations about digital marketing

<table>
<thead>
<tr>
<th>No</th>
<th>Author</th>
<th>Citations</th>
<th>Total link strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>haenlein, m.</td>
<td>102</td>
<td>606</td>
</tr>
<tr>
<td>2</td>
<td>karjaluoto, h.</td>
<td>95</td>
<td>576</td>
</tr>
<tr>
<td>3</td>
<td>hair, j.f.</td>
<td>88</td>
<td>840</td>
</tr>
<tr>
<td>4</td>
<td>kaplan, a.m.</td>
<td>86</td>
<td>526</td>
</tr>
<tr>
<td>5</td>
<td>agnihotri, r.</td>
<td>74</td>
<td>838</td>
</tr>
<tr>
<td>6</td>
<td>christodoulides, g.</td>
<td>74</td>
<td>627</td>
</tr>
<tr>
<td>7</td>
<td>spence, c.</td>
<td>74</td>
<td>134</td>
</tr>
<tr>
<td>8</td>
<td>rapp, a.</td>
<td>73</td>
<td>846</td>
</tr>
<tr>
<td>9</td>
<td>ringle, c.m.</td>
<td>70</td>
<td>720</td>
</tr>
<tr>
<td>10</td>
<td>sarstedt, m.</td>
<td>70</td>
<td>738</td>
</tr>
<tr>
<td>11</td>
<td>verhoef, p.c.</td>
<td>65</td>
<td>413</td>
</tr>
<tr>
<td>12</td>
<td>grewal, d.</td>
<td>64</td>
<td>571</td>
</tr>
<tr>
<td>13</td>
<td>fornell, c.</td>
<td>63</td>
<td>517</td>
</tr>
<tr>
<td>14</td>
<td>kumar, v.</td>
<td>59</td>
<td>368</td>
</tr>
<tr>
<td>15</td>
<td>teece, d.j.</td>
<td>57</td>
<td>143</td>
</tr>
<tr>
<td>16</td>
<td>wang, y.</td>
<td>57</td>
<td>395</td>
</tr>
<tr>
<td>17</td>
<td>buhalis, d.</td>
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<td>288</td>
</tr>
<tr>
<td>18</td>
<td>michaelidou, n.</td>
<td>55</td>
<td>499</td>
</tr>
<tr>
<td>19</td>
<td>kotler, p.</td>
<td>53</td>
<td>193</td>
</tr>
<tr>
<td>20</td>
<td>law, r.</td>
<td>53</td>
<td>270</td>
</tr>
</tbody>
</table>

In Table 1, Kaplan is the fourth most-referenced author, with his 2010 essay with Haenlein (Kaplan & Haenlein, 2010) ranking first. As a result, Haenlein is the author with the most citations in Table 1. In digital marketing, Agnihotri and Rapp have emerged as key influencers. His paper on social media technology is
estimated to have influenced CRM. Besides, Verhoef has contributed to several articles addressing marketing in the digital age. Afterward, Mangold made a name for himself as a writer by utilizing social media as a marketing tool. Social media marketing is the second most cited career, according to (Mangold & Faulds, 2009). With numerous papers, Hair is the third most mentioned author in Table 1. In Table 1, Christodoulides is the eighth most cited author. His 2011 paper with (Michaelidou et al., 2011) on the impact of social media on small businesses was the third most cited. In general, the authors included in Tables 1 and 2 have solidified the area of Digital Marketing as a discipline.

Table 2 shows the 55 articles that were cited at least six times. Influential journals publish the most cited articles. Journal of Small Business and Enterprise Development is the most often cited journal. They have 11 papers which are shown in Table 2. The Journal of Small Business and Enterprise Development covers a wide range of issues, including Social Media Marketing and SMEs (Camilleri, 2019; Durkin et al., 2013; Dutot & Bergeron, 2016; Jones et al., 2015; McCann & Barlow, 2015; Michaelidou et al., 2011; Sultan & Sultan, 2020; Taiminen & Karjaluoto, 2015), Internet manufacturing (Kevin Tseng & Johnsen, 2011), and business models in Digital Marketing (Barnes et al., 2012; Depaoli et al., 2020; Virtanen et al., 2017).

