

# Marketing planning: A Bibliometric Analysis Using R

By

Nurul Nazuha Fateen binti Badry, Suddin Lada, Ang Hong Loong\*, and Faerozh Madli  
Faculty of Business, Economics and Accountancy  
Universiti Malaysia Sabah (UMS)  
Malaysia

*\*Corresponding Author: angkingsley@ums.edu.my*

Received date: 30.6.2023 | Revised date: 20.7.2023 | Accepted date: 22.8.2023

## ABSTRACT

The purpose of this study is to access marketing planning by employing a systematic literature review and bibliometric analysis, with a specific focus on the intellectual structure, volume, knowledge-development tendencies, and significance of the authors and sources. Data is collected from Scopus databases and analysed using Microsoft Excel and R Studio. By drawing upon an extensive amount of academic literature, we have created a searchable database comprising the 326 most relevant articles published within the last decade. Preliminary data indicates there has been a significant rise in the number of publications on marketing planning published in the previous ten years, from 2013 to 2022, as compared to the years before 2012. The bibliometric study identifies the most important journals, authors, and articles in the field. This research revealed the majority of journals and articles were analysed from Social Marketing Quarterly, a peer-reviewed academic journal focusing on social marketing research. A new research topic may arise, offering new research opportunities in both the broad fields of marketing planning and social marketing.

**Keywords:** marketing planning, systematic review, bibliometric analysis

## INTRODUCTION

### Existing knowledge of marketing planning

Marketing planning is the process of identifying tasks that will support business objectives and developing a timeline for when those tasks will be completed. Because it serves as the "why" and keeps the team focused on the ideas that will have the biggest impact, your marketing strategy should serve as the basis for the discussion. The output of the planning exercise can be viewed as specifying the "when and what" of the work the marketing team will carry out to acquire, cultivate, and retain customers (Kotler & Armstrong, 2010). Marketing planning serves as the team's guide as they work to produce significant results that support both marketing initiatives and the main business goal. Additionally, it informs and unifies the

company so that all customer-facing teams are coordinated (Hair, Sarstedt, Ringle & Mena, 2012). Marketing is any activity a company carries out to persuade a target audience to buy its products or services. Marketing aims to provide stand-alone value for prospects and consumers through content to illustrate product value, foster brand loyalty, and ultimately increase sales (Kotler & Lee, 1980). Marketing's objective is to create interest in the products or services that your company provides. Researching the market and discovering your ideal client's interests make this possible. Marketing encompasses all aspects of a business, including product development, sales, distribution plans, and advertising (Burton, 2015; Madli et al., 2023). Lamb, Hair and McDaniel (2012) assert that the main responsibility of management is planning, which involves determining in advance what needs to be done, when it needs to be done, how it should be done, and who will do it. The objectives of an organisation are determined intellectually, and various action plans are created to help the organisation achieve those objectives. It describes in detail how to achieve a particular objective.

### Research questions

The following research questions (RQ) are used to demonstrate the review activities and process using bibliometric, text-mining, and visualization tools (i.e., R Studio).

**Table 1: Research Questions (RQ)**

No.	RQ	Analysis Procedure
1	What is the current state and trend of publication in marketing planning?	<ul style="list-style-type: none"> <li>• Document Type</li> <li>• Source type</li> <li>• Total number of contributors</li> <li>• Number of publications by year/ country</li> <li>• Annual growth rate</li> </ul>
2	What are the most influential contributors to marketing planning?	<ul style="list-style-type: none"> <li>• Most influential authors</li> <li>• Most relevant sources</li> <li>• Most influential countries</li> <li>• Most influential source title.</li> </ul>
3	What is the most influential article, authors and sources on marketing planning?	<ul style="list-style-type: none"> <li>• Highly cited documents</li> <li>• Author Impact</li> <li>• Lotka's Law</li> <li>• Source Impact</li> <li>• Bradford's Law</li> <li>• Co-occurrence network</li> </ul>
4	How the theme of the publication has evolved in marketing planning?	<ul style="list-style-type: none"> <li>• Thematic evolution</li> <li>• Trend Topic</li> <li>• Word Dynamic</li> <li>• Word Cloud</li> <li>• Tree Map</li> </ul>

This article begins with a brief review of key definitions for marketing planning before moving on to a more in-depth discussion and analysis. The methodology section of the paper includes a description of the methods used in this investigation, including the data searching procedure, data collection, extraction, and analysis. The research findings were described in the section that followed. The study's results are highlighted in the discussion and conclusions section of this paper, which also discusses the study's limitations and suggests future research directions.

## LITERATURE REVIEW

Marketing planning is a vital step in the ongoing process of organizational planning. A methodical, logical way for readers to forecast the future is through marketing planning. As a means of innovative thinking and imaginative juggling of business variables, it examines the past, looks at the present, and attempts to project the future (Wilson, 2010). Even though it is well known that planning aids in an organization's survival, expansion, and success, planning has its own disadvantages. The fact that marketing planning has some drawbacks makes it a mixed blessing for the marketing organization. As a result, the marketing planner needs to be aware of the problems with this line of thinking (Lee & Kotler, 2015; Madli et al., 2019).

Prescriptive texts on marketing planning frequently ignore the context in which this process occurs and instead concentrate only on the process of marketing planning, describing it in terms of marketing audits, SWOT analyses, objective setting, etc. For instance, who oversees performing these tasks, as well as when, how often, and other specifics? Do they need to be carried out top-down or bottom-up? Which plan—the short-term or long-term one—comes first? And so forth. The company culture, size, internationalization, diversity, environmental instability, market growth rate, and technological advancement are just a few of the additional factors to take into account (Douglas & Craig, 2011).

One of the most common causes of poor marketing planning is the notion that marketing is something a marketing person "does" in their office. Hiring a marketing czar is frequently a last-ditch effort to put things right when all else has failed. The issue is that, regardless of the new hire's knowledge or abilities, they quickly learn that others hold all the sway, particularly when it comes to product development (the technical people), pricing (the accountants), customer service (the distribution department), and selling (the sales director). The promotional mix components are now available for the new employee to experiment with. The new executive quickly falls short as a result because she has no real power (Leppard & McDonald, 1987).

**Table 2:** Summary of previous studies in Marketing Planning

Source title	Authors	Title	Year
Information (Switzerland)	Kitsios, Mitsopoulou, Moustaka and Kamariotou	User-Generated Content in social media: A Twenty-Year Bibliometric Analysis in Hospitality	2022
Long Range Planning	Maucuer, Renaud, Ronteau and Muzellec	What can we learn from marketers? A bibliometric analysis of the marketing literature on business model research	2022

Sustainability (Switzerland)	Cano, Londoño-Pineda, Castro, Paz, Rodas and Arias	A Bibliometric Analysis and Systematic Review on E-Marketplaces, Open Innovation, and Sustainability	2022
Springer Proceedings in Business and Economics	Giroto, Moro and Irurita	Roles and Implications of Marketing Communications in Retail Settings: A Systematic Review	2022
Cuadernos de Gestion	Sustach, Baños-Pino and Valle	Research trends in technology in the context of smart destinations: a bibliometric analysis and network visualization [Tendencias de investigación en tecnología en el contexto de los destinos turísticos inteligentes: un análisis y visualización de red bibliométrica]	2022
Heliyon	Faruk, Rahman and Hasan	How digital marketing evolved over time: A bibliometric analysis on Scopus database	2021
Journal of Research in Marketing and Entrepreneurship	Lopes, Laurett, Antunes and Oliveira	Entrepreneurial marketing: a bibliometric analysis of the second decade of the 21st century and future agenda	2021
Marketing Intelligence and Planning	Donthu, Kumar and Pandey	A retrospective evaluation of Marketing Intelligence and Planning: 1983–2019	2021
Journal of Promotion Management	Kumar, Spais, Kumar and Sureka	A Bibliometric History of the Journal of Promotion Management (1992–2019)	2020