Table 2. Paper with the most citations about digital marketing

<table>
<thead>
<tr>
<th>No</th>
<th>Citations</th>
<th>Author</th>
<th>Year</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>55</td>
<td>kaplan, a.m., haenlein, m., 2010</td>
<td>users of the world, unite! the challenges and opportunities of social media</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>26</td>
<td>mangold, w.g., faulds, d.j., 2009</td>
<td>social media: the new hybrid element of the promotion mix</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>26</td>
<td>michaelidou, n., siamagka, n.t., christodoulides, g., 2011</td>
<td>usage, barriers and measurement of social media marketing: an exploratory investigation of small and medium b2b brands</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>24</td>
<td>kietzmann, j.h., hermkens, k., mccarthy, i.p., silvestre, b.s., 2011</td>
<td>social media? get serious! understanding the functional building blocks of social media</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>16</td>
<td>fornell, c., larcker, d.f., 1981</td>
<td>evaluating structural equation models with unobservable variables and measurement error</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>15</td>
<td>durkin, m., mcgowan, p., mckeown, n., 2013</td>
<td>exploring social media adoption in small to medium-sized enterprises in Ireland</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>14</td>
<td>constantinides, e., fountain, s.j., 2008</td>
<td>web 2.0: conceptual foundations and marketing issues</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>13</td>
<td>tiago, m.t.p.m.b., verissimo, j.m.c., 2014</td>
<td>digital marketing and social media: why bother?</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>12</td>
<td>felix, r., rauschnabel, p.a., hinsch, c., 2017</td>
<td>elements of strategic social media marketing: a holistic framework</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>12</td>
<td>kim, a.j., ko, e., 2012</td>
<td>do social media marketing activities enhance customer equity? an empirical study of luxury fashion brand</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>11</td>
<td>trainor, k.j., andzulis, j.m., rapp, a., agnihotri, r., 2014</td>
<td>social media technology usage and customer relationship performance: a capabilities-based examination of social crm</td>
<td></td>
</tr>
</tbody>
</table>
Industrial Marketing Management is the second most cited journal, with ten articles included in Table 2. The majority of articles in the Journal of Advertising deal with the Digital Marketing capabilities (Fehrer & Nenonen, 2020; Herhausen et al., 2020; Kouropalatis et al., 2019) and Digital Marketing Performance in the Sales (Agnihotri, 2020; Ancillai et al., 2019; Fliess & Lexutt, 2019; Keeling et al., 2020; Müller et al., 2018; Troisi et al., 2020). Besides, they have influenced the Digital Marketing domain significantly.

The Journal of Business and Industrial Marketing is the third most often cited journal, with nine articles mentioned in Table 2. Two articles in the Journal of Business and Industrial Marketing deal with the business strategy (Guo et al., 2019; Wongsansukcharoen et al., 2015) and social media in SMEs (Bocconcelli et al., 2018; Eid et al., 2019), which includes social media in B2B companies (Andersson & Wikström, 2017; Bocconcelli et al., 2017; Huotari et al., 2015; Wang et al., 2017) and social media in industrial markets (Shaltoni, 2017).

The International Journal of Supply Chain Management is the fourth most often cited journal, with eight unique articles shown in Table 2. The function of digital marketing in supply chains for SMEs (Ainindam et al., 2020; Noviyanti et al., 2020; Tajuddin et al., 2018) and enterprises is discussed in the International Journal of Supply Chain Management (Belal et al., 2020; Hotrawaisaya et al., 2019; Martey et al., 2020; Watthanabut, 2019). Digital marketing strategies are also discussed in the Journal of Interactive Marketing (Hartono et al., 2020).