*TDE=Total documents examined*

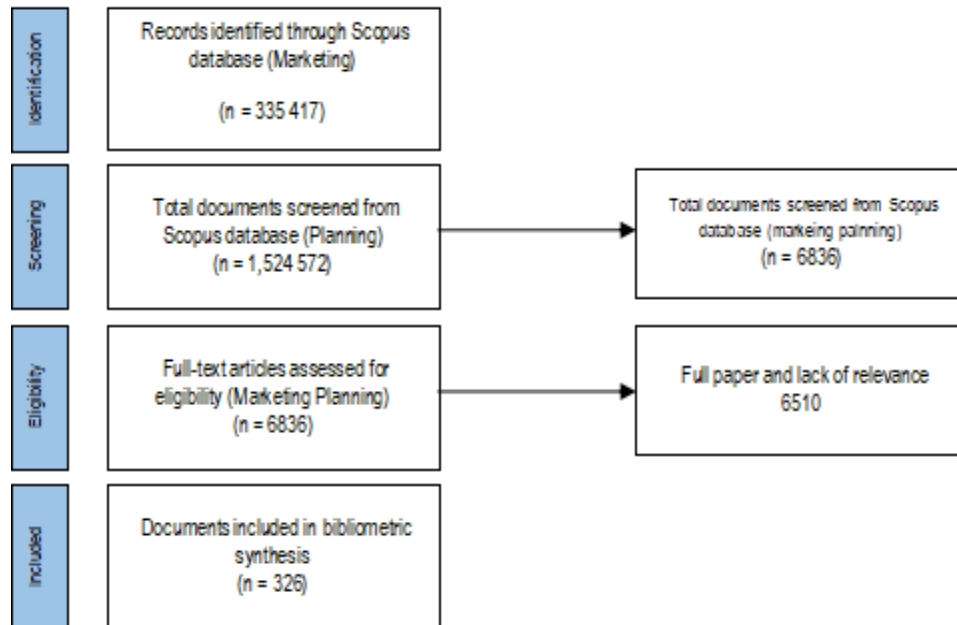
## METHODOLOGY

Bibliometric mapping is a research area in the discipline of bibliometrics (Borner, Chen & Boyack, 2003). Two distinct bibliometric features are how the bibliometric map is built and how it is represented graphically. In the bibliometrics literature, the production of bibliometric maps has attracted the most interest. According to research, various mapping methods were used to test the effects of variations in size similarity (Ahlgren, Jarneving & Rousseau, 2003; Boyack, Klavans & Borner, 2005).

Less attention was paid to the bibliometrics' graphical representation. Even though some researchers take issues with graphic representation seriously (Chen, Liu, Luo, Webber & Chen, 2016), most bibliometric literature articles rely on straightforward graphical output from computer programmes. This study draws on papers with the theme of research on marketing planning that were published in various scientific journals and other sources. A total of 172 articles were published because of the search.

PRISMA (Preferred Reporting Items for Systematic Reviews) and bibliometric analyses were used in this study (see Figure 1). This strategy provides a thorough analysis of the knowledge amassed over time (Visser, van Eck & Waltman, 2021). Bibliometric methods are frequently used to filter and improve bibliographic data, such as by locating pertinent articles in databases

(such as Scopus). The VOS viewer programme is now being used to display the data. Future research topics can be identified and forecast using bibliometric analysis (Paul & Criado, 2020). Scopus, an Elsevier database, contains more than 5,000 publications and more than 50 million entries (De Mauro, Greco & Grimaldi, 2016). Our university also acquired the Scopus database at the same time. This is the primary justification for our choice to make the Scopus database our primary source of data.



**Figure 1:** The PRISMA Diagram that We Used to Find, Screen, and Select Articles in Our Bibliometric Review

### Inclusion and exclusion criteria

First, all search results are checked for titles and abstracts using predetermined standards (refer to Table 3). Then, a review and summary of every public process that had advanced past the initial selection process was conducted. Each research project is rated according to the number of publications, the prestigious journals and authors, and the most well-liked research topics. Because there was a wealth of literature on marketing planning, we made the decision to compile it into a final database of 326 papers covering the years 2013 to 2022.

**Table 3:** Search criteria

Scopus Category	Searching criteria	No of article
Topic 1	“Marketing”	335,417
Topic 2	“Planning”	1,524,572
Topic 3	“Marketing planning”	25,906
Research years	2013-2022	6836
Document Type	Article, Books Chapter, Review, Conference Paper, and Book	6557
Language	English	6295
Subject area	Nursing, Psychology, Health Professions, Chemistry, Dentistry	326
Author name	All	326

### Extraction techniques

Table 3 reveals that 326 journal articles were exported in a format that was compatible with the applications. To increase research accuracy, a thorough analysis of the downloaded database was conducted. The extraction process begins by looking up the term "marketing planning" in a search engine. We applied VOS viewer and Excel (.csv) for this study. Bibliometric academic researchers can view bibliometric maps graphically using the free VOS viewer software. The most helpful article title, author, keyword, and citation information, including all references, can be found in the final Scopus database. Analysis of bibliometric data is beneficial because it can identify and foresee potential areas of future research (Paul & Criado, 2020).

### Choice of Synthesis Method (Analysis)

Descriptive analysis was part of the initial investigative process. To chart the evolution of publications on marketing planning over time, we created several Excel graphs. In the meantime, the bibliometric analysis method was applied in the next step. This method uses citations to identify the most significant papers and researchers on a particular subject. Other metrics like the H-index, total citations, and citations per publication may also be indicators of academic prominence. Co-citation analysis may concentrate on the journal, author, keyword co-citations, etc., depending on the results. With the help of the VOS viewer and R Studio, we were able to create "network maps" based on article linkages using our sample database.

## RESULTS

### Document Profiles

The articles discovered covered the period from 2013 to 2022. Publications didn't start to become more organised or increase in quantity gradually and steadily until after 2012. Based on the 326 total documents considered (Table 3), there is a -2.17% annual growth rate, an average of 9.215 citations per document, and 2282 total references. Additionally, most of the research in this field is published as articles 172, followed by books 69 and chapters 74 of books.

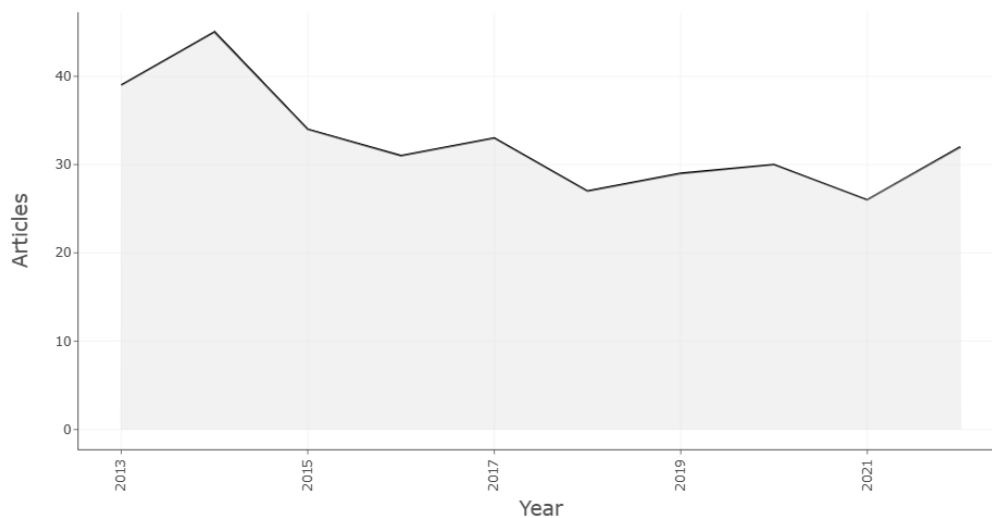
**Table 4:** Document Profiles

Description	Results
<b>Main information About Data</b>	
Timespan	2013:2022
Source (Journals, Book, etc)	230
Documents	326
Annual Growth Rate %	-2.17
Document Average Age	5.85
Average citations per doc	9.215
References	22828
<b>Document contents</b>	
Keywords Plus (ID)	1225

Authors of single-authored docs	989
<b>Authors Collaboration</b>	
Single-authored docs	92
Co-authors per Doc	2.74
International co-authorships %	24.54
<b>Document Types</b>	
Articles	172
Book	69
Book chapter	74
Conference Paper	5
Review	6

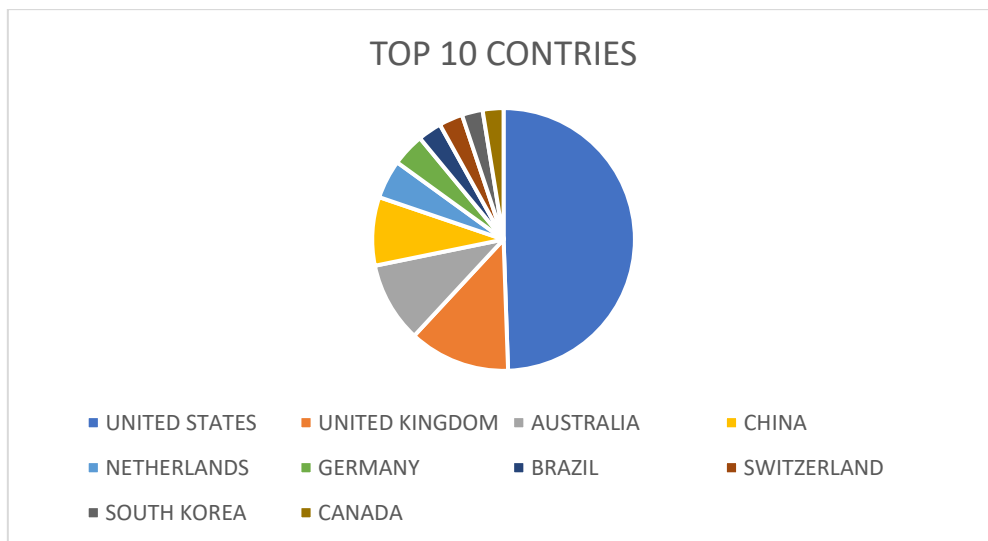
***RQ1: What is the current state and trend of publication in Marketing Planning?***

Figure 2 shows the increase in publications addressing the concepts of marketing planning over time. Prior studies have given the subject and scope of the study on marketing planning significant attention, based on the quantity of publications produced. The subject of marketing planning began to receive more attention in the early 2013s, despite the relatively low number of publications on the topic at the time, according to preliminary data from the Scopus database. There has been an increase since 2013 up until the present.



**Figure 2:** Annual scientific production (Total published articles from 2013-2022)

The information in Figure 2 above indicates that an increase of six publications in 2014 led to an increase of six articles, bringing the total number of articles from 39 to 45. There was a downward trend between 2015 and 2018, with 34 articles in 2015 and 27 articles in 2017. Due to the topic's limited media coverage, there may not have been as many articles. Later, with 29 articles published in 2019 and 30 articles published in 2022, there was a slight increase from the previous year. However, in 2021 and 2022, there were, respectively, 26 and 32 fewer articles. The year with the most articles published was 2014, with 45, followed by 2013 with 39, and 2015 with 34.



**Figure 3:** Top 10 highest publications by country

According to Figures 2 and 3, we can see the top ten countries and categories of papers related to marketing planning. The top three countries that publish the most articles in this field are the United States (135 articles) and the United Kingdom with 34 articles, followed by Australia with 27 articles. Overall, marketing planning is a topic that is actively discussed and is a popular place to discuss and exchange ideas.

***RQ2: What are the most influential contributors to Marketing Planning?***

For the second research question, the most influential authors, their output over time, the most influential nations and institutions, and the most influential source title in marketing planning are all examined. Table 5 showed that the most significant authors and articles were present in the sample database. Akbar, Garnelo-Gomez, Ndupu, Barnes and Foster (2022), Akbar, Foote, Soraghan, Millard and Spotswood (2021), Eagle, Czarnecka, Dahl and Liloyd (2020), Biroscak, Schneider, Tyson, Loi and Bryant (2018), Bryson and Daniels (2015) are the five most significant cited authors. The authors of Dwivedi, Khanna, Sharma and Susaeta (2016) have the most citations overall with 13, followed by Bryson and Daniels (2015) with 11 each. Two new authors (Akbar et al., 2022; Akbar et al., 2021) also contribute to the publication of marketing planning at the same time. The two articles with the most citations are shown in Table 3. Effectiveness of the Carbon and Bioenergy Market in Mitigating Carbon Emissions on Reforested Lands: A Case Study from the Southern United States and Handbook of Service Business: Management, Marketing, Innovation, and Internationalization are two of them, with a total of 13 and 11 citations, respectively.

**Table 5:** The most influential authors

Author	Year	Title	SO	TC	TCpY
Hassan & Sharma	2018	Tourism Events in Asia: Marketing and Development	Tourism Events in Asia: Marketing and Development	1	0.167



Dwivedi, Khanna, Sharma & Susaeta	2016	Efficacy of Carbon and Bioenergy Markets in Mitigating Carbon Emissions on Reforested Lands: A Case Study from Southern United States	Forest Policy and Economics	13	1.625
Akbar, Garnelo-Gomez, Ndupu, Barnes & Foster	2022	An Analysis of Social Marketing Practice: Factors Associated with Success	Health Marketing Quarterly	1	0.5
Akbar, Foote, Soraghan, Millard & Spotswood	2021	What Causes Social Marketing Programs to Fail? A Qualitative Study	Social Marketing Quarterly	5	1.667
Eagle, Czarnecka, Dahl & Lioyd	2020	Marketing Communications	Marketing Communications	3	0.75
Biroscak, Schneider, Tyson, Loi & Bryant	2018	Applying Tools from Human-Centered Design to Social Marketing Planning	Social Marketing Quarterly	6	1
Bryson & Daniels	2015	Handbook of Service Business: Management, Marketing, Innovation, and Internationalisation	Edward Elgar Publishing	11	1.222

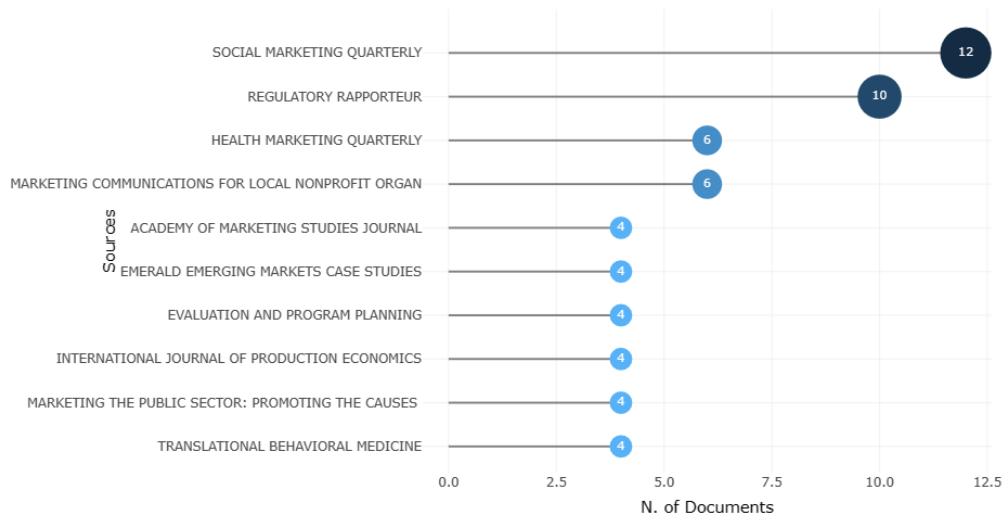
The most influential journals were present in the sample database, as shown in Table 6. Business and economics journals have typically dominated publications on marketing planning. The most publications are in the social marketing quarterly, which has 4 papers, a 5 h-index, and 84 citations. This situation is partially caused by the journal's having been published since 2013. The American Journal of Pharmaceutical Education has three publications, while Appetite has 89 and 27 citations. This study also reveals other journals outside of marketing planning, with fifty-seven and twenty-five (25) citations, respectively, for technological forecasting, social change, and translational behaviour medicine.