The Journal of Retailing and Consumer Services is the sixth journal with eight articles on Digital Marketing, some of which are presented in Table 2. The Journal of Retailing and Consumer Services examines the relationship between digital marketing and customers (Ahani et al., 2019; Augusto et al., 2019), as well as the impact of personal characteristics (Behera et al., 2020; Jacobson et al., 2020; Niu et al., 2021), and service (Akram et al., 2020; Di Fatta et al., 2018; Kaatz, 2020).
B. Themes that have been mentioned the most

Thematic tendencies among 324 articles can be examined by grouping the most cited articles by publication. It is especially beneficial in papers that expressly target Digital Marketing. The authors verify emerging themes among the most cited publications on Digital Marketing in SMEs to answer research question 2. The five key themes are social media marketing, customer relationship management, business performance, strategy, and innovation.

Social media marketing, thus a crucial feature of Digital Marketing, is the first theme identified in the co-quote analysis. Some publications in Digital Marketing (Felix et al., 2017; A. J. Kim & Ko, 2012; Kraus et al., 2019; Michaelidou et al., 2011; Parsons & Lepkowska-White, 2018; Tafesse & Wien, 2018) and social media particularly tackle social media marketing (Durkin et al., 2013; Hanna et al., 2011; Kietzmann et al., 2011; Malthouse et al., 2013; Trainor et al., 2014; Weinberg & Pehlivan, 2011).

Marketing activities are carried out through online social media channels (e.g., Facebook, WhatsApp, Instagram), virtual consumer communities, and service social networks (Felix et al., 2017; A. J. Kim & Ko, 2012; Kraus et al., 2019; Michaelidou et al., 2011; Parsons & Lepkowska-White, 2018; Tafesse & Wien, 2018). Most of the studies that cite social media marketing (Felix et al., 2017; A. J. Kim & Ko, 2012; Kraus et al., 2019; Michaelidou et al., 2011; Parsons & Lepkowska-White, 2018; Tafesse & Wien, 2018) show different types of social media marketing and show different types of marketing performance from personal selling in traditional marketing. (Felix et al., 2017), for example, focus on social media marketing methods such as referring friends and locating new potential customer acquisitions through social media. (A. J. Kim & Ko, 2012) discovered that social media marketing had a truly beneficial impact on value equity, relationship equity, and brand equity. While (Felix et al., 2017) indicate that social media marketing referrals have a longer-term influence on consumer acquisition than traditional marketing operations.

The customer relationship is the second important aspect of Digital Marketing that marketing academics are looking inside. Many of the most cited articles (Agnihotri et al., 2016; Hennig-Thurau et al., 2010; Keinänen & Kuivalainen, 2015; Malthouse et al., 2013; Trainor et al., 2014) focus on customer relationship management, either from a theoretical perspective or as a critical variable in the context of Digital Marketing. Customer relationship management is the level to which a firm can create relationships with customers through media and messaging, other than the extent to which these impacts are interrelated fields (Malthouse et al., 2013). Customers are satisfied with information and interactivity when new media technologies are in the customer relationship management (Hennig-Thurau et al., 2010; Trainor et al., 2014). Customers have become linked and empowered thanks to the rise of social media instead of the traditional customer relationship management (Malthouse et al., 2013). Management of Customer Relationships is more satisfying social media's ability to provide quick information and connection between vendors and customers (Agnihotri, 2020).

The third subject is the effectiveness of digital marketing. Few articles directly examine the digital marketing (Järvinen & Karjaluoto, 2015; Quinton & Wilson, 2016; Trainor et al., 2014). These articles also discuss many performance difficulties in digital marketing, such as balancing the rapid growth of social media with strategy, trust, and competitiveness (Quinton & Wilson, 2016), other than the role of entrepreneurs in boosting corporate performance Marketing (Pakura & Rudeloff, 2020).