**Table 6:** The Most Influential Source

No.	Journal	PY	TC	NP	<i>h</i> index	<i>g</i> index	<i>m</i> index
1	Social Marketing Quarterly	2013	84	12	5	9	0.455
2	American Journal of Pharmaceutical Education	2018	27	3	3	3	0.5
3	Appetite	2016	89	3	3	3	0.375
4	Decision Support Systems	2017	84	3	3	3	0.429
5	Evaluation And Program Planning	2013	17	4	3	4	0.273
6	International Journal of Production Economics	2015	262	4	3	4	0.333
7	Regulatory Rapporteur	2013	12	10	3	3	0.273
8	Resources, Conservation and Recycling	2014	71	3	3	3	0.3
9	Technological Forecasting and Social Change	2015	57	3	3	3	0.333

<b>10</b>	<b>Translational Behavioral Medicine</b>	<b>2017</b>	<b>25</b>	<b>4</b>	<b>3</b>	<b>4</b>	<b>0.429</b>
-----------	--	-------------	-----------	----------	----------	----------	--------------

Notes: PY=publication year; TC=total citations; NP=number of publications; h=h-index; m=m index; and g=g-index.



**Figure 4: The Most Relevant Sources**

Peer review refers to the process whereby academics with expertise in the same field as the author and editor evaluate each contribution before it is published in one of the most esteemed academic journals (Kelly, Sadeghieh & Adeli, 2014). They ought to confirm that the paper advances the field, that the researcher employed sound methods, and that the new data is presented considering what is already known. The ten most pertinent sources for marketing planning are shown in Figure 4. The most prominent publication in this discussion is the social marketing journal, which is followed by the Regulatory Rapporteur journal, the marketing communications journal for regional non-profit organisations, and the quarterly journal of health marketing. Peer review is a crucial part of this journal's publication process because it ensures accuracy and contributions to the fields in which it is published.

***RQ3: What are the most influential articles and sources on marketing planning?***

**Highly cited documents/papers**

The top researchers in the world are recognised in this prestigious ranking, which recognises those whose Web of Science citation records are rated in the top 1% of their respective fields. A distinguished and fruitful academic career is demonstrated by inclusion in the list of works that have received the most citations. Furthermore, the visibility and potential reputation of a researcher's affiliations with more prestigious institutions are significantly increased by the number of times their publications are cited (Martinez, Herrera, Contreras, Ruiz & Herrera-Viedma, 2015). The total number of citations an article receives, however, is influenced by several external factors that don't seem to be directly related to the "quality" of the content of the article (Fahimifar, Mousavi, Mozaffari & Ausloos 2022). Table 7 lists the ten papers and documents that have been cited the most in marketing planning. One of the most notable is Morisson (2013), who has 207 (17.22%) total citations, followed by Tyagi, Choudhary, Cai and Yang (2015), who have 189 (15.72%) total citations. Total citations in other papers range

from 180 to 54. In contrast, the topics covered are varied and not particularly pertinent to marketing planning.

**Table 7: Most Cited Documents or Papers**

Paper	Total Citations	% Cited	TC per Year	% TCpY	Normalized TC	% NTC
Morrison (2013)	207	17.22	18.82	11.30	12.90	13.13
Tyagi, Choudhary, Cai & Yang (2015)	189	15.72	21.00	12.61	12.36	12.50
Page & Getz (2016)	180	14.98	22.50	13.51	13.51	13.75
Huang & Rust (2021)	146	12.14	48.67	29.22	14.94	15.21
Cimperman, Brencic, Trkman & Stanonik (2013)	116	9.65	10.55	6.33	7.23	7.36
Kajackaite & Gneezy (2017)	103	8.57	14.71	8.83	12.14	12.36
Bruhn, Karlan & Schoar (2018)	79	6.57	13.17	7.91	9.88	10.06
Hall (2013)	65	5.41	5.91	3.55	4.05	4.12
McGonagle, Beatty & Joffe (2014)	63	5.24	6.30	3.78	7.88	8.02
Hsu, Lin & Chiang (2013)	54	4.49	4.91	2.95	3.36	3.42

Notes: PY=publication year; TC=total citations

### Author Impact

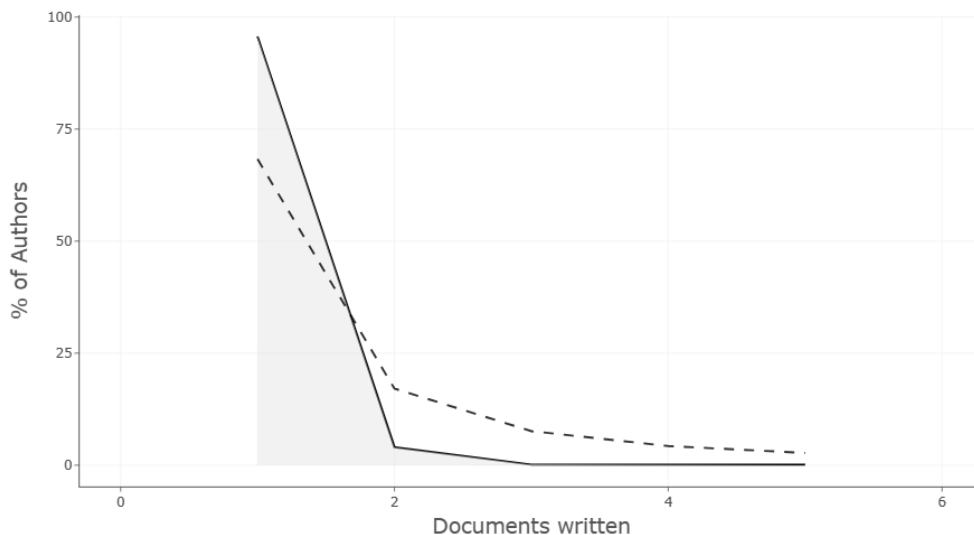
The h-index allows authors of papers that have been published to be ranked in terms of the influence they have had (Hirsch, 2005). The most widely used index is the H-index (an author has an h-index of h if they have at least h works that have been referenced h times). The G-index is composed of the G articles with the most citations (Egghe, 2006). The M-index is then calculated by dividing the H-index by the number of years a scientist has been working. According to Table 8, the authors who achieved the highest total of 2 h-indexes that describe significant impact were Bryant et al. (2014), Lai et al. (2021), Liu and Lopez (2016), Lloyd and Toogood (2014), Park (2015), Biroscak, Lefebvre, Schneider, Marshall, McDermott and Bryant (2014), and Weinstein (2013). Then came three authors with good impact who had an h-index value of 1: Khayame and Abdeljawad (2020), Adomaviciute (2016), and Agarwals, Ben-David and Yao (2017). The highest g-index values are also being displayed by Bryant et al. (2014), Lai et al. (2021), Liu and Lopez (2016), Lloyd and Toogood (2014), Park (2015), Biroscak et al. (2014), and Weinstein (2013). The authors with the highest levels of activity are Lai et al. (2021) with 0.667, Park (2015) with 0.222, Weinstein (2013) with 0.182, and Agarwals et al. (2017) and Adomaviciute (2016) with 0.142 and 0.125 respectively. Liu and Lopez (2016), with a total of 61 (22.68%) citations, is the most significant contributor with the highest citation (i.e., TC), followed by Lai et al. (2021) with 58 (21.56) and Biroscak et al. (2014) with 33 (12.27). All these data were generated between 2013 and 2021.

**Table 8: The 10 Most Impactful Author**

Author's	h-index	g-index	m-index	TC	%	NP	PY-start
Bryant et al.	2	2	0.2	31	11.52	2	2014

Lai et al.	2	2	0.667	58	21.56	2	2021
Liu & Lopez	2	2	0.25	61	22.68	2	2016
Lloyd & Toogood	2	2	0.2	16	5.95	2	2014
Park	2	2	0.222	22	8.18	2	2015
Biroscak et al.	2	2	0.2	33	12.27	2	2014
Weinstein	2	2	0.182	25	9.29	2	2013
Khayame & Abdeljawad	1	1	0.25	4	1.49	1	2020
Adomaviciute	1	1	0.125	8	2.97	1	2016
Agarwal et al.	1	1	0.143	11	4.09	1	2017

Notes: *PY*=publication year; *TC*=total citations; *NP*=number of publications; *h*=*h*-index; *m*=*m* index; and *g*=*g*-index.



Documents written	Number of Authors	Proportion of Authors
1	813	0.956
2	34	0.040
3	1	0.001

**Figure 5:** Lotka's Law

### Lotka's Law

Lotka's Law is the well-known "inverse square law of scientific creation." It asserts that there is a constant split between authors who publish a certain number of articles and those who only produce one article (Friedman, 2015). It describes how frequently authors publish in a specific field, in other words (Maz-Machado, Madrid, Jimenez-Fanjul & Leon-Mantero, 2017). Since then, a large number of academics from various fields have used Lotka's Law to examine author productivity and publications (Friedman, 2015). Figure 5 displays the observed and fitted Lotka's distributions. Between one and three papers have been published. Figure 5 above

clearly illustrates the connection between the number of participating authors and the number of papers published.