The fourth theme focuses on the digital marketing strategy (Berthon et al., 2012; Felix et al., 2017; Kouropalatis et al., 2019). Some papers on this topic focus on how digital marketing methods directly contribute to an integrated framework beyond the existing marketing theory (Felix et al., 2017).
The notion of innovation and technology is the subject of the fifth theme. While many articles deal with innovation, some are solely concerned with technology. Most of them are related to information technology (Camilleri, 2019; Trainor et al., 2011, 2014). Other topics, such as using information technology in SMEs, are directly related to Digital Marketing (Grandon & Pearson, 2004; Xiang & Gretzel, 2010).

C. Trends in Digital Marketing Publication
1. Year-by-year development trends

VOSViewer program was applied to evaluate 324 papers extracted from the Scopus database. The annual publication and citation rates for studies connected to CCT between 2001 and 2020. As a result, from 2010 and 2020, the number of publications increased progressively, peaking at 118, before falling to 14 in 2016. Since then, published research on Digital Marketing has risen dramatically, with modest replace in numbers from 2018 to 2020.

Increased internet use among the general public, improved access to internet technology, the emergence of social media, and changes in consumer behavior are all factors that have contributed to the increase in research output. Indeed, social media has a substantial impact on future marketing issues. Using social media to promote product sales to consumers can reduce marketing costs. The peak year (2015) is the year before or soon after significant digital marketing research was addressed in the business industry and MSMEs, in Fig. 3, for example. First, even though direct mail is one of the essential marketing communication tools in the industry, it is not being used to its full potential. Second, businesses use Digital Marketing to better client relationship communications, sales support, and awareness. Third, social media technologies have not been employed as frequently as traditional digital tools in Digital Marketing by businesses (Karjaluoto et al., 2015). Despite these results, additional study is required to fully understand the connection between digital marketing and SMEs. On the other hand, from 2017 to 2020, the number of citations climbed steadily each year (totaling 170 documents),
with more in 2020. (a total of 114 articles). This trend in the number of citations shows that researchers are getting increasingly interested in Digital Marketing despite fluctuations in the quantity of publications.

2. Participation of Countries and Regions.

A total of 79 countries are engaging in digital marketing research. Only 20 of these countries (see Figure 4) have at least ten articles, with the majority of them focusing on Social Media Marketing, followed by Customer Relationship Management. The publication count for Performance Digital Marketing is the smallest. The United Kingdom (total publications 61), the United States (total publications 49), and India (total publications 49) topped the rankings in terms of an overall number of publications (total publications 23). The findings indicate that these countries are at the forefront of social media marketing research in marketing communications. It was surprising because the United States and the United Kingdom are the two most industrialized countries. Algeria, Austria, Bosnia and Herzegovina, Bulgaria, Colombia, Ecuador, Georgia, Hungary, Kazakhstan, Kuwait, Lebanon, Liechtenstein, Mexico, Montenegro, Palestine, Peru, Philippines, Slovenia, Uganda, and Zimbabwe, on the other hand, have the fewest research publications related to Digital Marketing on SMEs, with only one publication each. The United Kingdom has the most citations in terms of the total number of citations. The top ten countries in citation order are United Kingdom (988 citations) > United States (722 citations) > Australia (253 citations) > Finland (255 citations) = France (255 citations) > China (188 citations) > Netherlands (164 citations) > Germany (162 citations) > Italy (151 citations) = Spain (151 citations).

The higher engagement of European countries may be related to the fact that Europe has been at the forefront of industry and technology. Furthermore, the United States is due to set an example. Since the last two decades, industrialized countries have used social media marketing and digital marketing. Its use may be discovered in several SMEs and industries that use digital marketing communications to grow their consumer base. It serves as a foundation for developing countries to research and practice digital marketing in SMEs. Meanwhile, limited involvement in digital marketing in Africa and Asia may be owing to a lack of internet access and inadequate networks, other than knowledge of the use of digital technology among Asian and African communities, particularly SMEs.