### Source impact

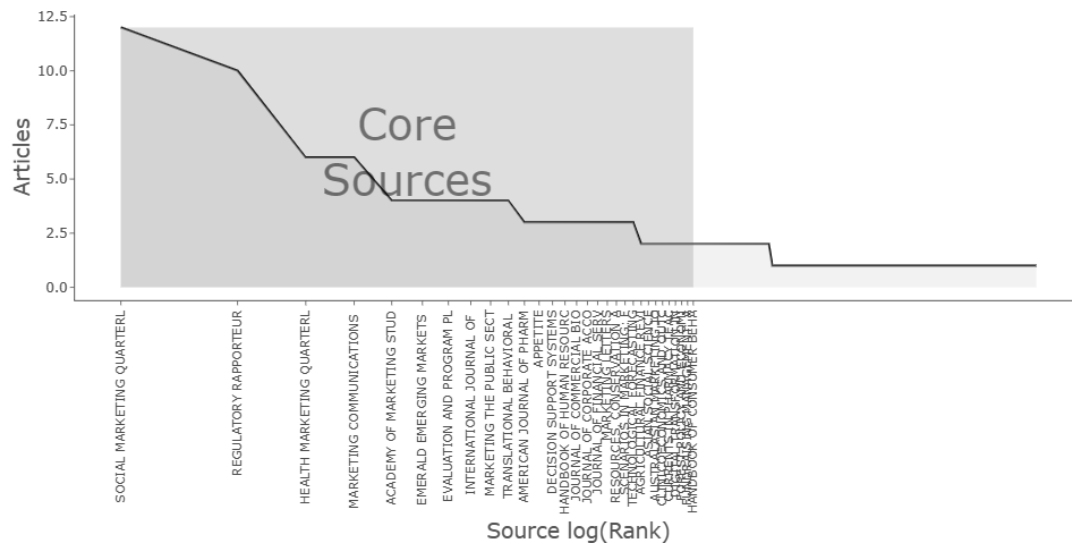
Journal evaluations are based on more factors than just the volume of work produced or its relevance (Rusydiana & As-Salafiyah, 2021). The h-index, g-index, m-index, and total citation of each journal that publishes a paper about marketing planning, however, are also used in this study to determine their impact. The International Journal of Social Marketing Quarterly first by the statistics in Table 9, with a h-index of 5, g-index of 9, m-index of 0.455, and 84 total citations. As a result, the study of marketing planning is most significantly influenced by Social Marketing Quarterly. American Journal of Pharmaceutical Education, Appellate, Decision Support System, Evaluation and Program Planning, International Journal of Production Economic, Regulatory Rapporteur and until Translational Behavioural Medicine are respectively, with a 3 h-index. Their overall citation count ranged from 12 to 262.

**Table 9:** The 10 most impactful source

Element	h_index	g_index	m_index	TC	%	NP	Py_start
Social Marketing Quarterly	5	9	0.455	84	10.74	12	2013
American Journal of Pharmaceutical Education	3	3	0.5	27	3.71	3	2018
Appetite	3	3	0.375	89	12.23	3	2016
Decision Support Systems	3	3	0.429	84	11.54	3	2017
Evaluation and Program Planning	3	4	0.273	17	2.36	4	2013
International Journal of Production Economics	3	4	0.333	262	35.99	4	2015
Regulatory Rapporteur	3	3	0.273	12	1.65	10	2013
Resources, Conservation and Recycling	3	3	0.3	71	9.75	3	2014
Technological Forecasting and Social Change	3	3	0.333	57	7.83	3	2015
Translational Behavioral Medicine	3	4	0.429	25	3.43	4	2017

### Bradford's Law

Bradford's rule predicts that the number of journals in the second and third zones will be  $n$  and  $n^2$  times bigger than the first zone, so it should be able to forecast the total number of journals carrying articles on a subject if the numbers for the core and middle zones are known (Fairthorne, 2005; Garfield, 1980). Once the total number of articles is known, it should be able to calculate how much pertinent information is missing from an incomplete search. Given the time-consuming and significant work required to find sources on a topic for a systematic review, it would be helpful for such research if Bradford's law accurately predicted the amount (and, if feasible, quality) of the literature (Friedman, 2015).



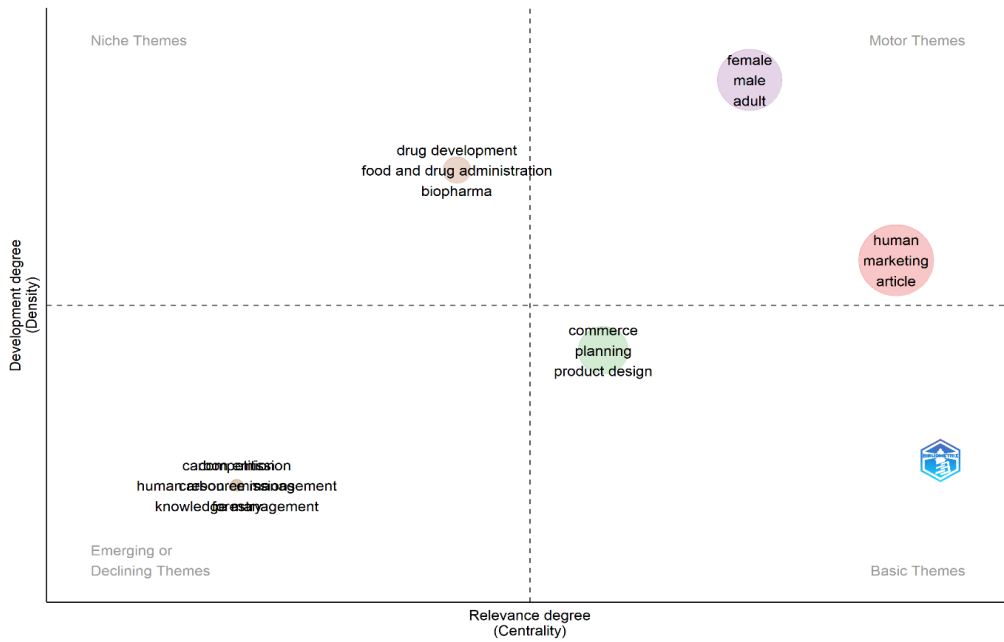
**Figure 6: Bradford's Law**

The classification of journals into core, intermediate, and wide groups is shown in the image above and is based on the Bradford law. The important journal groupings are highlighted in colour and annotated. The journals with the highest output of marketing planning research at a given time fall under this category. The ten most pertinent sources for marketing planning are shown in Figure 6. The most well-known journal in this field is the Social Marketing Quarterly (12 papers), which is followed in importance by the Regulatory Rapporteur (10 papers), the Health Marketing Quarterly, and Marketing Communications for local non-profit organisations targets and tools, both of which have 6 papers. Peer review is a crucial part of this journal's publishing process, which ensures its accuracy and value to the fields in which it is published.

### Co-occurrence Network

A co-occurrence network, also known as a semantic network, is a text analysis technique that shows potential connections between people, organisations, ideas, bacteria, and other biological entities (Segev, 2021). Co-occurrence network construction and visualisation are made possible by text that has been stored electronically and is text mining-compliant. Co-occurrence analysis can be defined as simply counting matched data within a collection unit (Cohen et al., 2005; van Eck & Waltman, 2021). The high-frequency keywords with a close co-occurrence relationship in marketing planning are shown in Figure 7. Three significant clusters have been generated, as shown in Figure 7. Cluster 1 includes "Strategic Planning," "Commerce," "Planning," and "Drug Industry." The words "Marketing" and "Human" make up Cluster 2. Cluster 3 consists of five networks, including "Social Marketing," "Human," "Aged," and "Health Care Planning."