Figure 6 depicts the strength of collaboration among various countries, which is disparate into four groups, each with its hue. The relationship between them is interpreted by the line linking the nodes in Figure 4. In addition, the line's width indicates how strong the network is based on the number of co-authors, citations, or co-citations. (van Eck & Waltman, 2017). The length of the connecting line between nodes can be used to measure how similar two countries' research interests are, with a shorter distance suggesting a stronger resemblance and vice versa (van Eck et al., 2010). The number of publications is appeared by the size of each node in Figure 6. The United Arab Emirates has the greatest collaboration strength with other countries (total link strength = 4039) in cluster 1 (red). Italy has the higher network in cluster 2 (green hue) (all link strength = 9192). It demonstrates that Italy has made significant contributions to Digital Marketing and that its research and engagement with other nations on Digital Marketing in MSMEs continues to be strong. The United Kingdom has the dominant network in cluster 3 (blue color) with a total link strength of 10555, followed by the United States with 9192 total link strength. Lastly, Australia has the greatest collaboration strength in Cluster 4 amongst a total connection strength of 4295 (yellow).
3. Participation within an Institution

A total of 715 institutions were actively involved in SMEs Digital Marketing research. At least three papers on research linked to digital marketing in SMEs have been issued by eleven of them (Fig. 7). Griffith University (South East Queensland, Australia) has the most publications, followed by Bina Nusantara University (Indonesia) and the University of South Africa, as indicated in the graph. However, in terms of citations, Nanjing University has only one publication and the most cited institution (101 citations) followed by Temple University (101 citations) and Cranfield University (95 citations). It indicates that regardless of the total number of publications from one institution, the impact on other research can be very high.

![Figure 7. Participation within an institution](image)

For the analysis of the co-authorship network of institutions, institutions with a minimum of zero citations and a minimum of five publications (capturing the more active institutions) and institutions with a minimum of ten citations and a minimum of one publication (capturing the less active institutions) were taken into consideration (capturing the most influential institutions). The dominant co-authoring collaboration was Prince Sultan University and Assiut University (link strength = 2673), other than University Nottingham Business School the Netherlands and Tanta University Faculty of Commerce Egypt (link strength = 1935), lastly United Arab Emirates University and University of Sadat City of Egypt (connection strength = 1935).

![Figure 8. Vosviewers’ institution-by-institution analysis](image)
IV. CONCLUSION

To highlight the status and trend of applying Digital Marketing in SMEs, we did a bibliometric analysis of research articles relevant to Digital Marketing in SMEs in the last 19 years (2001-2020). The following are some of the study’s findings:

1. From 2001 to 2020, the Scopus database yielded 815 publications, including articles and conference papers, with the keywords "Digital Marketing" AND SME*.
2. 79 countries actively participate in digital marketing research on SMEs, with the United Kingdom being the most productive, followed by the United States, based on the number of publications and citations.
3. Griffith University was the most productive (in terms of articles), whereas Nanjing University was the most cited.
4. The papers and proceedings in this study were published in 324 different publications. Journal of Small Business and Enterprise Development is the most productive in publications and citations. The Journal of Small Business and Enterprise Development’s high productivity is an insight to stem from its more specific goal of publishing works relating to business in SMEs, including Digital Marketing, making it more prolific than other multidisciplinary journals.
5. In terms of citations, Haenlein, M is the most influential author, with his work being the most cited, followed by Kaplan, A.M.
6. According to marketing professionals, social media marketing is a prime component of digital marketing and the most investigated trending issue. The customer relationship is the second important aspect of Digital Marketing that marketing academics are looking inside. While many articles cover performance, just a handful particularly discuss the performance of Digital Marketing, making this the third most popular issue among researchers. The last is the topic of Digital Marketing Strategy, Innovation Concepts, and Technology in SMEs.

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