**Figure 8:** The Thematic Evolution

### Trend topic

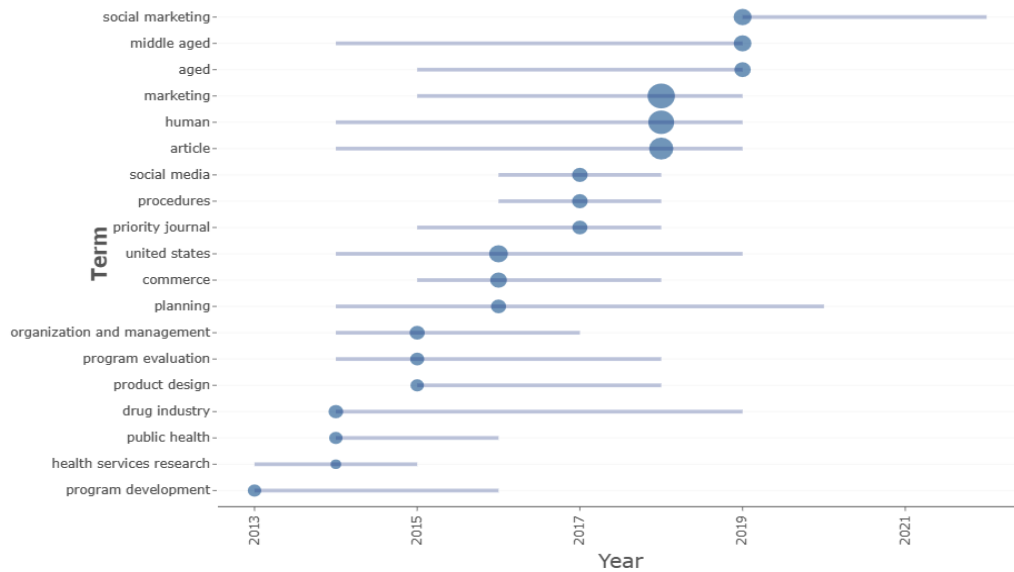
This study also looks at trends in the field; the figure below gives an overview of how the term has changed over time and by year. The word is used more frequently and more recently further to the right as it rises in the list, helping to distinguish between themes that have been used for a long time and those that have only recently (Bolarios, 2022; Yardibi, Firat & Teke, 2021). Figure 9 and Table 10 show that the topic's development began to significantly pick up steam in 2014. The topic has been used since 2013, as shown in the data's description below, especially in marketing planning studies that discuss the United States ( $F = 21$ ), commerce ( $F = 14$ ), organisation and management ( $F = 10$ ), planning ( $F = 10$ ), and drug industry with a total frequency of 9. Additionally, the United States, the drug industry, product design, and public health all emerged as separate but related topics between 2014 and 2019. Despite the passage of time, the frequency of the subjects that have appeared since 2014 is still low. In comparison to other themes, "United States" and "Commerce" are the subjects that are frequently brought up from 2014 to 2019; the frequency of these topics is highest in the years q1, q2, and q3. The three topics have begun to gain popularity in the marketing planning sector, which is also explained by this information.

**Table 10:** The trend topic year

Trend Topic	Frequency (F)	%	year_q1	Year med	year_q3
0	21	21.4	2014	2016	2019
Commerce	14	14.29	2015	2016	2018
Organization and Management	10	10.2	2014	2015	2017
Planning	10	10.2	2014	2016	2020
Drug Industry	9	9.18	2014	2014	2019



Program Evaluation	8	8.16	2014	2015	2018
Product Design	7	7.14	2015	2015	2018
Public Health	7	7.14	2014	2014	2016
Program Development	7	7.14	2013	2013	2016
Health Services Research	5	5.1	2013	2014	2015



**Figure 9:** The Trend Topic

### Word dynamic

The dataset claims that word dynamics demonstrate how words alter over time. The presentation can also be determined by adding up the leading keywords, the author's keywords, the title, or the abstract. Based on the total number of occurrences each year, both approaches are used. Figure 10 depicts the growth of the top keywords based on the total number of occurrences each year in the field of marketing planning research from 2013 through 2022. Statistics in Figures 10 and 11 demonstrate that several significant keywords began to noticeably increase in 2013 and have continued to do so ever since. The use of dynamic keywords like "marketing," "human," and "female" has clearly increased from 2013 to 2022, according to an analysis of "word dynamic" data. These findings are consistent with many other analyses, including the "trend topic" and "word cloud" analyses. This discovery also explains the selection of phrases as significant and time-trending.

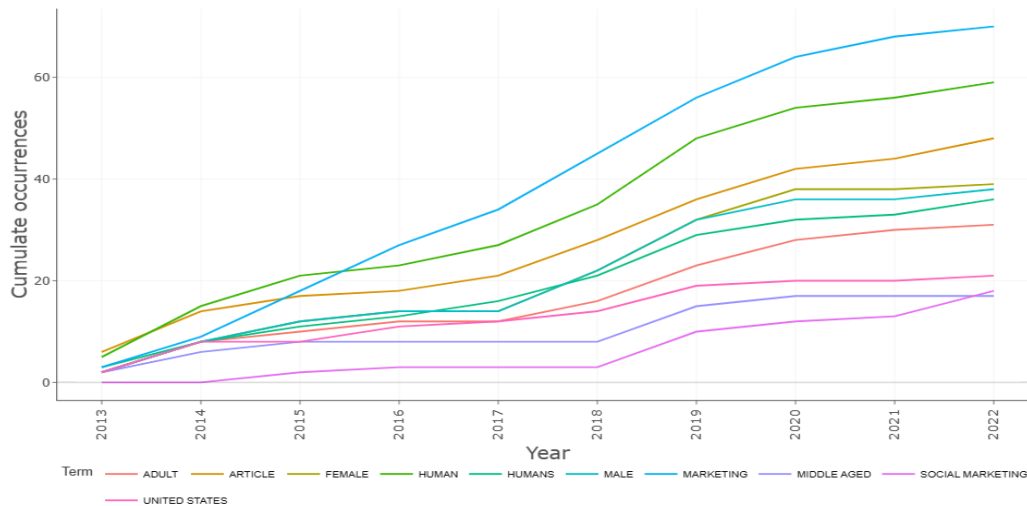


Figure 10: The word dynamic (2013-2022)



Figure 11: The word cloud

### Tree map

The nodes of a tree diagram are displayed as layered rectangles in tree maps, which are a graphical representation of hierarchical data (Lockhart, 2021). They are made up of several stacked, proportionately sized rectangles. In a data tree, a large rectangle denotes a branch, and smaller rectangles display the size of each node within that branch. The top 50 words based on keyword plus, the author's keywords, the title (bigrams), and the abstract (trigrams) are represented in various tree maps in Figure 12 respectively. The nodes of a tree diagram are displayed as layered rectangles in tree maps, which are a graphical representation of hierarchical data (Lockhart, 2021). They are made up of several stacked, proportionately sized rectangles. In a data tree, a large rectangle denotes a branch, and smaller rectangles display the

size of each node within that branch. The top 50 words based on keyword plus, the author's keywords, the title (bigrams), and the abstract (trigrams) are represented in various tree maps in Figure 12 respectively.

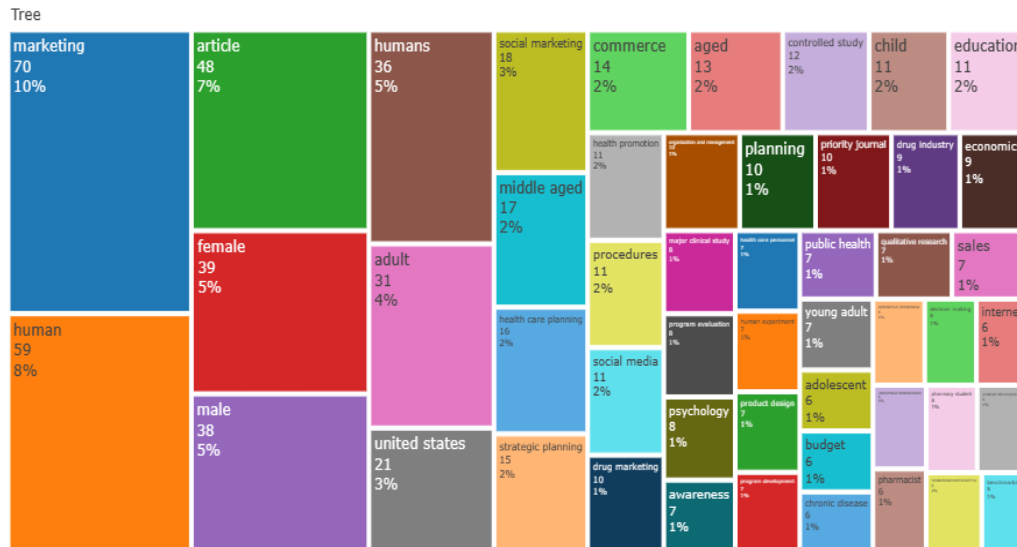


Figure 12. The Tree Map

## CONCLUSION

The goal of the study was to ascertain how marketing planning research would develop between 2013 and 2020. The 326 documents consulted for this study show a yearly increase in marketing planning-related research. Regarding the authors, Bryant et al. (2014), who frequently conduct research while planning a marketing strategy. They conducted continuous research in marketing planning because they have justified that marketing planning is critical for every business's success as it offers a road map for reaching organizations' goals and objectives. The marketing planning research must be continuously improved because there appears to be a lack of studies in marketing planning research due to rapid changes in the marketing landscape and organizations have practical challenges in studying planning processes (Kotler, Keller, Ang, Tan & Leong, 2018; Boone, Kurtz & Berston, 2019).

## REFERENCES

Adomavičiūtė, K. (2016). *The influence of consumer morality factors on consumer decision to donate to charity or to buy cause-related product* (Doctoral dissertation, Vilniaus universitetas).

Agarwal, S., Ben-David, I., & Yao, V. (2017). Systematic mistakes in the mortgage market and lack of financial sophistication. *Journal of Financial Economics*, 123(1), 42-58.

Ahlgren, P., Jarneving, B., & Rousseau, R. (2003). Requirements for a cocitation similarity

- measure, with special reference to Pearson's correlation coefficient. *Journal of the American Society for Information Science and Technology*, 54(6), 550-560.
- Akbar, M. B., Foote, L., Soraghan, C., Millard, R., & Spotswood, F. (2021). What causes social marketing programs to fail? A qualitative study. *Social Marketing Quarterly*, 27(2), 99-116.
- Akbar, M. B., Garnelo-Gomez, I., Ndupu, L., Barnes, E., & Foster, C. (2022). An analysis of social marketing practice: Factors associated with success. *Health marketing quarterly*, 39(4), 356-376.
- Biroscak, B. J., Schneider, T., Martinez Tyson, D., Aguado Loi, C. X., & Bryant, C. A. (2018). Applying tools from human-centered design to social marketing planning. *Social Marketing Quarterly*, 24(2), 63-73.
- Bolaños, F. (2022). Mapping the Trending Topics of Bibliometric-enhanced Information Retrieval. *CEUR Workshop Proceedings*, 3230, 61–70.
- Boone, L. E., Kurtz, D. L., & Berston, S. (2019). *Contemporary business*. John Wiley & Sons.
- Bolaños, F. (2022). Mapping the Trending Topics of Bibliometric-enhanced Information Retrieval. In *CEUR Workshop Proc* (Vol. 3230, pp. 61-70).
- Börner, K., Chen, C. M., & Boyack K. (2003). Visualizing Knowledge Domains. In: B. Cronin (Ed.), *Annual Review of Information Science & Technology*, 37, Medford, NJ: Information Today, Inc./American Society for Information Science and Technology, chapter 5, 179-255.
- Boyack, K. W., Klavans, R., & Börner, K. (2005). Mapping the backbone of science. *Scientometrics*, 64, 351-374.
- Bruhn, M., Karlan, D., & Schoar, A. (2018). The impact of consulting services on small and medium enterprises: Evidence from a randomized trial in Mexico. *Journal of Political Economy*, 126(2), 635-687.
- Bryant, C. A., Courtney, A. H., McDermott, R. J., Lindenberger, J. H., Swanson, M. A., Mayer, A. B., Panzera, A. D., Khaliq, M., Schneider, T., Wright, A. P., Lefebvre, R. C., & Biroscak, B. J. (2014). Community-based prevention marketing for policy development: A new planning framework for coalitions. *Social Marketing Quarterly*, 20(4), 219-246.
- Bryson, J. R., & Daniels, P. W. (Eds.). (2015). *Handbook of service business: Management, marketing, innovation and internationalisation*. Edward Elgar Publishing.
- Burton, S. (2015), *Marketing 9th Edition, The Ultimate Resources of Marketing Professionals*. Personal Higher Education AU.
- Cano, J. A., Londoño-Pineda, A., Castro, M. F., Paz, H. B., Rodas, C., & Arias, T. (2022). A Bibliometric Analysis and Systematic Review on E-Marketplaces, Open Innovation, and Sustainability. *Sustainability*, 14(9), 5456.
- Chen, D., Liu, Z., Luo, Z., Webber, M., & Chen, J. (2016). Bibliometric and visualized analysis of emergent research. *Ecological Engineering*, 90, 285-293.
- Chen, X., Lun, Y., Yan, J., Hao, T., & Weng, H. (2019). Discovering thematic change and evolution of utilizing social media for healthcare research. *BMC Medical Informatics and Decision Making*, 19(Suppl 2). <https://doi.org/10.1186/s12911-019-0757-4>
- Cimperman, M., Brenčič, M. M., Trkman, P., & Stanonik, M. D. L. (2013). Older adults' perceptions of home telehealth services. *Telemedicine and e-Health*, 19(10), 786-790.
- Cobo, M. J., López-Herrera, A. G., Herrera-Viedma, E., & Herrera, F. (2011). An approach for detecting, quantifying, and visualizing the evolution of a research field: A practical application to the Fuzzy Sets Theory field. *Journal of informetrics*, 5(1), 146-166.
- Cohen, A. M., Hersh, W. R., Dubay, C., & Spackman, K. (2005). Using co-occurrence network structure to extract synonymous gene and protein names from MEDLINE abstracts. *BMC Bioinformatics*, 6, 1–15. <https://doi.org/10.1186/1471-2105-6-103>
- De Mauro, A., Greco, M., & Grimaldi, M. (2016). A formal definition of Big Data based on its

- essential features. *Library Review*, 65(3), 122–135. <https://doi.org/10.1108/LR-06-2015-0061>
- Donthu, N., Kumar, S., & Pandey, N. (2021). A retrospective evaluation of Marketing Intelligence and Planning: 1983–2019. *Marketing Intelligence & Planning*, 39(1), 48-73.
- Douglas, S. P., & Craig, C. S. (2011). Convergence and divergence: Developing a semiglobal marketing strategy. *Journal of International Marketing*, 19(1), 82-101.
- Dr. Joe F. Hair Jr (2012) Marketing Research, Mc Graw Hill, 6<sup>th</sup> edition, University of South Alabama U.S.A
- Dwivedi, P., Khanna, M., Sharma, A., & Susaeta, A. (2016). Efficacy of carbon and bioenergy markets in mitigating carbon emissions on reforested lands: A case study from Southern United States. *Forest Policy and Economics*, 67, 1-9.
- Eagle, L., Czarnecka, B., Dahl, S., & Lloyd, J. (2020). *Marketing communications*. Routledge.
- Egghe, L. (2006). Theory and practise of the g-index. *Scientometrics*, 69(1), 131–152. <https://doi.org/10.1007/s11192-006-0144-7>
- Fahimifar, S., Mousavi, K., Mozaffari, F., & Ausloos, M. (2022). Identification of the most important external features of highly cited scholarly papers through 3 (i.e., Ridge, Lasso, and Boruta) feature selection data mining methods: Identification of the most important external features of highly cited scholarly pape. *Quality and Quantity*, 3(0123456789). <https://doi.org/10.1007/s11135-022-01480-z>
- Fairthorne, R. A. (2005). Empirical hyperbolic distributions (Bradford-Zipf-Mandelbrot) for bibliometric description and prediction. *Journal of documentation*, 61(2), 171-193.
- Faruk, M., Rahman, M., & Hasan, S. (2021). How digital marketing evolved over time: A bibliometric analysis on scopus database. *Heliyon*, 7(12).
- Friedman, A. (2015). The Power of Lotka’s Law Through the Eyes of R. *Romanian Statistical Review*, 2, 69–77.
- Garfield, E. (1980). Is information retrieval in the arts and humanities inherently different from that in science? The effect that ISI®'s citation index for the arts and humanities is expected to have on future scholarship. *The Library Quarterly*, 50(1), 40-57.
- Giroto, M., Moro, M., & Irurita, A. M. A. (2022). Roles and Implications of Marketing Communications in Retail Settings: A Systematic Review. *Advances in National Brand and Private Label Marketing*, 173-199.
- Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40, 414-433.
- Hall, C. M. (2013). *Wine, food, and tourism marketing*. Routledge.
- Hassan, A., & Sharma, A. (Eds.). (2018). *Tourism Events in Asia: Marketing and Development*. Routledge.
- He, J., Chen, H., Chen, Y., Tang, X., & Zou, Y. (2019). Diverse visualization techniques and methods of moving-object-trajectory data: A review. *ISPRS International Journal of Geo-Information*, 8(2), 63.
- Hirsch, J. E. (2005). An index to quantify an individual's scientific research output. *Proceedings of the National academy of Sciences*, 102(46), 16569-16572.
- Hsu, C. L., Lin, C. C. J., & Chiang, H. S. (2013). The effects of blogger recommendations on customers’ online shopping intentions. *Internet Research*, 23(1), 69-88.
- Huang, M. H., & Rust, R. T. (2021). A strategic framework for artificial intelligence in marketing. *Journal of the Academy of Marketing Science*, 49, 30-50.
- Industrial Goods in International Markets” Cranfield Institute of Technology PhD Kenneth R. Deans (2015) Marketing BSc. La Rochelle Business Scholl
- Kajackaite, A., & Gneezy, U. (2017). Incentives and cheating. *Games and Economic Behavior*, 102, 433-444.

- Kelly, J., Sadeghieh, T., & Adeli, K. (2014). Peer review in scientific publications: benefits, critiques, & a survival guide. *Ejifcc*, 25(3), 227.
- Khayame, H. A., & Abdeljawad, M. M. (2020). Systems thinking in upstream social marketing: Using soft systems methodology to improve midwifery policy in Jordan. *Social Marketing Quarterly*, 26(2), 167-183.
- Kitsios, F., Mitsopoulou, E., Moustaka, E., & Kamariotou, M. (2022). User-generated content in social media: A twenty-year bibliometric analysis in hospitality. *Information*, 13(12), 574.
- Kotler, P., Keller, K. L., Ang, S. H., Tan, C. T., & Leong, S. M. (2018). *Marketing management: an Asian perspective*. London: Pearson.
- Kotler, P., & Lee, N. (2008). *Social marketing: Influencing behaviors for good*. Sage.
- Kotler, P., & Armstrong, G. M. (2010). *Principles of marketing*. Pearson Education India.
- Kollatt D.T. et al (1972) "Strategic Marketing" Holt, Reinhart, and Winston
- Kumar, S., Spais, G. S., Kumar, D., & Sureka, R. (2020). A bibliometric history of the journal of promotion management (1992–2019). *Journal of Promotion Management*, 26(1), 97-120.
- Lai, K. H., Zha, D., Xu, J., Zhao, Y., Wang, G., & Hu, X. (2021, June). Revisiting time series outlier detection: Definitions and benchmarks. In *Thirty-fifth conference on neural information processing systems datasets and benchmarks track (round 1)*.
- Lamb, C. W., Hair, J. F., & McDaniel, C. (2012). *Marketing*. Cengage Learning.
- Lee, N. R., & Kotler, P. (2015). *Social marketing: Changing behaviors for good*. Sage Publications.
- Leppard, J., & McDonald, M. (1987). A re-appraisal of the role of marketing planning. *Journal of Marketing Management*, 3(2), 159-171.
- Liu, Y., & Lopez, R. A. (2016). The impact of social media conversations on consumer brand choices. *Marketing Letters*, 27, 1-13.
- Lockhart, L. (2021). Automating assessment of human embryo images and time-lapse sequences for IVF treatment.
- Lopes, J. M., Laurett, R., Antunes, H., & Oliveira, J. (2021). Entrepreneurial marketing: a bibliometric analysis of the second decade of the 21st century and future agenda. *Journal of Research in Marketing and Entrepreneurship*, 23(2), 295-317.
- Madli, F., Sondoh, S., Totu, A., Ramayah, T., Janin, Y., Annuar, S. N. S., & Cham, T. H. (2023). Modelling organ donation information adoption among Malaysian youth using the information adoption model (IAM). *International Journal of Pharmaceutical and Healthcare Marketing*, (ahead-of-print).
- Madli, F., Sondoh Jr, S. L., Totu, A., & Annuar, S. N. S. (2019). Exploring the impact of religious belief for organ donation promotion through social media platform: a critical review. *Malaysian Journal of Business and Economics (MJBE)*, (1).
- Martínez, M. A., Herrera, M., Contreras, E., Ruíz, A., & Herrera-Viedma, E. (2015). Characterizing highly cited papers in Social Work through H-Classics. *Scientometrics*, 102(2), 1713–1729. <https://doi.org/10.1007/s11192-014-1460-y>
- Maucuer, R., Renaud, A., Ronteau, S., & Muzellec, L. (2022). What can we learn from marketers? A bibliometric analysis of the marketing literature on business model research. *Long Range Planning*, 55(5), 102219.
- Maz-Machado, A., Madrid, M. J., Jiménez-Fanjul, N., & León-Mantero, C. (2017). Empirical examination of Lotka's law for information science and library science. *Pakistan Journal of Information Management & Libraries (PJIM&L)*, 19, 37-51.
- McGonagle, A. K., Beatty, J. E., & Joffe, R. (2014). Coaching for workers with chronic illness: evaluating an intervention. *Journal of Occupational Health Psychology*, 19(3), 385.
- Morrison, A. M. (2013). *Marketing and managing tourism destinations*. Routledge.

- Page, S. J., & Getz, D. (2016). Event studies: Theory, research and policy for planned events.
- Park, T. (2015). Direct marketing and the structure of farm sales: An unconditional quantile regression approach. *Journal of Agricultural and Resource Economics*, 266-284.
- Paul, J., & Criado, A. R. (2020). The art of writing literature review: What do we know and what do we need to know? *International Business Review*, 29(4), 101717. <https://doi.org/10.1016/j.ibusrev.2020.101717>
- Rashid, S., Rehman, S. U., Ashiq, M., & Khattak, A. (2021). A scient metric analysis of forty-three years of research in social support in education (1977–2020). *Education Sciences*, 11(4). <https://doi.org/10.3390/educsci11040149>
- Rusydia, A. S., & As-Salafiyah, A. (2021). Islamic Moral Economy: A Scientometric Using R. *Library Philosophy and Practice*, 2021.
- Sustacha, I., Baños-Pino, J. F., & del Valle, E. (2022). Research trends in technology in the context of smart destinations: a bibliometric analysis and network visualization. *Cuadernos de Gestión*, 22(1), 161-173.
- Tyagi, S., Choudhary, A., Cai, X., & Yang, K. (2015). Value stream mapping to reduce the lead-time of a product development process. *International Journal of Production Economics*, 160, 202-212.
- van Eck, N. J., & Waltman, L. (2021). Manual de VOSviewer. *Univeriteit Leiden, July*. [http://www.vosviewer.com/documentation/Manual\\_VOSviewer\\_1.6.1.pdf](http://www.vosviewer.com/documentation/Manual_VOSviewer_1.6.1.pdf)
- Visser, M., van Eck, N. J., & Waltman, L. (2021). Large-scale comparison of bibliographic data sources: Scopus, web of science, dimensions, crossref, and microsoft academic. *Quantitative Science Studies*, 2(1), 20–41. [https://doi.org/10.1162/qss\\_a\\_00112](https://doi.org/10.1162/qss_a_00112)
- Weinstein, A. (2013). *Handbook of market segmentation: Strategic targeting for business and technology firms*. Routledge.
- Wilson, R. M. (2010). *Strategic marketing planning*. Routledge.
- Yardibi, F., Firat, M. Z., & Teke, C. E. (2021). Trend topics in animal science: A bibliometric analysis using CiteSpace. *Turkish Journal of Veterinary and Animal Sciences*, 45(5), 833–840. <https://doi.org/10.3906/VET-2001-103>